APPENDIX D

Groundwater, Soil, and Air Sample Laboratory Analytical Reports

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Analysis Report

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

Report Date: June 02, 2017

Project: PES PHL Annual GWS

Submittal Date: 05/19/2017
Group Number: 1803720
PO Number: PES PHL ANNUAL
State of Sample Origin: PA

Client Sample Description	Lancaster Labs (LL) #
S-38-20170517 Grab Groundwater	9003659
RW-701-20170517 Grab Groundwater	9003660
S-369-20170517 Grab Groundwater	9003661
S-223-20170517 Grab Groundwater	9003662
S-222-20170517 Grab Groundwater	9003663
S-380-20170517 Grab Groundwater	9003664
RW-108-20170517 Grab Groundwater	9003665
S-249-20170517 Grab Groundwater	9003666
S-354-20170517 Grab Groundwater	9003667
S-351-20170517 Grab Groundwater	9003668
S-142SRTF-20170518 Grab Groundwater	9003669
S-143SRFT-20170518 Grab Groundwater	9003670
S-120DSRTF-20170518 Grab Groundwater	9003671
S-106DSRTF-20170518 Grab Groundwater	9003672
S-116SRTF-20170518 Grab Groundwater	9003673
S-113SRTF-20170518 Grab Groundwater	9003674
S-112SRTF-20170518 Grab Groundwater	9003675
S-145SRTF-20170518 Grab Groundwater	9003676
S-122SRTF-20170518 Grab Groundwater	9003677
S-144SRTF-20170518 Grab Groundwater	9003678
S-137SRTF-20170519 Grab Groundwater	9003679
S-138SRTF-20170519 Grab Groundwater	9003680
S-74DISRTF-20170519 Grab Groundwater	9003681
S-76DSRTF-20170519 Grab Groundwater	9003682
S-74D2SRTF-20170519 Grab Groundwater	9003683
S-139SRTF-20170519 Grab Groundwater	9003684

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our current scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ . To request copies of prior scopes of accreditation, contact your project manager.

Electronic Copy To Stantec Attn: Andrew Bradley

Respectfully Submitted,



Amek Carter
Specialist

(717) 556-7252

Sample Description: S-38-20170517 Grab Groundwater
PES PHL Annual GWS S-38

LL Sample # WW 9003659
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/17/2017 09:01 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PHL38

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.		0.5	1	1
10945	1,2-Dichloroethane	107-06-2	N.D.		0.5	1	1
10945	Ethylbenzene	100-41-4	N.D.		0.5	1	1
10945	Isopropylbenzene	98-82-8	N.D.		0.5	2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	1	1
10945	Toluene	108-88-3	N.D.		0.5	1	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.		0.5	2	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.		0.5	2	1
10945	Xylene (Total)	1330-20-7	N.D.		0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	0.1	J	0.1	0.5	1
14249	Benzo(a)anthracene	56-55-3	N.D.		0.1	0.5	1
14249	Benzo(a)pyrene	50-32-8	N.D.		0.1	0.5	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.		0.1	0.5	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.		0.1	0.5	1
14249	Chrysene	218-01-9	N.D.		0.1	0.5	1
14249	Fluorene	86-73-7	1		0.1	0.5	1
14249	Naphthalene	91-20-3	1		0.1	0.5	1
14249	Phenanthrene	85-01-8	0.3	J	0.1	0.5	1
14249	Pyrene	129-00-0	0.1	J	0.1	0.5	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D.		0.0096	0.029	1
Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.099	J	0.090	1.0	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.
This sample was filtered in the lab for dissolved metals.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	D171461AA	05/26/2017 09:10	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D171461AA	05/26/2017 09:10	Anita M Dale	1
14249	PAHs 8270C MINI	SW-846 8270C	1	17142WAA026	05/26/2017 16:56	Joseph M Gambler	1
07807	BNA Water Extraction	SW-846 3510C	1	17142WAA026	05/22/2017 16:00	Kate E Lutte	1

*=This limit was used in the evaluation of the final result

Sample Description: S-38-20170517 Grab Groundwater
PES PHL Annual GWS S-38

LL Sample # WW 9003659
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/17/2017 09:01 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PHL38

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	8011 Master Master	SW-846 8011	1	171430015A	05/25/2017 05:10	Heather M Miller	1
07786	EDB Extraction (8011)	SW-846 8011	1	171430015A	05/23/2017 11:45	Olivia Arosemena	1
06035	Lead	SW-846 6020	1	171450605003A	05/30/2017 10:24	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	171450605003	05/25/2017 23:45	Denise L Trimby	1

*=This limit was used in the evaluation of the final result

Sample Description: RW-701-20170517 Grab Groundwater
PES PHL Annual GWS RW-701

LL Sample # WW 9003660
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/17/2017 09:38 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH701

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	16,000		100	200	200
10945	1,2-Dichloroethane	107-06-2	N.D.		10	20	20
10945	Ethylbenzene	100-41-4	1,300		10	20	20
10945	Isopropylbenzene	98-82-8	35	J	10	40	20
10945	Methyl Tertiary Butyl Ether	1634-04-4	5,100		10	20	20
10945	Toluene	108-88-3	9,100		100	200	200
10945	1,2,4-Trimethylbenzene	95-63-6	870		10	40	20
10945	1,3,5-Trimethylbenzene	108-67-8	250		10	40	20
10945	Xylene (Total)	1330-20-7	6,900		10	20	20
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	35		0.1	0.5	1
14249	Benzo(a)anthracene	56-55-3	0.2	J	0.1	0.5	1
14249	Benzo(a)pyrene	50-32-8	N.D.		0.1	0.5	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.		0.1	0.5	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.		0.1	0.5	1
14249	Chrysene	218-01-9	0.5	J	0.1	0.5	1
14249	Fluorene	86-73-7	91		0.1	0.5	1
14249	Naphthalene	91-20-3	470		0.5	3	5
14249	Phenanthrene	85-01-8	230		0.5	3	5
14249	Pyrene	129-00-0	11		0.1	0.5	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	0.64		0.096	0.29	10
Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.17	J	0.090	1.0	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.
This sample was filtered in the lab for dissolved metals.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	D171461AA	05/26/2017 09:34	Anita M Dale	20
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	D171461AA	05/26/2017 09:58	Anita M Dale	200
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D171461AA	05/26/2017 09:34	Anita M Dale	20

*=This limit was used in the evaluation of the final result

Sample Description: RW-701-20170517 Grab Groundwater
PES PHL Annual GWS RW-701

LL Sample # WW 9003660
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/17/2017 09:38 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH701

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	2	D171461AA	05/26/2017 09:58	Anita M Dale	200
14249	PAHs 8270C MINI	SW-846 8270C	1	17142WAA026	05/26/2017 17:25	Joseph M Gambler	1
14249	PAHs 8270C MINI	SW-846 8270C	1	17142WAA026	05/27/2017 06:50	Anthony P Bauer	5
07807	BNA Water Extraction	SW-846 3510C	1	17142WAA026	05/22/2017 16:00	Kate E Lutte	1
10398	8011 Master Master	SW-846 8011	1	171430015A	06/01/2017 14:14	Heather M Miller	10
07786	EDB Extraction (8011)	SW-846 8011	1	171430015A	05/23/2017 11:45	Olivia Arosemena	1
06035	Lead	SW-846 6020	1	171450605003A	05/30/2017 10:29	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	171450605003	05/25/2017 23:45	Denise L Trimby	1

*=This limit was used in the evaluation of the final result

Sample Description: S-369-20170517 Grab Groundwater
PES PHL Annual GWS S-369

LL Sample # WW 9003661
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/17/2017 10:17 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH369

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	1,900		5	10	10
10945	1,2-Dichloroethane	107-06-2	N.D.		5	10	10
10945	Ethylbenzene	100-41-4	17		5	10	10
10945	Isopropylbenzene	98-82-8	71		5	20	10
10945	Methyl Tertiary Butyl Ether	1634-04-4	47		5	10	10
10945	Toluene	108-88-3	62		5	10	10
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.		5	20	10
10945	1,3,5-Trimethylbenzene	108-67-8	5	J	5	20	10
10945	Xylene (Total)	1330-20-7	42		5	10	10
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	0.6		0.1	0.5	1
14249	Benzo(a)anthracene	56-55-3	0.1	J	0.1	0.5	1
14249	Benzo(a)pyrene	50-32-8	N.D.		0.1	0.5	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.		0.1	0.5	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.		0.1	0.5	1
14249	Chrysene	218-01-9	0.1	J	0.1	0.5	1
14249	Fluorene	86-73-7	2		0.1	0.5	1
14249	Naphthalene	91-20-3	3		0.1	0.5	1
14249	Phenanthrene	85-01-8	2		0.1	0.5	1
14249	Pyrene	129-00-0	0.4	J	0.1	0.5	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D.		0.0097	0.029	1
Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.67	J	0.090	1.0	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.
This sample was filtered in the lab for dissolved metals.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	D171461AA	05/26/2017 10:22	Anita M Dale	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D171461AA	05/26/2017 10:22	Anita M Dale	10
14249	PAHs 8270C MINI	SW-846 8270C	1	17142WAA026	05/26/2017 17:55	Joseph M Gambler	1
07807	BNA Water Extraction	SW-846 3510C	1	17142WAA026	05/22/2017 16:00	Kate E Lutte	1

*=This limit was used in the evaluation of the final result

Sample Description: S-369-20170517 Grab Groundwater
PES PHL Annual GWS S-369

LL Sample # WW 9003661
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/17/2017 10:17 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH369

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	8011 Master Master	SW-846 8011	1	171430015A	05/25/2017 05:41	Heather M Miller	1
07786	EDB Extraction (8011)	SW-846 8011	1	171430015A	05/23/2017 11:45	Olivia Arosemena	1
06035	Lead	SW-846 6020	1	171450605003A	05/30/2017 10:12	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	171450605003	05/25/2017 23:45	Denise L Trimby	1

*=This limit was used in the evaluation of the final result

Sample Description: S-223-20170517 Grab Groundwater
PES PHL Annual GWS S-223

LL Sample # WW 9003662
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/17/2017 11:04 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH223

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	37		0.5	1	1
10945	1,2-Dichloroethane	107-06-2	N.D.		0.5	1	1
10945	Ethylbenzene	100-41-4	26		0.5	1	1
10945	Isopropylbenzene	98-82-8	1	J	0.5	2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	1	1
10945	Toluene	108-88-3	9		0.5	1	1
10945	1,2,4-Trimethylbenzene	95-63-6	50		0.5	2	1
10945	1,3,5-Trimethylbenzene	108-67-8	21		0.5	2	1
10945	Xylene (Total)	1330-20-7	87		0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.		0.1	0.5	1
14249	Benzo(a)anthracene	56-55-3	N.D.		0.1	0.5	1
14249	Benzo(a)pyrene	50-32-8	N.D.		0.1	0.5	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.		0.1	0.5	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.		0.1	0.5	1
14249	Chrysene	218-01-9	N.D.		0.1	0.5	1
14249	Fluorene	86-73-7	N.D.		0.1	0.5	1
14249	Naphthalene	91-20-3	0.1	J	0.1	0.5	1
14249	Phenanthrene	85-01-8	N.D.		0.1	0.5	1
14249	Pyrene	129-00-0	N.D.		0.1	0.5	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D.		0.0096	0.029	1
Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.40	J	0.090	1.0	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.
This sample was filtered in the lab for dissolved metals.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	D171461AA	05/26/2017 10:46	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D171461AA	05/26/2017 10:46	Anita M Dale	1
14249	PAHs 8270C MINI	SW-846 8270C	1	17142WAA026	05/26/2017 18:25	Joseph M Gambler	1
07807	BNA Water Extraction	SW-846 3510C	1	17142WAA026	05/22/2017 16:00	Kate E Lutte	1

*=This limit was used in the evaluation of the final result

Sample Description: S-223-20170517 Grab Groundwater
PES PHL Annual GWS S-223

LL Sample # WW 9003662
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/17/2017 11:04 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH223

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	8011 Master Master	SW-846 8011	1	171430015A	05/25/2017 06:29	Heather M Miller	1
07786	EDB Extraction (8011)	SW-846 8011	1	171430015A	05/23/2017 11:45	Olivia Arosemena	1
06035	Lead	SW-846 6020	1	171450605003A	05/30/2017 10:31	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	171450605003	05/25/2017 23:45	Denise L Trimby	1

*=This limit was used in the evaluation of the final result

Sample Description: S-222-20170517 Grab Groundwater
PES PHL Annual GWS S-222

LL Sample # WW 9003663
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/17/2017 11:45 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH222

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	3		0.5	1	1
10945	1,2-Dichloroethane	107-06-2	N.D.		0.5	1	1
10945	Ethylbenzene	100-41-4	2		0.5	1	1
10945	Isopropylbenzene	98-82-8	N.D.		0.5	2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	1	1
10945	Toluene	108-88-3	2		0.5	1	1
10945	1,2,4-Trimethylbenzene	95-63-6	2	J	0.5	2	1
10945	1,3,5-Trimethylbenzene	108-67-8	0.6	J	0.5	2	1
10945	Xylene (Total)	1330-20-7	8		0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.		0.1	0.5	1
14249	Benzo(a)anthracene	56-55-3	N.D.		0.1	0.5	1
14249	Benzo(a)pyrene	50-32-8	N.D.		0.1	0.5	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.		0.1	0.5	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.		0.1	0.5	1
14249	Chrysene	218-01-9	N.D.		0.1	0.5	1
14249	Fluorene	86-73-7	N.D.		0.1	0.5	1
14249	Naphthalene	91-20-3	0.3	J	0.1	0.5	1
14249	Phenanthrene	85-01-8	N.D.		0.1	0.5	1
14249	Pyrene	129-00-0	N.D.		0.1	0.5	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D.		0.0096	0.029	1
Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.		0.090	1.0	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.
This sample was filtered in the lab for dissolved metals.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	D171461AA	05/26/2017 11:10	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D171461AA	05/26/2017 11:10	Anita M Dale	1
14249	PAHs 8270C MINI	SW-846 8270C	1	17142WAA026	05/26/2017 18:55	Joseph M Gambler	1
07807	BNA Water Extraction	SW-846 3510C	1	17142WAA026	05/22/2017 16:00	Kate E Lutte	1

*=This limit was used in the evaluation of the final result

Sample Description: S-222-20170517 Grab Groundwater
PES PHL Annual GWS S-222

LL Sample # WW 9003663
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/17/2017 11:45 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH222

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	8011 Master Master	SW-846 8011	1	171430015A	05/25/2017 06:45	Heather M Miller	1
07786	EDB Extraction (8011)	SW-846 8011	1	171430015A	05/23/2017 11:45	Olivia Arosemena	1
06035	Lead	SW-846 6020	1	171450605003A	05/30/2017 10:32	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	171450605003	05/25/2017 23:45	Denise L Trimby	1

*=This limit was used in the evaluation of the final result

Sample Description: S-380-20170517 Grab Groundwater
PES PHL Annual GWS S-380

LL Sample # WW 9003664
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/17/2017 12:38 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH380

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.		0.5	1	1
10945	1,2-Dichloroethane	107-06-2	N.D.		0.5	1	1
10945	Ethylbenzene	100-41-4	N.D.		0.5	1	1
10945	Isopropylbenzene	98-82-8	N.D.		0.5	2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	1	1
10945	Toluene	108-88-3	N.D.		0.5	1	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.		0.5	2	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.		0.5	2	1
10945	Xylene (Total)	1330-20-7	N.D.		0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.		0.1	0.5	1
14249	Benzo(a)anthracene	56-55-3	0.2	J	0.1	0.5	1
14249	Benzo(a)pyrene	50-32-8	0.2	J	0.1	0.5	1
14249	Benzo(b)fluoranthene	205-99-2	0.3	J	0.1	0.5	1
14249	Benzo(g,h,i)perylene	191-24-2	0.2	J	0.1	0.5	1
14249	Chrysene	218-01-9	0.3	J	0.1	0.5	1
14249	Fluorene	86-73-7	N.D.		0.1	0.5	1
14249	Naphthalene	91-20-3	N.D.		0.1	0.5	1
14249	Phenanthrene	85-01-8	0.3	J	0.1	0.5	1
14249	Pyrene	129-00-0	0.4	J	0.1	0.5	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D.		0.0097	0.029	1
Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.16	J	0.090	1.0	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.
This sample was filtered in the lab for dissolved metals.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	D171461AA	05/26/2017 11:34	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D171461AA	05/26/2017 11:34	Anita M Dale	1
14249	PAHs 8270C MINI	SW-846 8270C	1	17142WAA026	05/26/2017 19:25	Joseph M Gambler	1
07807	BNA Water Extraction	SW-846 3510C	1	17142WAA026	05/22/2017 16:00	Kate E Lutte	1

*=This limit was used in the evaluation of the final result

Sample Description: S-380-20170517 Grab Groundwater
PES PHL Annual GWS S-380

LL Sample # WW 9003664
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/17/2017 12:38 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH380

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	8011 Master Master	SW-846 8011	1	171430015A	05/25/2017 07:01	Heather M Miller	1
07786	EDB Extraction (8011)	SW-846 8011	1	171430015A	05/23/2017 11:45	Olivia Arosemena	1
06035	Lead	SW-846 6020	1	171450605003A	05/30/2017 10:34	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	171450605003	05/25/2017 23:45	Denise L Trimby	1

*=This limit was used in the evaluation of the final result

Sample Description: RW-108-20170517 Grab Groundwater
PES PHL Annual GWS RW-108

LL Sample # WW 9003665
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/17/2017 10:25 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH108

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.5	1	1
10945	1,2-Dichloroethane	107-06-2	N.D.	0.5	1	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1	1
10945	Isopropylbenzene	98-82-8	N.D.	0.5	2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1	1
10945	Toluene	108-88-3	N.D.	0.5	1	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.5	2	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.5	2	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	0.5	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	0.5	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	0.5	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	0.5	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	0.5	1
14249	Chrysene	218-01-9	N.D.	0.1	0.5	1
14249	Fluorene	86-73-7	N.D.	0.1	0.5	1
14249	Naphthalene	91-20-3	N.D.	0.1	0.5	1
14249	Phenanthrene	85-01-8	N.D.	0.1	0.5	1
14249	Pyrene	129-00-0	N.D.	0.1	0.5	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D.	0.0096	0.029	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.090	1.0	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.
This sample was filtered in the lab for dissolved metals.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	D171461AA	05/26/2017 11:58	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D171461AA	05/26/2017 11:58	Anita M Dale	1
14249	PAHs 8270C MINI	SW-846 8270C	1	17142WAA026	05/26/2017 19:54	Joseph M Gambler	1
07807	BNA Water Extraction	SW-846 3510C	1	17142WAA026	05/22/2017 16:00	Kate E Lutte	1

*=This limit was used in the evaluation of the final result

Sample Description: RW-108-20170517 Grab Groundwater
PES PHL Annual GWS RW-108

LL Sample # WW 9003665
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/17/2017 10:25 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH108

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	8011 Master Master	SW-846 8011	1	171430015A	05/25/2017 07:17	Heather M Miller	1
07786	EDB Extraction (8011)	SW-846 8011	1	171430015A	05/23/2017 11:45	Olivia Arosemena	1
06035	Lead	SW-846 6020	1	171450605003A	05/30/2017 10:36	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	171450605003	05/25/2017 23:45	Denise L Trimby	1

*=This limit was used in the evaluation of the final result

Sample Description: S-249-20170517 Grab Groundwater
PES PHL Annual GWS S-249

LL Sample # WW 9003666
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/17/2017 11:55 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH249

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.5	1	1
10945	1,2-Dichloroethane	107-06-2	N.D.	0.5	1	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1	1
10945	Isopropylbenzene	98-82-8	N.D.	0.5	2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1	1
10945	Toluene	108-88-3	N.D.	0.5	1	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.5	2	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.5	2	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	0.5	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	0.5	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	0.5	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	0.5	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	0.5	1
14249	Chrysene	218-01-9	N.D.	0.1	0.5	1
14249	Fluorene	86-73-7	N.D.	0.1	0.5	1
14249	Naphthalene	91-20-3	N.D.	0.1	0.5	1
14249	Phenanthrene	85-01-8	N.D.	0.1	0.5	1
14249	Pyrene	129-00-0	N.D.	0.1	0.5	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D.	0.0095	0.029	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.090	1.0	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.
This sample was filtered in the lab for dissolved metals.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	D171461AA	05/26/2017 12:22	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D171461AA	05/26/2017 12:22	Anita M Dale	1
14249	PAHs 8270C MINI	SW-846 8270C	1	17142WAA026	05/26/2017 20:24	Joseph M Gambler	1
07807	BNA Water Extraction	SW-846 3510C	1	17142WAA026	05/22/2017 16:00	Kate E Lutte	1

*=This limit was used in the evaluation of the final result

Sample Description: S-249-20170517 Grab Groundwater
PES PHL Annual GWS S-249

LL Sample # WW 9003666
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/17/2017 11:55 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH249

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	8011 Master Master	SW-846 8011	1	171430015A	05/25/2017 07:33	Heather M Miller	1
07786	EDB Extraction (8011)	SW-846 8011	1	171430015A	05/23/2017 11:45	Olivia Arosemena	1
06035	Lead	SW-846 6020	1	171450605003A	05/30/2017 10:37	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	171450605003	05/25/2017 23:45	Denise L Trimby	1

*=This limit was used in the evaluation of the final result

Sample Description: S-354-20170517 Grab Groundwater
PES PHL Annual GWS S-354

LL Sample # WW 9003667
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/17/2017 13:25 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH354

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.		0.5	1	1
10945	1,2-Dichloroethane	107-06-2	N.D.		0.5	1	1
10945	Ethylbenzene	100-41-4	N.D.		0.5	1	1
10945	Isopropylbenzene	98-82-8	2	J	0.5	2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	1	1
10945	Toluene	108-88-3	N.D.		0.5	1	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.		0.5	2	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.		0.5	2	1
10945	Xylene (Total)	1330-20-7	N.D.		0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	0.2	J	0.1	0.5	1
14249	Benzo(a)anthracene	56-55-3	N.D.		0.1	0.5	1
14249	Benzo(a)pyrene	50-32-8	N.D.		0.1	0.5	1
14249	Benzo(b)fluoranthene	205-99-2	0.1	J	0.1	0.5	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.		0.1	0.5	1
14249	Chrysene	218-01-9	0.2	J	0.1	0.5	1
14249	Fluorene	86-73-7	0.4	J	0.1	0.5	1
14249	Naphthalene	91-20-3	N.D.		0.1	0.5	1
14249	Phenanthrene	85-01-8	0.1	J	0.1	0.5	1
14249	Pyrene	129-00-0	0.3	J	0.1	0.5	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D.		0.0094	0.028	1
Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.094	J	0.090	1.0	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.
This sample was filtered in the lab for dissolved metals.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	D171461AA	05/26/2017 12:46	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D171461AA	05/26/2017 12:46	Anita M Dale	1
14249	PAHs 8270C MINI	SW-846 8270C	1	17142WAA026	05/26/2017 20:54	Joseph M Gambler	1
07807	BNA Water Extraction	SW-846 3510C	1	17142WAA026	05/22/2017 16:00	Kate E Lutte	1

*=This limit was used in the evaluation of the final result

Sample Description: S-354-20170517 Grab Groundwater
PES PHL Annual GWS S-354

LL Sample # WW 9003667
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/17/2017 13:25 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH354

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	8011 Master Master	SW-846 8011	1	171430015A	05/25/2017 07:48	Heather M Miller	1
07786	EDB Extraction (8011)	SW-846 8011	1	171430015A	05/23/2017 11:45	Olivia Arosemena	1
06035	Lead	SW-846 6020	1	171450605003A	05/30/2017 10:39	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	171450605003	05/25/2017 23:45	Denise L Trimby	1

*=This limit was used in the evaluation of the final result

Sample Description: S-351-20170517 Grab Groundwater
PES PHL Annual GWS S-351

LL Sample # WW 9003668
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/17/2017 14:20 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH351

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.		0.5	1	1
10945	1,2-Dichloroethane	107-06-2	N.D.		0.5	1	1
10945	Ethylbenzene	100-41-4	N.D.		0.5	1	1
10945	Isopropylbenzene	98-82-8	2	J	0.5	2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	1	1
10945	Toluene	108-88-3	N.D.		0.5	1	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.		0.5	2	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.		0.5	2	1
10945	Xylene (Total)	1330-20-7	N.D.		0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.		0.1	0.5	1
14249	Benzo(a)anthracene	56-55-3	N.D.		0.1	0.5	1
14249	Benzo(a)pyrene	50-32-8	N.D.		0.1	0.5	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.		0.1	0.5	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.		0.1	0.5	1
14249	Chrysene	218-01-9	N.D.		0.1	0.5	1
14249	Fluorene	86-73-7	0.1	J	0.1	0.5	1
14249	Naphthalene	91-20-3	N.D.		0.1	0.5	1
14249	Phenanthrene	85-01-8	N.D.		0.1	0.5	1
14249	Pyrene	129-00-0	N.D.		0.1	0.5	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D.		0.0095	0.029	1
Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.		0.090	1.0	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.
This sample was filtered in the lab for dissolved metals.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	D171461AA	05/26/2017 13:10	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D171461AA	05/26/2017 13:10	Anita M Dale	1
14249	PAHs 8270C MINI	SW-846 8270C	1	17142WAA026	05/27/2017 04:51	Anthony P Bauer	1
07807	BNA Water Extraction	SW-846 3510C	1	17142WAA026	05/22/2017 16:00	Kate E Lutte	1

*=This limit was used in the evaluation of the final result

Sample Description: S-351-20170517 Grab Groundwater
PES PHL Annual GWS S-351

LL Sample # WW 9003668
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/17/2017 14:20 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH351

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	8011 Master Master	SW-846 8011	1	171430015A	05/25/2017 08:04	Heather M Miller	1
07786	EDB Extraction (8011)	SW-846 8011	1	171430015A	05/23/2017 11:45	Olivia Arosemena	1
06035	Lead	SW-846 6020	1	171450605003A	05/30/2017 10:41	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	171450605003	05/25/2017 23:45	Denise L Trimby	1

*=This limit was used in the evaluation of the final result

Sample Description: S-142SRTF-20170518 Grab Groundwater
PES PHL Annual GWS S-142SRTF

LL Sample # WW 9003669
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/18/2017 08:02 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH142

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.		0.5	1	1
10945	1,2-Dichloroethane	107-06-2	N.D.		0.5	1	1
10945	Ethylbenzene	100-41-4	N.D.		0.5	1	1
10945	Isopropylbenzene	98-82-8	N.D.		0.5	2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	250		0.5	1	1
10945	Toluene	108-88-3	N.D.		0.5	1	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.		0.5	2	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.		0.5	2	1
10945	Xylene (Total)	1330-20-7	N.D.		0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.		0.1	0.5	1
14249	Benzo(a)anthracene	56-55-3	N.D.		0.1	0.5	1
14249	Benzo(a)pyrene	50-32-8	N.D.		0.1	0.5	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.		0.1	0.5	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.		0.1	0.5	1
14249	Chrysene	218-01-9	N.D.		0.1	0.5	1
14249	Fluorene	86-73-7	N.D.		0.1	0.5	1
14249	Naphthalene	91-20-3	N.D.		0.1	0.5	1
14249	Phenanthrene	85-01-8	N.D.		0.1	0.5	1
14249	Pyrene	129-00-0	N.D.		0.1	0.5	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D.		0.0096	0.029	1
Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.24	J	0.090	1.0	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.
This sample was filtered in the lab for dissolved metals.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	D171461AA	05/26/2017 13:34	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D171461AA	05/26/2017 13:34	Anita M Dale	1
14249	PAHs 8270C MINI	SW-846 8270C	1	17142WAA026	05/27/2017 05:21	Anthony P Bauer	1
07807	BNA Water Extraction	SW-846 3510C	1	17142WAA026	05/22/2017 16:00	Kate E Lutte	1

*=This limit was used in the evaluation of the final result

Sample Description: S-142SRTF-20170518 Grab Groundwater
PES PHL Annual GWS S-142SRTF

LL Sample # WW 9003669
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/18/2017 08:02 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH142

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	8011 Master Master	SW-846 8011	1	171430015A	05/25/2017 08:20	Heather M Miller	1
07786	EDB Extraction (8011)	SW-846 8011	1	171430015A	05/23/2017 11:45	Olivia Arosemena	1
06035	Lead	SW-846 6020	1	171460605003A	05/30/2017 06:00	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	171460605003	05/28/2017 21:00	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: S-143SRFT-20170518 Grab Groundwater
PES PHL Annual GWS S-143SRFT

LL Sample # WW 9003670
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/18/2017 08:28 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH143

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.5	1	1
10945	1,2-Dichloroethane	107-06-2	N.D.	0.5	1	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1	1
10945	Isopropylbenzene	98-82-8	N.D.	0.5	2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1	1
10945	Toluene	108-88-3	N.D.	0.5	1	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.5	2	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.5	2	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	0.5	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	0.5	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	0.5	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	0.5	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	0.5	1
14249	Chrysene	218-01-9	N.D.	0.1	0.5	1
14249	Fluorene	86-73-7	N.D.	0.1	0.5	1
14249	Naphthalene	91-20-3	N.D.	0.1	0.5	1
14249	Phenanthrene	85-01-8	N.D.	0.1	0.5	1
14249	Pyrene	129-00-0	N.D.	0.1	0.5	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D.	0.0095	0.029	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.090	1.0	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.
This sample was filtered in the lab for dissolved metals.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	D171461AA	05/26/2017 13:58	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D171461AA	05/26/2017 13:58	Anita M Dale	1
14249	PAHs 8270C MINI	SW-846 8270C	1	17144WAC026	05/29/2017 06:08	Holly B Ziegler	1
07807	BNA Water Extraction	SW-846 3510C	1	17144WAC026	05/24/2017 20:30	Christine Gleim	1

*=This limit was used in the evaluation of the final result

Sample Description: S-143SRFT-20170518 Grab Groundwater
PES PHL Annual GWS S-143SRFT

LL Sample # WW 9003670
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/18/2017 08:28 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH143

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	8011 Master Master	SW-846 8011	1	171430015A	05/25/2017 08:36	Heather M Miller	1
07786	EDB Extraction (8011)	SW-846 8011	1	171430015A	05/23/2017 11:45	Olivia Arosemena	1
06035	Lead	SW-846 6020	1	171460605003A	05/30/2017 06:11	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	171460605003	05/28/2017 21:00	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: S-120DSRTF-20170518 Grab Groundwater
PES PHL Annual GWS S-120DSRTF

LL Sample # WW 9003671
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/18/2017 10:09 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH120

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.		0.5	1	1
10945	1,2-Dichloroethane	107-06-2	N.D.		0.5	1	1
10945	Ethylbenzene	100-41-4	N.D.		0.5	1	1
10945	Isopropylbenzene	98-82-8	8		0.5	2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	45		0.5	1	1
10945	Toluene	108-88-3	0.7	J	0.5	1	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.		0.5	2	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.		0.5	2	1
10945	Xylene (Total)	1330-20-7	0.5	J	0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.		0.1	0.5	1
14249	Benzo(a)anthracene	56-55-3	N.D.		0.1	0.5	1
14249	Benzo(a)pyrene	50-32-8	N.D.		0.1	0.5	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.		0.1	0.5	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.		0.1	0.5	1
14249	Chrysene	218-01-9	N.D.		0.1	0.5	1
14249	Fluorene	86-73-7	N.D.		0.1	0.5	1
14249	Naphthalene	91-20-3	N.D.		0.1	0.5	1
14249	Phenanthrene	85-01-8	0.2	J	0.1	0.5	1
14249	Pyrene	129-00-0	N.D.		0.1	0.5	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D.	Q7	0.0099	0.030	1
Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.		0.090	1.0	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.
This sample was filtered in the lab for dissolved metals.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	D171461AA	05/26/2017 14:22	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D171461AA	05/26/2017 14:22	Anita M Dale	1
14249	PAHs 8270C MINI	SW-846 8270C	1	17144WAC026	05/29/2017 06:36	Holly B Ziegler	1
07807	BNA Water Extraction	SW-846 3510C	1	17144WAC026	05/24/2017 20:30	Christine Gleim	1

*=This limit was used in the evaluation of the final result

Sample Description: S-120DSRTF-20170518 Grab Groundwater
PES PHL Annual GWS S-120DSRTF

LL Sample # WW 9003671
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/18/2017 10:09 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH120

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	8011 Master Master	SW-846 8011	1	171450020A	05/29/2017 17:19	Heather M Miller	1
07786	EDB Extraction (8011)	SW-846 8011	1	171450020A	05/26/2017 11:30	Olivia Arosemena	1
06035	Lead	SW-846 6020	1	171460605003A	05/30/2017 06:12	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	171460605003	05/28/2017 21:00	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: S-106DSRTF-20170518 Grab Groundwater
PES PHL Annual GWS S-106DSRTF

LL Sample # WW 9003672
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/18/2017 11:05 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH106

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.5	1	1
10945	1,2-Dichloroethane	107-06-2	N.D.	0.5	1	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1	1
10945	Isopropylbenzene	98-82-8	N.D.	0.5	2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	4	0.5	1	1
10945	Toluene	108-88-3	N.D.	0.5	1	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.5	2	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.5	2	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	0.5	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	0.5	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	0.5	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	0.5	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	0.5	1
14249	Chrysene	218-01-9	N.D.	0.1	0.5	1
14249	Fluorene	86-73-7	N.D.	0.1	0.5	1
14249	Naphthalene	91-20-3	N.D.	0.1	0.5	1
14249	Phenanthrene	85-01-8	N.D.	0.1	0.5	1
14249	Pyrene	129-00-0	N.D.	0.1	0.5	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. Q7	0.0095	0.029	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.090	1.0	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.
This sample was filtered in the lab for dissolved metals.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	D171461AA	05/26/2017 14:46	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D171461AA	05/26/2017 14:46	Anita M Dale	1
14249	PAHs 8270C MINI	SW-846 8270C	1	17144WAC026	05/29/2017 07:04	Holly B Ziegler	1
07807	BNA Water Extraction	SW-846 3510C	1	17144WAC026	05/24/2017 20:30	Christine Gleim	1

*=This limit was used in the evaluation of the final result

Sample Description: S-106DSRTF-20170518 Grab Groundwater
PES PHL Annual GWS S-106DSRTF

LL Sample # WW 9003672
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/18/2017 11:05 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH106

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	8011 Master Master	SW-846 8011	1	171450020A	05/29/2017 17:51	Heather M Miller	1
07786	EDB Extraction (8011)	SW-846 8011	1	171450020A	05/26/2017 11:30	Olivia Arosemena	1
06035	Lead	SW-846 6020	1	171460605003A	05/30/2017 06:18	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	171460605003	05/28/2017 21:00	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: S-116SRTF-20170518 Grab Groundwater
PES PHL Annual GWS S-116SRTF

LL Sample # WW 9003673
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/18/2017 11:51 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH116

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.		0.5	1	1
10945	1,2-Dichloroethane	107-06-2	N.D.		0.5	1	1
10945	Ethylbenzene	100-41-4	N.D.		0.5	1	1
10945	Isopropylbenzene	98-82-8	N.D.		0.5	2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	1	1
10945	Toluene	108-88-3	0.5	J	0.5	1	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.		0.5	2	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.		0.5	2	1
10945	Xylene (Total)	1330-20-7	N.D.		0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.		0.1	0.5	1
14249	Benzo(a)anthracene	56-55-3	N.D.		0.1	0.5	1
14249	Benzo(a)pyrene	50-32-8	N.D.		0.1	0.5	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.		0.1	0.5	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.		0.1	0.5	1
14249	Chrysene	218-01-9	N.D.		0.1	0.5	1
14249	Fluorene	86-73-7	N.D.		0.1	0.5	1
14249	Naphthalene	91-20-3	0.2	J	0.1	0.5	1
14249	Phenanthrene	85-01-8	N.D.		0.1	0.5	1
14249	Pyrene	129-00-0	N.D.		0.1	0.5	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. Q7		0.0097	0.029	1
Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.29	J	0.090	1.0	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.
This sample was filtered in the lab for dissolved metals.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	D171461AA	05/26/2017 15:10	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D171461AA	05/26/2017 15:10	Anita M Dale	1
14249	PAHs 8270C MINI	SW-846 8270C	1	17144WAC026	05/29/2017 07:32	Holly B Ziegler	1
07807	BNA Water Extraction	SW-846 3510C	1	17144WAC026	05/24/2017 20:30	Christine Gleim	1

*=This limit was used in the evaluation of the final result

Sample Description: S-116SRTF-20170518 Grab Groundwater
PES PHL Annual GWS S-116SRTF

LL Sample # WW 9003673
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/18/2017 11:51 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH116

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	8011 Master Master	SW-846 8011	1	171450020A	05/29/2017 18:22	Heather M Miller	1
07786	EDB Extraction (8011)	SW-846 8011	1	171450020A	05/26/2017 11:30	Olivia Arosemena	1
06035	Lead	SW-846 6020	1	171460605003A	05/30/2017 06:19	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	171460605003	05/28/2017 21:00	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: S-113SRTF-20170518 Grab Groundwater
PES PHL Annual GWS S-113SRTF

LL Sample # WW 9003674
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/18/2017 11:25 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH113

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	**ug/l**	
10945	Benzene	71-43-2	94	0.5	1	1
10945	1,2-Dichloroethane	107-06-2	N.D.	0.5	1	1
10945	Ethylbenzene	100-41-4	28	0.5	1	1
10945	Isopropylbenzene	98-82-8	16	0.5	2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	2	0.5	1	1
10945	Toluene	108-88-3	2	0.5	1	1
10945	1,2,4-Trimethylbenzene	95-63-6	5	0.5	2	1
10945	1,3,5-Trimethylbenzene	108-67-8	10	0.5	2	1
10945	Xylene (Total)	1330-20-7	13	0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	0.5	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	0.5	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	0.5	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	0.5	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	0.5	1
14249	Chrysene	218-01-9	N.D.	0.1	0.5	1
14249	Fluorene	86-73-7	N.D.	0.1	0.5	1
14249	Naphthalene	91-20-3	5	0.1	0.5	1
14249	Phenanthrene	85-01-8	N.D.	0.1	0.5	1
14249	Pyrene	129-00-0	N.D.	0.1	0.5	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. Q7	0.0099	0.030	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.37 J	0.090	1.0	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.
This sample was filtered in the lab for dissolved metals.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	D171461AA	05/26/2017 15:34	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D171461AA	05/26/2017 15:34	Anita M Dale	1
14249	PAHs 8270C MINI	SW-846 8270C	1	17144WAC026	05/29/2017 08:00	Holly B Ziegler	1
07807	BNA Water Extraction	SW-846 3510C	1	17144WAC026	05/24/2017 20:30	Christine Gleim	1

*=This limit was used in the evaluation of the final result

Sample Description: S-113SRTF-20170518 Grab Groundwater
PES PHL Annual GWS S-113SRTF

LL Sample # WW 9003674
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/18/2017 11:25 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH113

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	8011 Master Master	SW-846 8011	1	171450020A	05/29/2017 18:37	Heather M Miller	1
07786	EDB Extraction (8011)	SW-846 8011	1	171450020A	05/26/2017 11:30	Olivia Arosemena	1
06035	Lead	SW-846 6020	1	171460605003A	05/30/2017 06:21	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	171460605003	05/28/2017 21:00	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: S-112SRTF-20170518 Grab Groundwater
PES PHL Annual GWS S-112SRTF

LL Sample # WW 9003675
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/18/2017 12:40 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH112

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	**ug/l**	
10945	Benzene	71-43-2	820	3	5	5
10945	1,2-Dichloroethane	107-06-2	N.D.	3	5	5
10945	Ethylbenzene	100-41-4	410	3	5	5
10945	Isopropylbenzene	98-82-8	72	3	10	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	23	3	5	5
10945	Toluene	108-88-3	1,600	5	10	10
10945	1,2,4-Trimethylbenzene	95-63-6	450	3	10	5
10945	1,3,5-Trimethylbenzene	108-67-8	150	3	10	5
10945	Xylene (Total)	1330-20-7	1,600	3	5	5
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	0.2 J	0.1	0.5	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	0.5	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	0.5	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	0.5	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	0.5	1
14249	Chrysene	218-01-9	N.D.	0.1	0.5	1
14249	Fluorene	86-73-7	2	0.1	0.5	1
14249	Naphthalene	91-20-3	46	0.1	0.5	1
14249	Phenanthrene	85-01-8	1	0.1	0.5	1
14249	Pyrene	129-00-0	N.D.	0.1	0.5	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. Q7	0.030	0.030	1
Reporting limits were raised due to interference from the sample matrix.						
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	**ug/l**	
06035	Lead	7439-92-1	3.4	0.090	1.0	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.
This sample was filtered in the lab for dissolved metals.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	D171461AA	05/26/2017 15:59	Anita M Dale	10
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	D171466AA	05/27/2017 01:04	Hu Yang	5

*=This limit was used in the evaluation of the final result

Sample Description: S-112SRTF-20170518 Grab Groundwater
PES PHL Annual GWS S-112SRTF

LL Sample # WW 9003675
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/18/2017 12:40 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH112

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D171461AA	05/26/2017 15:59	Anita M Dale	10
01163	GC/MS VOA Water Prep	SW-846 5030B	2	D171466AA	05/27/2017 01:04	Hu Yang	5
14249	PAHs 8270C MINI	SW-846 8270C	1	17144WAC026	05/29/2017 08:28	Holly B Ziegler	1
07807	BNA Water Extraction	SW-846 3510C	1	17144WAC026	05/24/2017 20:30	Christine Gleim	1
10398	8011 Master Master	SW-846 8011	1	171450020A	05/29/2017 18:53	Heather M Miller	1
07786	EDB Extraction (8011)	SW-846 8011	1	171450020A	05/26/2017 11:30	Olivia Arosemena	1
06035	Lead	SW-846 6020	1	171460605003A	05/30/2017 06:23	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	171460605003	05/28/2017 21:00	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: S-145SRTF-20170518 Grab Groundwater
PES PHL Annual GWS S-145SRTF

LL Sample # WW 9003676
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/18/2017 14:15 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH145

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	80		0.5	1	1
10945	1,2-Dichloroethane	107-06-2	N.D.		0.5	1	1
10945	Ethylbenzene	100-41-4	22		0.5	1	1
10945	Isopropylbenzene	98-82-8	9		0.5	2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	45		0.5	1	1
10945	Toluene	108-88-3	4		0.5	1	1
10945	1,2,4-Trimethylbenzene	95-63-6	68		0.5	2	1
10945	1,3,5-Trimethylbenzene	108-67-8	23		0.5	2	1
10945	Xylene (Total)	1330-20-7	52		0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	0.1	J	0.1	0.5	1
14249	Benzo(a)anthracene	56-55-3	N.D.		0.1	0.5	1
14249	Benzo(a)pyrene	50-32-8	N.D.		0.1	0.5	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.		0.1	0.5	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.		0.1	0.5	1
14249	Chrysene	218-01-9	N.D.		0.1	0.5	1
14249	Fluorene	86-73-7	0.4	J	0.1	0.5	1
14249	Naphthalene	91-20-3	4		0.1	0.5	1
14249	Phenanthrene	85-01-8	0.2	J	0.1	0.5	1
14249	Pyrene	129-00-0	N.D.		0.1	0.5	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. Q7		0.0097	0.029	1
Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.21	J	0.090	1.0	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.
This sample was filtered in the lab for dissolved metals.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	D171461AA	05/26/2017 16:23	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D171461AA	05/26/2017 16:23	Anita M Dale	1
14249	PAHs 8270C MINI	SW-846 8270C	1	17144WAC026	05/29/2017 08:56	Holly B Ziegler	1
07807	BNA Water Extraction	SW-846 3510C	1	17144WAC026	05/24/2017 20:30	Christine Gleim	1

*=This limit was used in the evaluation of the final result

Sample Description: S-145SRTF-20170518 Grab Groundwater
PES PHL Annual GWS S-145SRTF

LL Sample # WW 9003676
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/18/2017 14:15 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH145

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	8011 Master Master	SW-846 8011	1	171450020A	05/29/2017 19:39	Heather M Miller	1
07786	EDB Extraction (8011)	SW-846 8011	1	171450020A	05/26/2017 11:30	Olivia Arosemena	1
06035	Lead	SW-846 6020	1	171460605003A	05/30/2017 06:25	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	171460605003	05/28/2017 21:00	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: S-122SRTF-20170518 Grab Groundwater
PES PHL Annual GWS S-122SRTF

LL Sample # WW 9003677
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/18/2017 15:30 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH122

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	170		0.5	1	1
10945	1,2-Dichloroethane	107-06-2	N.D.		0.5	1	1
10945	Ethylbenzene	100-41-4	34		0.5	1	1
10945	Isopropylbenzene	98-82-8	180		0.5	2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	58		0.5	1	1
10945	Toluene	108-88-3	100		0.5	1	1
10945	1,2,4-Trimethylbenzene	95-63-6	40		0.5	2	1
10945	1,3,5-Trimethylbenzene	108-67-8	27		0.5	2	1
10945	Xylene (Total)	1330-20-7	290		0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	0.8		0.1	0.5	1
14249	Benzo(a)anthracene	56-55-3	0.2	J	0.1	0.5	1
14249	Benzo(a)pyrene	50-32-8	0.1	J	0.1	0.5	1
14249	Benzo(b)fluoranthene	205-99-2	0.1	J	0.1	0.5	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.		0.1	0.5	1
14249	Chrysene	218-01-9	0.2	J	0.1	0.5	1
14249	Fluorene	86-73-7	5		0.1	0.5	1
14249	Naphthalene	91-20-3	9		0.1	0.5	1
14249	Phenanthrene	85-01-8	5		0.1	0.5	1
14249	Pyrene	129-00-0	0.7		0.1	0.5	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. Q7		0.0097	0.029	1
Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	7.6		0.090	1.0	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.
This sample was filtered in the lab for dissolved metals.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	D171464AA	05/27/2017 00:04	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D171464AA	05/27/2017 00:04	Hu Yang	1
14249	PAHs 8270C MINI	SW-846 8270C	1	17144WAC026	05/29/2017 09:24	Holly B Ziegler	1
07807	BNA Water Extraction	SW-846 3510C	1	17144WAC026	05/24/2017 20:30	Christine Gleim	1

*=This limit was used in the evaluation of the final result

Sample Description: S-122SRTF-20170518 Grab Groundwater
PES PHL Annual GWS S-122SRTF

LL Sample # WW 9003677
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/18/2017 15:30 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH122

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	8011 Master Master	SW-846 8011	1	171450020A	05/29/2017 19:55	Heather M Miller	1
07786	EDB Extraction (8011)	SW-846 8011	1	171450020A	05/26/2017 11:30	Olivia Arosemena	1
06035	Lead	SW-846 6020	1	171460605003A	05/30/2017 06:27	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	171460605003	05/28/2017 21:00	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: S-144SRTF-20170518 Grab Groundwater
PES PHL Annual GWS S-144SRTF

LL Sample # WW 9003678
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/18/2017 16:45 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH144

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.		0.5	1	1
10945	1,2-Dichloroethane	107-06-2	N.D.		0.5	1	1
10945	Ethylbenzene	100-41-4	N.D.		0.5	1	1
10945	Isopropylbenzene	98-82-8	N.D.		0.5	2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	69		0.5	1	1
10945	Toluene	108-88-3	N.D.		0.5	1	1
10945	1,2,4-Trimethylbenzene	95-63-6	0.6	J	0.5	2	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.		0.5	2	1
10945	Xylene (Total)	1330-20-7	0.6	J	0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.		0.1	0.5	1
14249	Benzo(a)anthracene	56-55-3	N.D.		0.1	0.5	1
14249	Benzo(a)pyrene	50-32-8	N.D.		0.1	0.5	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.		0.1	0.5	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.		0.1	0.5	1
14249	Chrysene	218-01-9	N.D.		0.1	0.5	1
14249	Fluorene	86-73-7	N.D.		0.1	0.5	1
14249	Naphthalene	91-20-3	N.D.		0.1	0.5	1
14249	Phenanthrene	85-01-8	N.D.		0.1	0.5	1
14249	Pyrene	129-00-0	0.1	J	0.1	0.5	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D.	Q7	0.0097	0.029	1
Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.		0.090	1.0	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.
This sample was filtered in the lab for dissolved metals.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	D171464AA	05/27/2017 00:28	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D171464AA	05/27/2017 00:28	Hu Yang	1
14249	PAHs 8270C MINI	SW-846 8270C	1	17144WAC026	05/29/2017 09:51	Holly B Ziegler	1
07807	BNA Water Extraction	SW-846 3510C	1	17144WAC026	05/24/2017 20:30	Christine Gleim	1

*=This limit was used in the evaluation of the final result

Sample Description: S-144SRTF-20170518 Grab Groundwater
PES PHL Annual GWS S-144SRTF

LL Sample # WW 9003678
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/18/2017 16:45 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH144

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	8011 Master Master	SW-846 8011	1	171450020A	05/29/2017 20:10	Heather M Miller	1
07786	EDB Extraction (8011)	SW-846 8011	1	171450020A	05/26/2017 11:30	Olivia Arosemena	1
06035	Lead	SW-846 6020	1	171460605003A	05/30/2017 06:29	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	171460605003	05/28/2017 21:00	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: S-137SRTF-20170519 Grab Groundwater
PES PHL Annual GWS S-137SRTF

LL Sample # WW 9003679
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/19/2017 08:05 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH137

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.5	1	1
10945	1,2-Dichloroethane	107-06-2	N.D.	0.5	1	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1	1
10945	Isopropylbenzene	98-82-8	N.D.	0.5	2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1	1
10945	Toluene	108-88-3	N.D.	0.5	1	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.5	2	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.5	2	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	0.5	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	0.5	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	0.5	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	0.5	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	0.5	1
14249	Chrysene	218-01-9	N.D.	0.1	0.5	1
14249	Fluorene	86-73-7	N.D.	0.1	0.5	1
14249	Naphthalene	91-20-3	N.D.	0.1	0.5	1
14249	Phenanthrene	85-01-8	N.D.	0.1	0.5	1
14249	Pyrene	129-00-0	0.3 J	0.1	0.5	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. Q7	0.0096	0.029	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.090	1.0	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.
This sample was filtered in the lab for dissolved metals.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	D171464AA	05/27/2017 00:53	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D171464AA	05/27/2017 00:53	Hu Yang	1
14249	PAHs 8270C MINI	SW-846 8270C	1	17144WAC026	05/29/2017 10:19	Holly B Ziegler	1
07807	BNA Water Extraction	SW-846 3510C	1	17144WAC026	05/24/2017 20:30	Christine Gleim	1

*=This limit was used in the evaluation of the final result

Sample Description: S-137SRTF-20170519 Grab Groundwater
PES PHL Annual GWS S-137SRTF

LL Sample # WW 9003679
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/19/2017 08:05 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH137

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	8011 Master Master	SW-846 8011	1	171450020A	05/29/2017 20:26	Heather M Miller	1
07786	EDB Extraction (8011)	SW-846 8011	1	171450020A	05/26/2017 11:30	Olivia Arosemena	1
06035	Lead	SW-846 6020	1	171460605003A	05/30/2017 06:30	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	171460605003	05/28/2017 21:00	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: S-138SRTF-20170519 Grab Groundwater
PES PHL Annual GWS S-138SRTF

LL Sample # WW 9003680
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/19/2017 08:30 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH138

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.5	1	1
10945	1,2-Dichloroethane	107-06-2	N.D.	0.5	1	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1	1
10945	Isopropylbenzene	98-82-8	N.D.	0.5	2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	2	0.5	1	1
10945	Toluene	108-88-3	N.D.	0.5	1	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.5	2	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.5	2	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	0.5	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	0.5	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	0.5	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	0.5	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	0.5	1
14249	Chrysene	218-01-9	N.D.	0.1	0.5	1
14249	Fluorene	86-73-7	N.D.	0.1	0.5	1
14249	Naphthalene	91-20-3	N.D.	0.1	0.5	1
14249	Phenanthrene	85-01-8	N.D.	0.1	0.5	1
14249	Pyrene	129-00-0	N.D.	0.1	0.5	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. Q7	0.0096	0.029	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.090	1.0	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.
This sample was filtered in the lab for dissolved metals.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	D171464AA	05/27/2017 01:17	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D171464AA	05/27/2017 01:17	Hu Yang	1
14249	PAHs 8270C MINI	SW-846 8270C	1	17144WAC026	05/29/2017 10:47	Holly B Ziegler	1
07807	BNA Water Extraction	SW-846 3510C	1	17144WAC026	05/24/2017 20:30	Christine Gleim	1

*=This limit was used in the evaluation of the final result

Sample Description: S-138SRTF-20170519 Grab Groundwater
PES PHL Annual GWS S-138SRTF

LL Sample # WW 9003680
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/19/2017 08:30 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH138

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	8011 Master Master	SW-846 8011	1	171450020A	05/29/2017 20:41	Heather M Miller	1
07786	EDB Extraction (8011)	SW-846 8011	1	171450020A	05/26/2017 11:30	Olivia Arosemena	1
06035	Lead	SW-846 6020	1	171460605003A	05/30/2017 06:32	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	171460605003	05/28/2017 21:00	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: S-74DISRTF-20170519 Grab Groundwater
PES PHL Annual GWS S-74DISRTF

LL Sample # WW 9003681
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/19/2017 08:58 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH74D

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.5	1	1
10945	1,2-Dichloroethane	107-06-2	N.D.	0.5	1	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1	1
10945	Isopropylbenzene	98-82-8	N.D.	0.5	2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	1	0.5	1	1
10945	Toluene	108-88-3	N.D.	0.5	1	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.5	2	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.5	2	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	0.5	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	0.5	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	0.5	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	0.5	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	0.5	1
14249	Chrysene	218-01-9	N.D.	0.1	0.5	1
14249	Fluorene	86-73-7	N.D.	0.1	0.5	1
14249	Naphthalene	91-20-3	N.D.	0.1	0.5	1
14249	Phenanthrene	85-01-8	N.D.	0.1	0.5	1
14249	Pyrene	129-00-0	N.D.	0.1	0.5	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. Q7	0.0097	0.029	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.090	1.0	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.
This sample was filtered in the lab for dissolved metals.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	D171464AA	05/27/2017 01:41	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D171464AA	05/27/2017 01:41	Hu Yang	1
14249	PAHs 8270C MINI	SW-846 8270C	1	17144WAC026	05/29/2017 11:15	Holly B Ziegler	1
07807	BNA Water Extraction	SW-846 3510C	1	17144WAC026	05/24/2017 20:30	Christine Gleim	1

*=This limit was used in the evaluation of the final result

Sample Description: S-74DISRTF-20170519 Grab Groundwater
PES PHL Annual GWS S-74DISRTF

LL Sample # WW 9003681
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/19/2017 08:58 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH74D

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	8011 Master Master	SW-846 8011	1	171450020A	05/29/2017 20:57	Heather M Miller	1
07786	EDB Extraction (8011)	SW-846 8011	1	171450020A	05/26/2017 11:30	Olivia Arosemena	1
06035	Lead	SW-846 6020	1	171460605003A	05/30/2017 06:34	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	171460605003	05/28/2017 21:00	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: S-76DSRTF-20170519 Grab Groundwater
PES PHL Annual GWS S-76DSRTF

LL Sample # WW 9003682
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/19/2017 09:40 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH76D

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.5	1	1
10945	1,2-Dichloroethane	107-06-2	N.D.	0.5	1	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1	1
10945	Isopropylbenzene	98-82-8	N.D.	0.5	2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	1	0.5	1	1
10945	Toluene	108-88-3	N.D.	0.5	1	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.5	2	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.5	2	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	0.5	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	0.5	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	0.5	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	0.5	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	0.5	1
14249	Chrysene	218-01-9	N.D.	0.1	0.5	1
14249	Fluorene	86-73-7	N.D.	0.1	0.5	1
14249	Naphthalene	91-20-3	N.D.	0.1	0.5	1
14249	Phenanthrene	85-01-8	N.D.	0.1	0.5	1
14249	Pyrene	129-00-0	N.D.	0.1	0.5	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. Q7	0.020	0.030	1
Reporting limits were raised due to interference from the sample matrix.						
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.090	1.0	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.
This sample was filtered in the lab for dissolved metals.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	D171464AA	05/27/2017 02:05	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D171464AA	05/27/2017 02:05	Hu Yang	1
14249	PAHs 8270C MINI	SW-846 8270C	1	17144WAC026	05/29/2017 11:43	Holly B Ziegler	1

*=This limit was used in the evaluation of the final result

Sample Description: S-76DSRTF-20170519 Grab Groundwater
PES PHL Annual GWS S-76DSRTF

LL Sample # WW 9003682
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/19/2017 09:40 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH76D

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07807	BNA Water Extraction	SW-846 3510C	1	17144WAC026	05/24/2017 20:30	Christine Gleim	1
10398	8011 Master Master	SW-846 8011	1	171450020A	05/29/2017 21:13	Heather M Miller	1
07786	EDB Extraction (8011)	SW-846 8011	1	171450020A	05/26/2017 11:30	Olivia Arosemena	1
06035	Lead	SW-846 6020	1	171460605003A	05/30/2017 06:39	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	171460605003	05/28/2017 21:00	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: S-74D2SRTF-20170519 Grab Groundwater
PES PHL Annual GWS S-74D2SRTF

LL Sample # WW 9003683
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/19/2017 10:31 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH-74

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.5	1	1
10945	1,2-Dichloroethane	107-06-2	N.D.	0.5	1	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1	1
10945	Isopropylbenzene	98-82-8	N.D.	0.5	2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1	1
10945	Toluene	108-88-3	N.D.	0.5	1	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.5	2	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.5	2	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	0.5	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	0.5	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	0.5	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	0.5	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	0.5	1
14249	Chrysene	218-01-9	N.D.	0.1	0.5	1
14249	Fluorene	86-73-7	N.D.	0.1	0.5	1
14249	Naphthalene	91-20-3	N.D.	0.1	0.5	1
14249	Phenanthrene	85-01-8	N.D.	0.1	0.5	1
14249	Pyrene	129-00-0	N.D.	0.1	0.5	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. Q7	0.0097	0.029	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.090	1.0	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.
This sample was filtered in the lab for dissolved metals.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	D171464AA	05/27/2017 02:29	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D171464AA	05/27/2017 02:29	Hu Yang	1
14249	PAHs 8270C MINI	SW-846 8270C	1	17144WAC026	05/29/2017 12:10	Holly B Ziegler	1
07807	BNA Water Extraction	SW-846 3510C	1	17144WAC026	05/24/2017 20:30	Christine Gleim	1

*=This limit was used in the evaluation of the final result

Sample Description: S-74D2SRTF-20170519 Grab Groundwater
PES PHL Annual GWS S-74D2SRTF

LL Sample # WW 9003683
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/19/2017 10:31 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH-74

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	8011 Master Master	SW-846 8011	1	171450020A	05/29/2017 21:28	Heather M Miller	1
07786	EDB Extraction (8011)	SW-846 8011	1	171450020A	05/26/2017 11:30	Olivia Arosemena	1
06035	Lead	SW-846 6020	1	171460605003A	05/30/2017 06:42	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	171460605003	05/28/2017 21:00	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: S-139SRTF-20170519 Grab Groundwater
PES PHL Annual GWS S-139SRTF

LL Sample # WW 9003684
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/19/2017 09:25 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH139

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.		0.5	1	1
10945	1,2-Dichloroethane	107-06-2	N.D.		0.5	1	1
10945	Ethylbenzene	100-41-4	N.D.		0.5	1	1
10945	Isopropylbenzene	98-82-8	N.D.		0.5	2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	21		0.5	1	1
10945	Toluene	108-88-3	0.9	J	0.5	1	1
10945	1,2,4-Trimethylbenzene	95-63-6	0.8	J	0.5	2	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.		0.5	2	1
10945	Xylene (Total)	1330-20-7	2		0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	0.2	J	0.1	0.5	1
14249	Benzo(a)anthracene	56-55-3	N.D.		0.1	0.5	1
14249	Benzo(a)pyrene	50-32-8	N.D.		0.1	0.5	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.		0.1	0.5	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.		0.1	0.5	1
14249	Chrysene	218-01-9	N.D.		0.1	0.5	1
14249	Fluorene	86-73-7	N.D.		0.1	0.5	1
14249	Naphthalene	91-20-3	N.D.		0.1	0.5	1
14249	Phenanthrene	85-01-8	1		0.1	0.5	1
14249	Pyrene	129-00-0	0.3	J	0.1	0.5	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. Q7		0.010	0.030	1
Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.		0.090	1.0	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.
This sample was filtered in the lab for dissolved metals.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	D171464AA	05/27/2017 02:53	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D171464AA	05/27/2017 02:53	Hu Yang	1
14249	PAHs 8270C MINI	SW-846 8270C	1	17144WAC026	05/29/2017 12:38	Holly B Ziegler	1
07807	BNA Water Extraction	SW-846 3510C	1	17144WAC026	05/24/2017 20:30	Christine Gleim	1

*=This limit was used in the evaluation of the final result

Sample Description: S-139SRTF-20170519 Grab Groundwater
PES PHL Annual GWS S-139SRTF

LL Sample # WW 9003684
LL Group # 1803720
Account # 16657

Project Name: PES PHL Annual GWS

Collected: 05/19/2017 09:25 by JC

Submitted: 05/19/2017 16:45
Reported: 06/02/2017 16:12

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

PH139

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	8011 Master Master	SW-846 8011	1	171450020A	05/29/2017 21:44	Heather M Miller	1
07786	EDB Extraction (8011)	SW-846 8011	1	171450020A	05/26/2017 11:30	Olivia Arosemena	1
06035	Lead	SW-846 6020	1	171460605003A	05/30/2017 06:44	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	171460605003	05/28/2017 21:00	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 06/02/2017 16:12

Group Number: 1803720

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
Batch number: D171461AA	Sample number(s): 9003659-9003676		
Benzene	N.D.	0.5	1
1,2-Dichloroethane	N.D.	0.5	1
Ethylbenzene	N.D.	0.5	1
Isopropylbenzene	N.D.	0.5	2
Methyl Tertiary Butyl Ether	N.D.	0.5	1
Toluene	N.D.	0.5	1
1,2,4-Trimethylbenzene	N.D.	0.5	2
1,3,5-Trimethylbenzene	N.D.	0.5	2
Xylene (Total)	N.D.	0.5	1
Batch number: D171464AA	Sample number(s): 9003677-9003684		
Benzene	N.D.	0.5	1
1,2-Dichloroethane	N.D.	0.5	1
Ethylbenzene	N.D.	0.5	1
Isopropylbenzene	N.D.	0.5	2
Methyl Tertiary Butyl Ether	N.D.	0.5	1
Toluene	N.D.	0.5	1
1,2,4-Trimethylbenzene	N.D.	0.5	2
1,3,5-Trimethylbenzene	N.D.	0.5	2
Xylene (Total)	N.D.	0.5	1
Batch number: D171466AA	Sample number(s): 9003675		
Benzene	N.D.	0.5	1
1,2-Dichloroethane	N.D.	0.5	1
Ethylbenzene	N.D.	0.5	1
Isopropylbenzene	N.D.	0.5	2
Methyl Tertiary Butyl Ether	N.D.	0.5	1
1,2,4-Trimethylbenzene	N.D.	0.5	2
1,3,5-Trimethylbenzene	N.D.	0.5	2
Xylene (Total)	N.D.	0.5	1
Batch number: 17142WAA026	Sample number(s): 9003659-9003669		
Anthracene	N.D.	0.1	0.5
Benzo(a)anthracene	N.D.	0.1	0.5
Benzo(a)pyrene	N.D.	0.1	0.5
Benzo(b)fluoranthene	N.D.	0.1	0.5
Benzo(g,h,i)perylene	N.D.	0.1	0.5
Chrysene	N.D.	0.1	0.5
Fluorene	N.D.	0.1	0.5
Naphthalene	N.D.	0.1	0.5
Phenanthrene	N.D.	0.1	0.5
Pyrene	N.D.	0.1	0.5

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 06/02/2017 16:12

Group Number: 1803720

Method Blank (continued)

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
Batch number: 17144WAC026	Sample number(s): 9003670-9003684		
Anthracene	N.D.	0.1	0.5
Benzo(a)anthracene	N.D.	0.1	0.5
Benzo(a)pyrene	N.D.	0.1	0.5
Benzo(b)fluoranthene	N.D.	0.1	0.5
Benzo(g,h,i)perylene	N.D.	0.1	0.5
Chrysene	N.D.	0.1	0.5
Fluorene	N.D.	0.1	0.5
Naphthalene	N.D.	0.1	0.5
Phenanthrene	N.D.	0.1	0.5
Pyrene	N.D.	0.1	0.5
Batch number: 171430015A	Sample number(s): 9003659-9003670		
Ethylene dibromide	N.D.	0.010	0.030
Batch number: 171450020A	Sample number(s): 9003671-9003684		
Ethylene dibromide	N.D.	0.010	0.030
Batch number: 171450605003A	Sample number(s): 9003659-9003668		
Lead	N.D.	0.090	1.0
Batch number: 171460605003A	Sample number(s): 9003669-9003684		
Lead	N.D.	0.090	1.0

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: D171461AA	Sample number(s): 9003659-9003676								
Benzene	20	21.51	20	20.57	108	103	78-120	4	30
1,2-Dichloroethane	20	19.38	20	18.49	97	92	66-128	5	30
Ethylbenzene	20	20.9	20	19.39	104	97	78-120	7	30
Isopropylbenzene	20	21.38	20	19.81	107	99	80-120	8	30
Methyl Tertiary Butyl Ether	20	22.11	20	20.86	111	104	75-120	6	30
Toluene	20	21.13	20	19.53	106	98	80-120	8	30
1,2,4-Trimethylbenzene	20	20.47	20	19.11	102	96	75-120	7	30
1,3,5-Trimethylbenzene	20	20.63	20	19	103	95	75-120	8	30
Xylene (Total)	60	64.27	60	60.57	107	101	80-120	6	30
Batch number: D171464AA	Sample number(s): 9003677-9003684								
Benzene	20	19.92			100		78-120		
1,2-Dichloroethane	20	17.98			90		66-128		
Ethylbenzene	20	19.14			96		78-120		
Isopropylbenzene	20	19.74			99		80-120		
Methyl Tertiary Butyl Ether	20	21.4			107		75-120		
Toluene	20	19.33			97		80-120		

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 06/02/2017 16:12

Group Number: 1803720

LCS/LCSD (continued)

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	ug/l	ug/l	ug/l	ug/l					
1,2,4-Trimethylbenzene	20	18.97			95		75-120		
1,3,5-Trimethylbenzene	20	18.96			95		75-120		
Xylene (Total)	60	59.32			99		80-120		
Batch number: D171466AA	Sample number(s): 9003675								
Benzene	20	20.73			104		78-120		
1,2-Dichloroethane	20	18.44			92		66-128		
Ethylbenzene	20	19.8			99		78-120		
Isopropylbenzene	20	20.48			102		80-120		
Methyl Tertiary Butyl Ether	20	20.8			104		75-120		
1,2,4-Trimethylbenzene	20	20.1			101		75-120		
1,3,5-Trimethylbenzene	20	19.99			100		75-120		
Xylene (Total)	60	61.57			103		80-120		
	ug/l	ug/l	ug/l	ug/l					
Batch number: 17142WAA026	Sample number(s): 9003659-9003669								
Anthracene	50	39.94	50	42.99	80	86	72-120	7	30
Benzo(a)anthracene	50	42.71	50	45.65	85	91	74-124	7	30
Benzo(a)pyrene	50	38.32	50	41.55	77	83	71-119	8	30
Benzo(b)fluoranthene	50	39.77	50	43.71	80	87	72-124	9	30
Benzo(g,h,i)perylene	50	41.97	50	46.78	84	94	61-124	11	30
Chrysene	50	41.94	50	45.42	84	91	75-129	8	30
Fluorene	50	40.24	50	43.91	80	88	67-120	9	30
Naphthalene	50	34.46	50	37.3	69	75	54-109	8	30
Phenanthrene	50	39.13	50	42.77	78	86	72-117	9	30
Pyrene	50	38.87	50	42.24	78	84	69-119	8	30
Batch number: 17144WAC026	Sample number(s): 9003670-9003684								
Anthracene	50	44.77	50	46.3	90	93	72-120	3	30
Benzo(a)anthracene	50	46.73	50	49.95	93	100	74-124	7	30
Benzo(a)pyrene	50	40.81	50	44.92	82	90	71-119	10	30
Benzo(b)fluoranthene	50	41.91	50	46.6	84	93	72-124	11	30
Benzo(g,h,i)perylene	50	33.97	50	37.86	68	76	61-124	11	30
Chrysene	50	47.4	50	49.5	95	99	75-129	4	30
Fluorene	50	44.88	50	45.49	90	91	67-120	1	30
Naphthalene	50	40.85	50	41.24	82	82	54-109	1	30
Phenanthrene	50	44.17	50	45.55	88	91	72-117	3	30
Pyrene	50	44.03	50	45.64	88	91	69-119	4	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 171430015A	Sample number(s): 9003659-9003670								
Ethylene dibromide	0.128	0.158	0.128	0.153	123	119	60-140	3	20
Batch number: 171450020A	Sample number(s): 9003671-9003684								
Ethylene dibromide	0.128	0.107	0.128	0.136	83	106	60-140	24*	20
	ug/l	ug/l	ug/l	ug/l					
Batch number: 171450605003A	Sample number(s): 9003659-9003668								

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 06/02/2017 16:12

Group Number: 1803720

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Lead	15	16.81			112		80-120		
Batch number: 171460605003A	Sample number(s): 9003669-9003684								
Lead	15	15.61			104		80-120		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: D171464AA	Sample number(s): 9003677-9003684 UNSPK: P007486									
Benzene	N.D.	20	20.83	20	21.8	104	109	78-120	5	30
1,2-Dichloroethane	N.D.	20	18.46	20	19.09	92	95	66-128	3	30
Ethylbenzene	N.D.	20	20.06	20	20.71	100	104	78-120	3	30
Isopropylbenzene	N.D.	20	20.63	20	21.26	103	106	80-120	3	30
Methyl Tertiary Butyl Ether	N.D.	20	21.1	20	21.77	106	109	75-120	3	30
Toluene	N.D.	20	20.07	20	20.88	100	104	80-120	4	30
1,2,4-Trimethylbenzene	N.D.	20	19.79	20	20.12	99	101	75-120	2	30
1,3,5-Trimethylbenzene	N.D.	20	19.47	20	20.32	97	102	75-120	4	30
Xylene (Total)	N.D.	60	61.79	60	63.78	103	106	80-120	3	30
Batch number: D171466AA	Sample number(s): 9003675 UNSPK: P007601									
Benzene	N.D.	20	20.43	20	20.42	102	102	78-120	0	30
1,2-Dichloroethane	N.D.	20	17.94	20	17.71	90	89	66-128	1	30
Ethylbenzene	N.D.	20	19.11	20	19.45	96	97	78-120	2	30
Isopropylbenzene	N.D.	20	20.34	20	20.33	102	102	80-120	0	30
Methyl Tertiary Butyl Ether	N.D.	20	19.77	20	20.21	99	101	75-120	2	30
1,2,4-Trimethylbenzene	N.D.	20	18.98	20	19.36	95	97	75-120	2	30
1,3,5-Trimethylbenzene	N.D.	20	19.17	20	19.32	96	97	75-120	1	30
Xylene (Total)	N.D.	60	59.64	60	60.7	99	101	80-120	2	30
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 171430015A	Sample number(s): 9003659-9003670 UNSPK: P003536									
Ethylene dibromide	N.D.	0.123	0.145			118		60-140		
Batch number: 171450020A	Sample number(s): 9003671-9003684 UNSPK: 9003671									
Ethylene dibromide	N.D.	0.123	0.165			134		60-140		
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 171450605003A	Sample number(s): 9003659-9003668 UNSPK: 9003661									
Lead	0.666	15	15.68	15	15.51	100	99	75-125	1	20
Batch number: 171460605003A	Sample number(s): 9003669-9003684 UNSPK: 9003669									

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 06/02/2017 16:12

Group Number: 1803720

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Lead	0.240	15	16.5	15	16.01	108	105	75-125	3	20

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc ug/l	DUP Conc ug/l	DUP RPD	DUP RPD Max
Batch number: 171430015A	Sample number(s): 9003659-9003670	BKG: P003542		
Ethylene dibromide	N.D.	N.D.	0 (1)	30
Batch number: 171450020A	Sample number(s): 9003671-9003684	BKG: 9003672		
Ethylene dibromide	N.D.	N.D.	0 (1)	30
	ug/l	ug/l		
Batch number: 171450605003A	Sample number(s): 9003659-9003668	BKG: 9003661		
Lead	0.666	0.599	11 (1)	20
Batch number: 171460605003A	Sample number(s): 9003669-9003684	BKG: 9003669		
Lead	0.240	0.226	6 (1)	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: VOCs- 5ml Water by 8260B UST
Batch number: D171461AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9003659	99	98	96	96
9003660	96	94	97	100
9003661	93	92	97	101
9003662	95	94	97	100
9003663	96	96	98	99
9003664	98	96	97	98
9003665	96	94	96	97
9003666	98	97	96	97
9003667	97	97	97	99
9003668	96	95	98	100
9003669	96	94	96	101
9003670	98	95	97	97

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Group Number: 1803720
Reported: 06/02/2017 16:12

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: VOCs- 5ml Water by 8260B UST
Batch number: D171461AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9003671	95	94	97	105
9003672	94	97	97	99
9003673	94	94	98	100
9003674	94	95	98	101
9003676	94	94	99	106
Blank	98	94	97	97
LCS	96	97	99	101
LCSD	96	98	98	101
Limits:	80-116	77-113	80-113	78-113

Analysis Name: VOCs- 5ml Water by 8260B UST
Batch number: D171464AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9003677	95	95	97	108
9003678	99	95	97	101
9003679	98	94	97	101
9003680	98	95	97	101
9003681	98	94	98	102
9003682	96	94	98	104
9003683	96	95	97	103
9003684	96	92	98	105
Blank	96	95	96	98
LCS	96	100	98	103
MS	97	100	97	102
MSD	96	97	96	101
Limits:	80-116	77-113	80-113	78-113

Analysis Name: VOCs- 5ml Water by 8260B UST
Batch number: D171466AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9003675	99	95	97	107
Blank	97	96	96	98
LCS	96	99	97	102
MS	97	99	98	102
MSD	96	98	97	102
Limits:	80-116	77-113	80-113	78-113

Analysis Name: PAHs 8270C MINI
Batch number: 17142WAA026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
9003659	65	66	65
9003660	78	70	67

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 06/02/2017 16:12

Group Number: 1803720

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PAHs 8270C MINI
Batch number: 17142WAA026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
9003661	54	58	56
9003662	42	54	52
9003663	67	71	59
9003664	51	55	64
9003665	61	63	52
9003666	71	72	59
9003667	47	51	54
9003668	62	62	52
9003669	55	55	41
Blank	49	52	69
LCS	69	69	68
LCSD	76	77	72
Limits:	29-119	41-112	38-125

Analysis Name: PAHs 8270C MINI
Batch number: 17144WAC026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
9003670	61	64	64
9003671	66	68	62
9003672	62	61	70
9003673	69	68	72
9003674	61	57	55
9003675	43	45	54
9003676	69	64	55
9003677	66	62	55
9003678	76	73	54
9003679	65	65	43
9003680	72	70	54
9003681	73	70	55
9003682	70	66	58
9003683	65	64	57
9003684	66	62	42
Blank	77	74	69
LCS	82	82	64
LCSD	87	82	74
Limits:	29-119	41-112	38-125

Analysis Name: 8011 Master Master
Batch number: 171430015A

	1,1,2,2-Tetrachloroethane
9003659	71
9003660	72
9003661	117

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Group Number: 1803720
Reported: 06/02/2017 16:12

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8011 Master Master
Batch number: 171430015A

	1,1,2,2-Tetrachloroethane
9003662	116
9003663	95
9003664	94
9003665	92
9003666	87
9003667	102
9003668	103
9003669	84
9003670	98
Blank	112
DUP	96
LCS	118
LCSD	113
MS	86
Limits:	46-136

Analysis Name: 8011 Master Master
Batch number: 171450020A

	1,1,2,2-Tetrachloroethane
9003671	60
9003672	61
9003673	54
9003674	52
9003675	68
9003676	54
9003677	64
9003678	58
9003679	58
9003680	66
9003681	61
9003682	96
9003683	55
9003684	54
Blank	85
DUP	65
LCS	60
LCSD	83
MS	99
Limits:	46-136

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Environmental Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

③ A < 5/22/17

Acct. # ~~11259~~ 16657 For Eurofins Lancaster Laboratories Environmental use only Group # 1803720 Sample # 9003659-84

Instructions on reverse side correspond with circled numbers.

365584

① Client Information

Client: Stantec	Acct. #: Evergreen
Project Name/#: PHL PES Refinery Annual GWS	PWSID #:
Project Manager: Andy Bradley	P.O. #:
Sampler: J. Craft / C. Correll	Quote #:

Name of state where samples were collected: PA

④ Matrix

Sediment ☐ Soil ☐ | Water ☒ Ground ☐ Potable ☐ | Surface ☐ NPDES ☐ | Other: ☐

⑤ Analysis Requested

Preservation Codes: H | O | O | O | H

② Sample Identification	Collected Date	Collected Time	③ Grab	③ Composite	Total # of Containers	VOC's EPA 8260	SVOC's EPA 8270	Lead Dissolved Lab Filter	Naphthalene EPA 8270	EDB-8011	⑥ Remarks
S-38-20170517	5-17-17	0901	X		8	✓	X	X	X	X	VOC 8260: Benzene, Cumene, Dichloroethane, 1,2- Ethylbenzene Ethylene Dibromide MTBE, Toluene, Trimethyl benzene 1,2,4- Trimethyl benzene 1,3,5 Xylenes
RW-701-20170517		0938	X		8	X	X	X	X	X	SVOC: Anthracene,
S-38A-20170517		1017	X		8	X	X	X	X	X	Benzo(a)anthracene
S-223-20170517		1104	X		8	X	X	X	X	X	Benzo(a)Pyrene
S-222-20170517		1145	X		8	X	X	X	X	X	Benzo(b)fluoranthene
S-380-20170517		1238	X		8	X	X	X	X	X	Benzo(g,h,i)perylene
RW-108-20170517		1025	X		8	X	X	X	X	X	Chrysene, fluorene
S-249-20170517		1155	X		8	X	X	X	X	X	Naphthalene, Phenanthrene
S-354-20170517		1325	X		8	X	X	X	X	X	Pyrene
S-351-20170517	↓	1420	X		8	X	X	X	X	X	✱ See Attached list ✱

For Lab Use Only

FSC:

SCR#:

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 O=Other

⑦ Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Date results are needed: _____

E-mail address: ~~andy.b~~ andrew.bradley@Stantec.com

⑧ Data Package Options (circle if required)

Type I (Validation/non-CLP) Type VI (Raw Data Only)

Type III (Reduced non-CLP) TX TRRP-13

NYSDEC Category A or B MA MCP CT RCP

⑨

Relinquished by	Date	Time	Received by	Date	Time
[signature]	5-19-17	1130	[signature]	5-19-17	1130
[signature]	5/19/17	1641			
			[signature]	5-19-17	1645

EDD Required? Yes No

If yes, format: EQUIS

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____

Temperature upon receipt 10.1 °C

Environmental Analysis Request/Chain of Custody

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Acct. # ~~11209~~ 16657 (3) For Eurofins Lancaster Laboratories Environmental use only
Group # 1803120 Sample # 400361659-84
Instructions on reverse side correspond with circled numbers.

365585

Ac 5/22/17

(1) Client Information

Client: Stantec	Acct. #: Evergreen
Project Name/#: PHL PES Refinery Annual GWS	PWSID #:
Project Manager: Andy Bradley	P.O. #:
Sampler: J. Craft / C. Correll	Quote #:

Name of state where samples were collected: PA

(4) Matrix

Sediment ☐ Soil ☐ | Potable ☐ Ground ☑ Water ☐ | Surface ☐ NPDES ☐ | Other: ☐

(5) Analysis Requested

Preservation Codes: # O O O H

(2) Sample Identification	Collected Date	Collected Time	(3) Grab	Composite	Total # of Containers	VOC's EPA 8260	SVOC's EPA 8270	Lead Dissolved Lab Filter	Naphthalene 8270	EDB - 8011	(6) Remarks
S-142SRTF-20170518	5-18-17	0802	X		8	X	X	X	X	X	SVOC: Anthracene
S-143SRTF-20170518		0828	X		8	X	X	X	X	X	Benzo(a) anthracene
S-120DSRTF-20170518		1009	X		8	X	X	X	X	X	Benzo(a) pyrene
S-106DSRTF-20170518		1105	X		8	X	X	X	X	X	Benzo(b) fluoranthene
S-116SRTF-20170518		1151	X		8	X	X	X	X	X	Benzo(g,h,i) perylene
S-113 SRTF-20170518 SRTF		1125	X		8	X	X	X	X	X	Chrysene, Fluorene
S-112 SRTF-20170518 SRTF		1240	X		8	X	X	X	X	X	Naphthalene, Phenanthrene
S-145 SRTF-20170518 SRTF		1415	X		8	X	X	X	X	X	Pyrene
S-122 SRTF-20170518 SRTF		1530	X		8	X	X	X	X	X	* See Attached list *
S-144 SRTF-20170518 SRTF		1645	X		8	X	X	X	X	X	

For Lab Use Only
FSC:
SCR#:

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 O=Other

(6) Remarks
VOC 8260: Benzene, Carene Dichloroethane, 1,2- Ethylbenzene Ethylene Dibromide, MTBE, Toluene, Trimethylbenzene 1,2,4- Trimethylbenzene 1,3,5 Xylenes

(7) Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Date results are needed:

E-mail address: andrew.bradley@stantec.com

(8) Data Package Options (circle if required)

Type I (Validation/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
Craig Lauer	5-19-17	1130		5-19-17	1130
	5-19-17	1645			
				5-19-17	1645

(9)

EDD Required? (Yes) No
If yes, format: EQUIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:
UPS FedEx Other

Temperature upon receipt 1.0-1.4 °C

Environmental Analysis Request/Chain of Custody

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③ Ac 5/22/17 16657

For Eurofins Lancaster Laboratories Environmental use only

Acct. # ~~11289~~ Group # 1803720 Sample # 9003659-84

COC # 525082

Client Information

Client: Stantec	Acct. #: Evergreen
Project Name/#: PES PHL Refinery Annual GWS	PWSID #:
Project Manager: Andy Bradley	P.O. #:
Sampler: J. Crart / C. Cornell	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: ____

Analysis Requested — Preservation Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Water	Other	Total # of Containers	VOCs 8260 (H)	SVOCs 8270 (O)	Lead Dissolved lab filter (O)	Naphthalene 8270 (O)	EDB 8011 (H)						Remarks
S-137SRTF-20170519	5-19-17	0805	X			X		8	X	X	X	X	X						
S-138SRTF-20170519	↓	0830	X			X			X	X	X	X	X						
S-74D1SRTF-20170519	↓	0858	X			X			X	X	X	X	X						
S-76DSRTF-20170519	↓	0940	X			X			X	X	X	X	X						
S-74D2SRTF-20170519	↓	1031	X			X			X	X	X	X	X						
S-139SRTF-20170519	↓	0925	X			X			X	X	X	X	X						

For Lab Use Only
FSC: ____
SCR#: ____

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 O=Other

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Date results are needed: ____

E-mail address: andrew.bradley@stantec.com

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
[signature]	5-19-17	1130	[signature]	5-19-17	1130
[signature]	5-19-17	1645			
			[signature]	5-19-17	1695

EDD Required? Yes No
If yes, format: EQUIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:
UPS ____ FedEx ____ Other ____

Temperature upon receipt 10.14 °C

1803720

Table 1
Evergreen Petroleum Short List of Constituents of Concern

VOCs by EPA Method 8260	CAS No.
Benzene	71-43-2
Cumene	98-82-8
Dichloroethane, 1,2-	107-06-2
Ethylbenzene	100-41-4
Ethylene Dibromide*	106-93-4
Methyl tert butyl ether	1634-04-4
Toluene	108-88-3
Trimethylbenzene, 1,2,4-	95-63-6
Trimethylbenzene, 1,3,5-	108-67-8
Xylenes	1330-20-7

SVOCs by EPA Method 8270	CAS No.
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Chrysene	218-01-9
Fluorene	86-73-7
Naphthalene**	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Metals by Method 6010/6020	CAS No.
Lead***	7439-92-1

*Ethylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

**Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

***Metals analysis should be total in soil and dissolved in groundwater.

This list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline and No. 1, 2, 4, 5, 6 Fuel Oils).

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Sample Administration Receipt Documentation Log

Doc Log ID: 184239

Group Number(s): 1803720

Client: Stantec

Delivery and Receipt Information

Delivery Method:	ELLE Courier	Arrival Timestamp:	05/19/2017 16:45
Number of Packages:	5	Number of Projects:	1
State/Province of Origin:	PA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	VOA Vial Headspace ≥ 6mm:	No
Paperwork Enclosed:	Yes	Total Trip Blank Qty:	0
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Cory Jeremiah (10469) at 19:52 on 05/19/2017

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT146	1.1	DT	Wet	Y	Bagged	N
2	DT146	1.4	DT	Wet	Y	Bagged	N
3	DT146	1.0	DT	Wet	Y	Bagged	N
4	DT146	1.3	DT	Wet	Y	Bagged	N
5	DT146	1.2	DT	Wet	Y	Bagged	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T 717-656-2300
F 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mg**	milligram(s)
C	degrees Celsius	**mL**	milliliter(s)
cfu	colony forming units	**MPN**	Most Probable Number
CP Units	cobalt-chloroplatinate units	**N.D.**	none detected
F	degrees Fahrenheit	**ng**	nanogram(s)
g	gram(s)	**NTU**	nephelometric turbidity units
IU	International Units	**pg/L**	picogram/liter
kg	kilogram(s)	**RL**	Reporting Limit
L	liter(s)	**TNTC**	Too Numerous To Count
lb.	pound(s)	**µg**	microgram(s)
m3	cubic meter(s)	**µL**	microliter(s)
meq	milliequivalents	**umhos/cm**	micromhos/cm

< less than

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Laboratory Data Qualifiers:

C - Result confirmed by reanalysis
E - Concentration exceeds the calibration range
J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.
U - Analyte was not detected at the value indicated
V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference…
W - The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

Additional Data Qualifiers

Qualifier	Definition
B	Detection in the Blank
Q0	LCS/LCSD Low
Q1	LCS/LCSD High
Q4	MS/MSD Out of Range
Q7	LCS/LCSD RPD
Q8	DUP RPD
Q9	MS/MSD RPD

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2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv



ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

Report Date: February 07, 2018 22:19

Project: Penrose System Perimeter Sampling

Account #: 16657
Group Number: 1901865
PO Number: 213402429
State of Sample Origin: PA

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our current scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ . To request copies of prior scopes of accreditation, contact your project manager.

Electronic Copy To Evergreen c/o Stantec Attn: Andrew Bradley

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252



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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
S-239_20180125 Grab Groundwater	01/25/2018 08:40	9427607
S-243_20180125 Grab Groundwater	01/25/2018 09:10	9427608
S-224_20180125 Grab Groundwater	01/25/2018 10:00	9427609
S-223_20180125 Grab Groundwater	01/25/2018 10:45	9427610

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Sample Description: **S-239_20180125 Grab Groundwater**
Penrose System Perimeter Sampling

Project Name: **Penrose System Perimeter Sampling**

Submittal Date/Time: 01/26/2018 17:40
Collection Date/Time: 01/25/2018 08:40

Evergreen c/o Stantec
ELLE Sample #: WW 9427607
ELLE Group #: 1901865
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	UST BTEX in Water 8260	SW-846 8260B	1	Z180372AA	02/07/2018 02:33	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z180372AA	02/07/2018 02:33	Hu Yang	1

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Sample Description: **S-243_20180125 Grab Groundwater**
Penrose System Perimeter Sampling

Project Name: **Penrose System Perimeter Sampling**

Submittal Date/Time: 01/26/2018 17:40
Collection Date/Time: 01/25/2018 09:10

Evergreen c/o Stantec
ELLE Sample #: WW 9427608
ELLE Group #: 1901865
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	
10945	Benzene	71-43-2	0.6	J	0.5	1
10945	Ethylbenzene	100-41-4	10		0.5	1
10945	Toluene	108-88-3	1		0.5	1
10945	Xylene (Total)	1330-20-7	14		0.5	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	UST BTEX in Water 8260	SW-846 8260B	1	Z180372AA	02/07/2018 02:58	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z180372AA	02/07/2018 02:58	Hu Yang	1

Sample Description: **S-224_20180125 Grab Groundwater**
Penrose System Perimeter Sampling

Project Name: **Penrose System Perimeter Sampling**

Submittal Date/Time: 01/26/2018 17:40
Collection Date/Time: 01/25/2018 10:00

Evergreen c/o Stantec
ELLE Sample #: WW 9427609
ELLE Group #: 1901865
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	160	3	5
10945	Ethylbenzene	100-41-4	170	3	5
10945	Toluene	108-88-3	43	3	5
10945	Xylene (Total)	1330-20-7	260	3	5

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	UST BTEX in Water 8260	SW-846 8260B	1	Z180372AA	02/07/2018 04:11	Hu Yang	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z180372AA	02/07/2018 04:11	Hu Yang	5

Sample Description: **S-223_20180125 Grab Groundwater**
Penrose System Perimeter Sampling

Project Name: **Penrose System Perimeter Sampling**

Submittal Date/Time: 01/26/2018 17:40
Collection Date/Time: 01/25/2018 10:45

Evergreen c/o Stantec
ELLE Sample #: WW 9427610
ELLE Group #: 1901865
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	1,700	25	50
10945	Ethylbenzene	100-41-4	400	3	5
10945	Toluene	108-88-3	190	3	5
10945	Xylene (Total)	1330-20-7	1,100	3	5

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.
Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	UST BTEX in Water 8260	SW-846 8260B	1	Z180372AA	02/07/2018 04:35	Hu Yang	5
10945	UST BTEX in Water 8260	SW-846 8260B	1	D180382AA	02/07/2018 21:14	Hu Yang	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z180372AA	02/07/2018 04:35	Hu Yang	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	D180382AA	02/07/2018 21:14	Hu Yang	50

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Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 02/07/2018 22:19

Group Number: 1901865

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	ug/l	ug/l
Batch number: D180382AA	Sample number(s): 9427610	
Benzene	N.D.	0.5
Batch number: Z180372AA	Sample number(s): 9427607-9427610	
Benzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Toluene	N.D.	0.5
Xylene (Total)	N.D.	0.5

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: D180382AA	Sample number(s): 9427610								
Benzene	20	18.06			90		78-120		
Batch number: Z180372AA	Sample number(s): 9427607-9427610								
Benzene	20	17.99	20	18.58	90	93	78-120	3	30
Ethylbenzene	20	18.51	20	18.58	93	93	78-120	0	30
Toluene	20	19.23	20	19.41	96	97	80-120	1	30
Xylene (Total)	60	58.04	60	58.47	97	97	80-120	1	30

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: D180382AA	Sample number(s): 9427610 UNSPK: P430942									
Benzene	N.D.	20	20.31	20	19.64	102	98	78-120	3	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

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Quality Control Summary

Client Name: Evergreen c/o Stantec
Group Number: 1901865
Reported: 02/07/2018 22:19

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report. For dual column analyses, the surrogate (at least one surrogate for multi-surrogate tests) must be within the acceptance limits on at least one of the two columns.

Analysis Name: UST BTEX in Water 8260
Batch number: Z180372AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9427607	101	101	101	91
9427608	100	98	99	95
9427609	98	98	100	94
9427610	98	97	100	94
Blank	99	97	100	90
LCS	96	96	102	94
LCSD	96	101	101	94
Limits:	80-120	80-120	80-120	80-120

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Environmental Analysis Request/Chain of Custody

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(3).Ac 1/30/18 16657 For Eurofins Lancaster Laboratories Environmental use only

Acct. # ~~42093~~ Group # 1901865 Sample # 9427607-10

COC # 540192

Client Information

Client: Stantec

Acct. #: Evergreen

Project Name/#: 213402429 (PHL Refinery) Penrose System Perimeter Sampling

PWSID #:

Project Manager: Andy Bradley

P.O. #:

Sampler: Dane Hopkins

Quote #:

State where samples were collected: PA

For Compliance: Yes ☐ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: ____

Analysis Requested

Preservation Codes

For Lab Use Only

FSC:

SCR#: 219005

Preservation Codes

H=HCl T=Thiosulfate

N=HNO_3 B=NaOH

S=H_2SO_4 O=Other

Remarks

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	BTEX 8260
S-239_20180125	1/25/18	0840	X		3	X
S-243_20180125	↓	0910	X		3	X
S-224_20180125	↓	1000	X		3	X
S-223_20180125	↓	1045	X		3	X

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Date results are needed: _____

E-mail address: Andrew.Bradley@stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)

Type III (Reduced non-CLP) NJ DKQP TX TRRP-13

NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
Bottle Storage	1/25/18	0500	[signature]	1/25/18	0500
[signature]	1/26/18	1300	[signature]	1/26/18	1300
[signature]	1/26/18	1740			
			[signature]	1.26.18	1790

EDD Required? (Yes) No

If yes, format: EQUIS

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other ✓

Temperature upon receipt 0.8 °C

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Sample Administration Receipt Documentation Log

Doc Log ID: 206996

Group Number(s): 1901865

Client: Stantec

Delivery and Receipt Information

Delivery Method:	ELLE Courier	Arrival Timestamp:	01/26/2018 17:40
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	PA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Nicole Reiff (25684) at 17:52 on 01/26/2018

Samples Chilled Details

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT146	0.8	DT	Wet	Y	Bagged	N

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mg**	milligram(s)
C	degrees Celsius	**mL**	milliliter(s)
cfu	colony forming units	**MPN**	Most Probable Number
CP Units	cobalt-chloroplatinate units	**N.D.**	non-detect
F	degrees Fahrenheit	**ng**	nanogram(s)
g	gram(s)	**NTU**	nephelometric turbidity units
IU	International Units	**pg/L**	picogram/liter
kg	kilogram(s)	**RL**	Reporting Limit
L	liter(s)	**TNTC**	Too Numerous To Count
lb.	pound(s)	**µg**	microgram(s)
m3	cubic meter(s)	**µL**	microliter(s)
meq	milliequivalents	**umhos/cm**	micromhos/cm

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report
B	Detection in the Blank
Q0	LCS/LCSD Low
Q1	LCS/LCSD High
Q2	MS/MSD Low
Q3	MS/MSD High
Q7	LCS/LCSD RPD
Q8	DUP RPD
Q9	MS/MSD RPD

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

Report Date: April 13, 2018 15:13

Project: Penrose Quarterly Perimeter Sampling

Account #: 16657
Group Number: 1926973
PO Number: 213402429
State of Sample Origin: PA

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our current scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ . To request copies of prior scopes of accreditation, contact your project manager.

Electronic Copy To Evergreen c/o Stantec Attn: Andrew Bradley

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252



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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
S-239-20180402 Grab Groundwater	04/02/2018 10:30	9538676
S-243-20180402 Grab Groundwater	04/02/2018 11:00	9538677
S-224-20180402 Grab Groundwater	04/02/2018 11:45	9538678
S-223-20180402 Grab Groundwater	04/02/2018 12:30	9538679

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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Analysis Report

Sample Description: **S-239-20180402 Grab Groundwater**
Penrose System Perimeter GWS

Project Name: **Penrose Quarterly Perimeter Sampling**

Submittal Date/Time: 04/03/2018 17:29
Collection Date/Time: 04/02/2018 10:30

Evergreen c/o Stantec
ELLE Sample #: WW 9538676
ELLE Group #: 1926973
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	UST BTEX in Water 8260	SW-846 8260B	1	F181011AA	04/11/2018 18:47	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F181011AA	04/11/2018 18:47	Daniel H Heller	1

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Analysis Report

Sample Description: **S-243-20180402 Grab Groundwater**
Penrose System Perimeter GWS

Project Name: **Penrose Quarterly Perimeter Sampling**

Submittal Date/Time: 04/03/2018 17:29
Collection Date/Time: 04/02/2018 11:00

Evergreen c/o Stantec
ELLE Sample #: WW 9538677
ELLE Group #: 1926973
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	3	0.5	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	4	0.5	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	UST BTEX in Water 8260	SW-846 8260B	1	F181011AA	04/11/2018 19:09	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F181011AA	04/11/2018 19:09	Daniel H Heller	1

Sample Description: **S-224-20180402 Grab Groundwater**
Penrose System Perimeter GWS

Project Name: **Penrose Quarterly Perimeter Sampling**

Submittal Date/Time: 04/03/2018 17:29
Collection Date/Time: 04/02/2018 11:45

Evergreen c/o Stantec
ELLE Sample #: WW 9538678
ELLE Group #: 1926973
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	370	5	10
10945	Ethylbenzene	100-41-4	410	5	10
10945	Toluene	108-88-3	110	5	10
10945	Xylene (Total)	1330-20-7	330	5	10

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	UST BTEX in Water 8260	SW-846 8260B	1	F181011AA	04/11/2018 19:31	Daniel H Heller	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F181011AA	04/11/2018 19:31	Daniel H Heller	10

Sample Description: **S-223-20180402 Grab Groundwater**
Penrose System Perimeter GWS

Project Name: **Penrose Quarterly Perimeter Sampling**

Submittal Date/Time: 04/03/2018 17:29
Collection Date/Time: 04/02/2018 12:30

Evergreen c/o Stantec
ELLE Sample #: WW 9538679
ELLE Group #: 1926973
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	1,800	10	20
10945	Ethylbenzene	100-41-4	530	10	20
10945	Toluene	108-88-3	150	10	20
10945	Xylene (Total)	1330-20-7	1,500	10	20

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	UST BTEX in Water 8260	SW-846 8260B	1	F181011AA	04/11/2018 19:53	Daniel H Heller	20
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F181011AA	04/11/2018 19:53	Daniel H Heller	20

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Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 04/13/2018 15:13

Group Number: 1926973

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	ug/l	ug/l
Batch number: F181011AA	Sample number(s): 9538676-9538679	
Benzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Toluene	N.D.	0.5
Xylene (Total)	N.D.	0.5

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F181011AA	Sample number(s): 9538676-9538679								
Benzene	20	17.79			89		80-120		
Ethylbenzene	20	18			90		80-120		
Toluene	20	18.11			91		80-120		
Xylene (Total)	60	53.66			89		80-120		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: F181011AA	Sample number(s): 9538676-9538679 UNSPK: P541278									
Benzene	60.59	20	79.83	20	77.97	96	87	80-120	2	30
Ethylbenzene	1.89	20	21.65	20	21.25	99	97	80-120	2	30
Toluene	2.27	20	21.91	20	21.17	98	94	80-120	3	30
Xylene (Total)	4.34	60	61.61	60	61.5	95	95	80-120	0	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

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Quality Control Summary

Client Name: Evergreen c/o Stantec
Group Number: 1926973
Reported: 04/13/2018 15:13

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: UST BTEX in Water 8260
Batch number: F181011AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9538676	102	94	102	99
9538677	100	90	101	97
9538678	100	92	103	98
9538679	100	90	101	99
Blank	103	95	102	98
LCS	97	94	102	98
MS	99	92	102	100
MSD	102	94	101	102
Limits:	80-120	80-120	80-120	80-120

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Environmental Analysis Request/Chain of Custody

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Acct. # 16657 Group # 1926973 Sample # 9538676-79

COC # 545069

Client Information

Client: Stantec	Acct. #: Evergreen
Project Name/#: (21340249) (PHL Refinery) Penrose System Perimeter GWS	PWSID #:
Project Manager: Andy Bradley	P.O. #:
Sampler: Dane Hopkins	Quote #:
State where samples were collected: Pa	For Compliance: Yes ☐ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ | Water ☒ Potable ☐ Ground ☐ NPDES ☐ Surface ☐ | Other: ____

Analysis Requested

Preservation Codes

BTEX 8260

For Lab Use Only

FSC: ____

SCR#: 224176

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 O=Other

Remarks

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers
S-239_20180402	4/2/18	1030	X		3
S-243_20180402		1100	X		3
S-224_20180402		1145	X		3
S-223_20180402		1230	X		3

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Date results are needed: ____

E-mail address: Andrew.Bradley@Stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)

Type III (Reduced non-CLP) NJ DKQP TX TRRP-13

NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
Bottle Storage	4/2/18	0600		4/2/18	0600
	4.3.18	1405		4.3.18	1405
	4.3.18	1729			
				4/3/18	1729

EDD Required? (Yes) No

If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other ____

Temperature upon receipt 0.8 °C

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Sample Administration Receipt Documentation Log

Doc Log ID: 212687

Group Number(s): 1926913

Client: Stantec

Delivery and Receipt Information

Delivery Method:	ELLE Courier	Arrival Timestamp:	04/03/2018 17:29
Number of Packages:	2	Number of Projects:	2
State/Province of Origin:	PA		

Arrival Condition Summary

Shipping Container Sealed:	No	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	VOA Vial Headspace ≥ 6mm:	No
Paperwork Enclosed:	Yes	Total Trip Blank Qty:	0
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Nicole Reiff (25684) at 17:51 on 04/03/2018

Samples Chilled Details

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT146	0.8	DT	Wet	Y	Bagged	N

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Lancaster, PA 17605-2425

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mg**	milligram(s)
C	degrees Celsius	**mL**	milliliter(s)
cfu	colony forming units	**MPN**	Most Probable Number
CP Units	cobalt-chloroplatinate units	**N.D.**	non-detect
F	degrees Fahrenheit	**ng**	nanogram(s)
g	gram(s)	**NTU**	nephelometric turbidity units
IU	International Units	**pg/L**	picogram/liter
kg	kilogram(s)	**RL**	Reporting Limit
L	liter(s)	**TNTC**	Too Numerous To Count
lb.	pound(s)	**µg**	microgram(s)
m3	cubic meter(s)	**µL**	microliter(s)
meq	milliequivalents	**umhos/cm**	micromhos/cm

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report
B	Detection in the Blank
Q0	LCS/LCSD Low
Q1	LCS/LCSD High
Q2	MS/MSD Low
Q3	MS/MSD High
Q7	LCS/LCSD RPD
Q8	DUP RPD
Q9	MS/MSD RPD

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

Report Date: October 08, 2018 18:08

Project: Evergreen PHL GWS

Account #: 16657
Group Number: 1991572
PO Number: 213402454
State of Sample Origin: PA

Electronic Copy To	Evergreen c/o Stantec	Attn: Jennifer Menges
Electronic Copy To	Evergreen c/o Stantec	Attn: Andrew Bradley

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
A-139_20180925 Grab Groundwater	09/25/2018 09:40	9822543
S-13_20180925 Grab Groundwater	09/25/2018 11:00	9822544
C-146_20180925 Grab Groundwater	09/25/2018 11:45	9822545
Trip Blank Water	09/17/2018	9822546

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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Analysis Report

Sample Description: **A-139_20180925 Grab Groundwater**
Evergreen PHL GWS

Project Name: **Evergreen PHL GWS**

Submittal Date/Time: 09/26/2018 16:33
Collection Date/Time: 09/25/2018 09:40

Evergreen c/o Stantec
ELLE Sample #: WW 9822543
ELLE Group #: 1991572
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

03277 Lab Filtration - Metals

The holding time was not met for dissolved sample filtration. The filtration time for dissolved metals is to be within 15 minutes from collection. Since the filtration occurred after receipt in the laboratory, the 15 minute criteria was exceeded. This sample was not collected per applicable Clean Water Act (40CFR136) or SW-846 regulations.

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.
This sample was filtered in the lab for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	182740605001A	10/05/2018 10:39	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	182740605001	10/02/2018 06:06	James L Mertz	1

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Sample Description: **S-13_20180925 Grab Groundwater**
Evergreen PHL GWS

Project Name: **Evergreen PHL GWS**

Submittal Date/Time: 09/26/2018 16:33
Collection Date/Time: 09/25/2018 11:00

Evergreen c/o Stantec
ELLE Sample #: WW 9822544
ELLE Group #: 1991572
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	1,500.E	10	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	240	0.2	1

The concentration reported for t-Butyl alcohol is estimated since it exceeds the calibration range of the instrument. A further diluted analysis was performed from a previously opened container with headspace and/or outside of the method holding time and confirms the initial analysis.

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.
This sample was filtered in the lab for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	Benzene, MTBE, TBA 8260	SW-846 8260B	1	D182741AA	10/01/2018 16:11	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D182741AA	10/01/2018 16:11	Alexander D Sechrist	1

Sample Description: **C-146_20180925 Grab Groundwater Evergreen PHL GWS**

Project Name: **Evergreen PHL GWS**

Submittal Date/Time: 09/26/2018 16:33
Collection Date/Time: 09/25/2018 11:45

Evergreen c/o Stantec
ELLE Sample #: WW 9822545
ELLE Group #: 1991572
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	
14249	Anthracene	120-12-7	2		0.1	1
14249	Benzo(a)anthracene	56-55-3	1		0.1	1
14249	Benzo(a)pyrene	50-32-8	0.7		0.1	1
14249	Benzo(b)fluoranthene	205-99-2	0.8		0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	0.3	J	0.1	1
14249	Chrysene	218-01-9	1		0.1	1
14249	Fluorene	86-73-7	5		0.1	1
14249	Naphthalene	91-20-3	24		0.1	1
14249	Phenanthrene	85-01-8	10		0.1	1
14249	Pyrene	129-00-0	3		0.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.
This sample was filtered in the lab for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14249	PAHs 8270C MINI	SW-846 8270C	1	18274WAA026	10/02/2018 15:08	Joseph M Gambler	1
07807	BNA Water Extraction	SW-846 3510C	1	18274WAA026	10/01/2018 16:40	Osvaldo R Sanchez	1

Sample Description: **Trip Blank Water**
Evergreen PHL GWS

Project Name: **Evergreen PHL GWS**

Submittal Date/Time: 09/26/2018 16:33
Collection Date/Time: 09/17/2018

Evergreen c/o Stantec
ELLE Sample #: WW 9822546
ELLE Group #: 1991572
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	
10945	Benzene	71-43-2	N.D.		0.2	1
10945	t-Butyl alcohol	75-65-0	14	J	10	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.2	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	Benzene, MTBE, TBA 8260	SW-846 8260B	1	D182741AA	10/01/2018 15:42	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D182741AA	10/01/2018 15:42	Alexander D Sechrist	1

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Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 10/08/2018 18:08

Group Number: 1991572

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	ug/l	ug/l
Batch number: D182741AA	Sample number(s): 9822544,9822546	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
Methyl Tertiary Butyl Ether	N.D.	0.2
Batch number: 18274WAA026	Sample number(s): 9822545	
Anthracene	N.D.	0.1
Benzo(a)anthracene	N.D.	0.1
Benzo(a)pyrene	N.D.	0.1
Benzo(b)fluoranthene	N.D.	0.1
Benzo(g,h,i)perylene	N.D.	0.1
Chrysene	N.D.	0.1
Fluorene	N.D.	0.1
Naphthalene	N.D.	0.1
Phenanthrene	N.D.	0.1
Pyrene	N.D.	0.1
Batch number: 182740605001A	Sample number(s): 9822543	
Lead	N.D.	1.1

LCS/LCSD

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	ug/l	ug/l	ug/l	ug/l					
Batch number: D182741AA	Sample number(s): 9822544,9822546								
Benzene	20	21.85			109		80-120		
t-Butyl alcohol	200	178.03			89		60-130		
Methyl Tertiary Butyl Ether	20	22.37			112		69-122		
	ug/l	ug/l	ug/l	ug/l					
Batch number: 18274WAA026	Sample number(s): 9822545								
Anthracene	50	41.49	50	42.83	83	86	70-118	3	30
Benzo(a)anthracene	50	43.15	50	45.23	86	90	70-123	5	30
Benzo(a)pyrene	50	45.14	50	45.86	90	92	71-122	2	30
Benzo(b)fluoranthene	50	44.11	50	45.31	88	91	70-120	3	30
Benzo(g,h,i)perylene	50	43.21	50	42.84	86	86	64-119	1	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

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Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 10/08/2018 18:08

Group Number: 1991572

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Chrysene	50	42.79	50	44.27	86	89	71-123	3	30
Fluorene	50	39.4	50	41.03	79	82	62-116	4	30
Naphthalene	50	32.36	50	33.55	65	67	54-107	4	30
Phenanthrene	50	41.81	50	42.27	84	85	68-118	1	30
Pyrene	50	42.29	50	43.79	85	88	68-118	3	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 182740605001A	Sample number(s): 9822543								
Lead	15	15.61			104		90-110		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: D182741AA	Sample number(s): 9822544,9822546 UNSPK: 9822544									
Benzene	N.D.	20	19.08	20	20.8	95	104	80-120	9	30
t-Butyl alcohol	1516.69	200	2108.29	200	2390.09	296 (2)	437 (2)	60-130	13	30
Methyl Tertiary Butyl Ether	238.55	20	254.77	20	273.45	81 (2)	175 (2)	69-122	7	30
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 182740605001A	Sample number(s): 9822543 UNSPK: P824159									
Lead	N.D.	15	15.51	15	16.15	103	108	75-125	4	20

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc ug/l	DUP Conc ug/l	DUP RPD	DUP RPD Max
Batch number: 182740605001A	Sample number(s): 9822543 BKG: P824159			
Lead	N.D.	N.D.	0 (1)	20

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

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Quality Control Summary

Client Name: Evergreen c/o Stantec
Group Number: 1991572
Reported: 10/08/2018 18:08

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: Benzene, MTBE, TBA 8260
Batch number: D182741AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9822544	107	101	96	100
9822546	109	100	94	98
Blank	107	98	96	99
LCS	106	99	97	102
MS	107	101	95	101
MSD	106	102	97	101
Limits:	80-120	80-120	80-120	80-120

Analysis Name: PAHs 8270C MINI
Batch number: 18274WAA026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
9822545	66	58	48
Blank	69	65	69
LCS	77	71	80
LCSD	81	71	83
Limits:	30-111	39-105	27-126

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Environmental Analysis Request/Chain of Custody

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Acct. # 16657 Group # 199572 Sample # 9822543-46

COC # 577884

Client Information

Client: Stantec c/o Evergreen	Acct. #: Evergreen
Project Name/#: 213402454	PWSID #:
Project Manager: Jennifer Menges	P.O. #:
Sampler: Dave Hoguhs	Quote #:
State where samples were collected: Pa	For Compliance: Yes ☐ No ☐

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Sediment	Tissue	Ground Water	Potable Water	Surface Water	NPDES	Other:	Total # of Containers	TBA/MTBE	Benzene	Dissolved Lead (Lab Filtered)	Evergreen Short List SVOCs (8270)
A-139-20180925	9/25/18	0940	X					X					1			X	
S-13-20180925	↓	1100	X					X					3	X	X		
C-146-20180925	↓	1145	X					X					2				X
Trip Blank	9/17/18	—											2	X	X		

Preservation and Filtration Codes

For Lab Use Only

FSC:

SCR#: 231590

Preservation Codes

H=HCl	T=Thiosulfate
N=HNO_3	B=NaOH
S=H_2SO_4	P=H_3PO_4
F=Field Filtered	O=Other

Remarks

*See attached short list of SVOC compounds

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days:

E-mail address: Jennifer.Menges@stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)

Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13

NYSDEC Category A or B | MA MCP | CT RCP

Relinquished by	Date	Time	Received by	Date	Time
Bottle Storage	9/18/18	0700		9/18/18	0700
	9.26.18	1345		9.26.18	13:45
	9.26.18	1634			
				9-26-18	1633

EDD Required? Yes No

If yes, format:

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____

Temperature upon receipt 1.2 °C

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Sample Administration Receipt Documentation Log

Doc Log ID: 228185

Group Number(s): 1991572

Client: Stantec c/o Evergreen

Delivery and Receipt Information

Delivery Method:	ELLE Courier	Arrival Timestamp:	09/26/2018 16:33
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	PA		

Arrival Condition Summary

Shipping Container Sealed:	No	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	VOA Vial Headspace ≥ 6mm:	No
Paperwork Enclosed:	Yes	Total Trip Blank Qty:	2
Samples Intact:	Yes	Trip Blank Type:	HCl
Missing Samples:	No	Air Quality Samples Present:	No
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Cory Jeremiah (10469) at 19:16 on 09/26/2018

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT42-01	1.2	DT	Wet	Y	Bagged	N

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Lancaster, PA 17605-2425

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report
B	Detection in the Blank
Q0	LCS/LCSD Low
Q1	LCS/LCSD High
Q2	MS/MSD Low
Q3	MS/MSD High
Q7	LCS/LCSD RPD
Q8	DUP RPD
Q9	MS/MSD RPD

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

Report Date: November 14, 2018 18:05

Project: PHL Refinery GWS

Account #: 16657
Group Number: 2004864
PO Number: PHL REFINERY GWS
State of Sample Origin: PA

Electronic Copy To	Evergreen c/o Stantec	Attn: Jennifer Menges
Electronic Copy To	Evergreen c/o Stantec	Attn: Andrew Bradley

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

To view our laboratory's current scopes of accreditation please go to http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ . Historical copies may be requested through your project manager.



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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
A-139_20181031 Grab Groundwater	10/31/2018 10:35	9879535
C-146_20181031 Grab Groundwater	10/31/2018 11:55	9879536
S-13_20181031 Grab Groundwater	10/31/2018 13:15	9879537
Trip Blank Water	10/26/2018	9879538

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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Analysis Report

Sample Description: **A-139_20181031 Grab Groundwater**
PHL Refinery GWS

Project Name: **PHL Refinery GWS**

Submittal Date/Time: 11/01/2018 14:47
Collection Date/Time: 10/31/2018 10:35

Evergreen c/o Stantec
ELLE Sample #: WW 9879535
ELLE Group #: 2004864
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	82.4	1.1	1

03277 Lab Filtration - Metals

The holding time was not met for dissolved sample filtration. The filtration time for dissolved metals is to be within 15 minutes from collection. Since the filtration occurred after receipt in the laboratory, the 15 minute criteria was exceeded. This sample was not collected per applicable Clean Water Act (40CFR136) or SW-846 regulations.

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.
This sample was filtered in the lab for dissolved metals..

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	183100605001A	11/09/2018 18:17	Bradley M Berlot	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	183100605001	11/07/2018 05:20	Annamaria Kuhns	1

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Sample Description: C-146_20181031 Grab Groundwater
PHL Refinery GWS

Project Name: PHL Refinery GWS

Submittal Date/Time: 11/01/2018 14:47
Collection Date/Time: 10/31/2018 11:55

Evergreen c/o Stantec
ELLE Sample #: WW 9879536
ELLE Group #: 2004864
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	4	0.1	1
14249	Benzo(a)anthracene	56-55-3	3	0.1	1
14249	Benzo(a)pyrene	50-32-8	2	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	2	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	1	0.1	1
14249	Chrysene	218-01-9	4	0.1	1
14249	Fluorene	86-73-7	10	0.1	1
14249	Naphthalene	91-20-3	29	0.1	1
14249	Phenanthrene	85-01-8	20	0.1	1
14249	Pyrene	129-00-0	8	0.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14249	PAHs 8270C MINI	SW-846 8270C	1	18306WAJ026	11/09/2018 13:09	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	18306WAJ026	11/03/2018 09:00	Joshua S Ruth	1

Sample Description: **S-13_20181031 Grab Groundwater**
PHL Refinery GWS

Project Name: **PHL Refinery GWS**

Submittal Date/Time: 11/01/2018 14:47
Collection Date/Time: 10/31/2018 13:15

Evergreen c/o Stantec
ELLE Sample #: WW 9879537
ELLE Group #: 2004864
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	1,100	100	10
10945	Methyl Tertiary Butyl Ether	1634-04-4	120	0.2	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	Benzene, MTBE, TBA 8260	SW-846 8260B	1	F183131AA	11/09/2018 16:29	Anita M Dale	1
10945	Benzene, MTBE, TBA 8260	SW-846 8260B	1	F183141AA	11/10/2018 10:24	Anita M Dale	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F183131AA	11/09/2018 16:29	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F183141AA	11/10/2018 10:24	Anita M Dale	10

Sample Description: **Trip Blank Water**
PHL Refinery GWS

Project Name: **PHL Refinery GWS**

Submittal Date/Time: 11/01/2018 14:47
Collection Date/Time: 10/26/2018

Evergreen c/o Stantec
ELLE Sample #: WW 9879538
ELLE Group #: 2004864
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.
This sample was filtered in the lab for dissolved metals..

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	Benzene, MTBE, TBA 8260	SW-846 8260B	1	D183121AA	11/08/2018 13:14	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D183121AA	11/08/2018 13:14	Alexander D Sechrist	1

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 11/14/2018 18:05

Group Number: 2004864

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	ug/l	ug/l
Batch number: D183121AA	Sample number(s): 9879538	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
Methyl Tertiary Butyl Ether	N.D.	0.2
Batch number: F183131AA	Sample number(s): 9879537	
Benzene	N.D.	0.2
Methyl Tertiary Butyl Ether	N.D.	0.2
Batch number: F183141AA	Sample number(s): 9879537	
t-Butyl alcohol	N.D.	10
Batch number: 18306WAJ026	Sample number(s): 9879536	
Anthracene	N.D.	0.1
Benzo(a)anthracene	N.D.	0.1
Benzo(a)pyrene	N.D.	0.1
Benzo(b)fluoranthene	N.D.	0.1
Benzo(g,h,i)perylene	N.D.	0.1
Chrysene	N.D.	0.1
Fluorene	N.D.	0.1
Naphthalene	N.D.	0.1
Phenanthrene	N.D.	0.1
Pyrene	N.D.	0.1
Batch number: 183100605001A	Sample number(s): 9879535	
Lead	N.D.	1.1

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: D183121AA	Sample number(s): 9879538								
Benzene	20	18.45			92		80-120		
t-Butyl alcohol	200	165.49			83		60-130		
Methyl Tertiary Butyl Ether	20	19.62			98		69-122		
Batch number: F183131AA	Sample number(s): 9879537								
Benzene	20	21.16	20	20.42	106	102	80-120	4	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

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Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 11/14/2018 18:05

Group Number: 2004864

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Methyl Tertiary Butyl Ether	20	19.01	20	18.15	95	91	69-122	5	30
Batch number: F183141AA	Sample number(s): 9879537								
t-Butyl alcohol	200	177.02			89		60-130		
	ug/l	ug/l	ug/l	ug/l					
Batch number: 18306WAJ026	Sample number(s): 9879536								
Anthracene	50	46.36	50	41.45	93	83	70-118	11	30
Benzo(a)anthracene	50	44.7	50	39.78	89	80	70-123	12	30
Benzo(a)pyrene	50	49.48	50	45.16	99	90	71-122	9	30
Benzo(b)fluoranthene	50	47.25	50	44.3	94	89	70-120	6	30
Benzo(g,h,i)perylene	50	43.25	50	40.47	87	81	64-119	7	30
Chrysene	50	42.31	50	39.28	85	79	71-123	7	30
Fluorene	50	41.32	50	36.39	83	73	62-116	13	30
Naphthalene	50	40.92	50	36.86	82	74	54-107	10	30
Phenanthrene	50	44.33	50	41.89	89	84	68-118	6	30
Pyrene	50	44.93	50	40.63	90	81	68-118	10	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 183100605001A	Sample number(s): 9879535								
Lead	15	14.94			100		90-110		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: D183121AA	Sample number(s): 9879538 UNSPK: P880934									
Benzene	0.379	20	18.98	20	21.01	93	103	80-120	10	30
t-Butyl alcohol	N.D.	200	151.49	200	166.56	76	83	60-130	9	30
Methyl Tertiary Butyl Ether	N.D.	20	18.71	20	20.75	94	104	69-122	10	30
Batch number: F183141AA	Sample number(s): 9879537 UNSPK: P882112									
t-Butyl alcohol	N.D.	200	175.14	200	178.38	88	89	60-130	2	30
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 183100605001A	Sample number(s): 9879535 UNSPK: P881269									
Lead	N.D.	15	15.15	15	15.2	101	101	75-125	0	20

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 11/14/2018 18:05

Group Number: 2004864

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc ug/l	DUP Conc ug/l	DUP RPD	DUP RPD Max
Batch number: 183100605001A	Sample number(s): 9879535 BKG: P881269			
Lead	N.D.	N.D.	0 (1)	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: Benzene, MTBE, TBA 8260
Batch number: D183121AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9879538	113	100	98	101
Blank	109	99	99	101
LCS	107	101	100	105
MS	107	100	99	104
MSD	106	97	99	107
Limits:	80-120	80-120	80-120	80-120

Analysis Name: Benzene, MTBE, TBA 8260
Batch number: F183131AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9879537	93	98	101	96
Blank	92	98	101	96
LCS	91	98	102	98
LCSD	91	98	101	97
Limits:	80-120	80-120	80-120	80-120

Analysis Name: PAHs 8270C MINI
Batch number: 18306WAJ026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
9879536	63	63	49
Blank	74	86	83
LCS	78	90	81
LCSD	71	84	72
Limits:	30-111	39-105	27-126

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Environmental Analysis Request/Chain of Custody

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Acct. # 116657 Group # 2004864 Sample # 9879535-38

COC # 569461

Client Information

Client: Evergreen c/o Stantec	Acct. #: Evergreen
Project Name/#: Evergreen PHL Refinery GWS	PWSID #:
Project Manager: Jennifer Merges	P.O. #: 213402429
Sampler: Dane Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ | Water ☒ Potable ☐ Ground ☐ NPDES ☐ Surface ☐ | Other: ____

Analysis Requested

Preservation and Filtration Codes

For Lab Use Only

FSC: ____

SCR#: 233808

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Sediment	Tissue	Water	Potable	Ground	NPDES	Surface	Other	Total # of Containers	dissolved lead	MTBE, TBA, benzene	Short List SVOCs
A-139-20181031	10/31/18	1035	X					X						1	X		
C-146-20181031	↓	1155	X					X						2			X
S-13-20181031	↓	1315	X					X						3		X	
TRIP BLANK	10/26/18	—											TB	2		X	

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: ____

E-mail address: jennifer.merges@stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)

Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13

NYSDEC Category A or B | MA MCP | CT RCP

Relinquished by	Date	Time	Received by	Date	Time
Bottle Storage	10.29.18	9:55		10.29.18	855
	10.29.18	1200	In Lobby	10.29.18	1200
In Lobby	10/29/18	1230		10/29/18	1230
	11.1.18	1130		11.1.18	1130
	11.1.18	14:47		11/18	1447

EDD Required? Yes No

If yes, format: EQUIS

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other ____

Temperature upon receipt 6.6 °C

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Sample Administration Receipt Documentation Log

Doc Log ID: 231832

Group Number(s): 2004864

Client: Stantec

Delivery and Receipt Information

Delivery Method:	ELLE Courier	Arrival Timestamp:	11/01/2018 14:47
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	DE		

Arrival Condition Summary

Shipping Container Sealed:	No	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	VOA Vial Headspace ≥ 6mm:	N/A
Paperwork Enclosed:	Yes	Total Trip Blank Qty:	2
Samples Intact:	Yes	Trip Blank Type:	HCl
Missing Samples:	No	Air Quality Samples Present:	No
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Wanita Curry (14057) at 22:39 on 11/01/2018

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT42-01	1.6	DT	Wet	Y	Bagged	N

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Lancaster, PA 17605-2425
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F | 717-656-2681
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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report
B	Detection in the Blank
Q0	LCS/LCSD Low
Q1	LCS/LCSD High
Q2	MS/MSD Low
Q3	MS/MSD High
Q7	LCS/LCSD RPD
Q8	DUP RPD
Q9	MS/MSD RPD

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

Report Date: December 10, 2018 22:12

Project: (PHL Refinery) Penrose System Perimeter GWS

Account #: 16657
Group Number: 2013545
PO Number: 213402429
State of Sample Origin: PA

Electronic Copy To	Evergreen c/o Stantec	Attn: Andrew Bradley
Electronic Copy To	Evergreen c/o Stantec	Attn: Jennifer Menges

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

To view our laboratory's current scopes of accreditation please go to http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ . Historical copies may be requested through your project manager.



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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
S-239_20181128 Grab Groundwater	11/28/2018 08:50	9917743
S-243_20181128 Grab Groundwater	11/28/2018 10:00	9917744
S-224_20181128 Grab Groundwater	11/28/2018 10:45	9917745
S-223_20181128 Grab Groundwater	11/28/2018 11:50	9917746

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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Sample Description: **S-239_20181128 Grab Groundwater**
(PHL Refinery) Penrose System Perimeter GWS

Project Name: **(PHL Refinery) Penrose System Perimeter GWS**

Submittal Date/Time: 11/29/2018 16:35
Collection Date/Time: 11/28/2018 08:50

Evergreen c/o Stantec
ELLE Sample #: WW 9917743
ELLE Group #: 2013545
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	UST BTEX in Water 8260	SW-846 8260B	1	F183382AA	12/04/2018 18:54	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F183382AA	12/04/2018 18:53	Alexander D Sechrist	1

Sample Description: **S-243_20181128 Grab Groundwater (PHL Refinery) Penrose System Perimeter GWS**

Project Name: **(PHL Refinery) Penrose System Perimeter GWS**

Submittal Date/Time: 11/29/2018 16:35
Collection Date/Time: 11/28/2018 10:00

Evergreen c/o Stantec
ELLE Sample #: WW 9917744
ELLE Group #: 2013545
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	Ethylbenzene	100-41-4	0.4 J	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	UST BTEX in Water 8260	SW-846 8260B	1	F183382AA	12/04/2018 19:15	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F183382AA	12/04/2018 19:14	Alexander D Sechrist	1

Sample Description: **S-224_20181128 Grab Groundwater (PHL Refinery) Penrose System Perimeter GWS**

Project Name: **(PHL Refinery) Penrose System Perimeter GWS**

Submittal Date/Time: 11/29/2018 16:35
Collection Date/Time: 11/28/2018 10:45

Evergreen c/o Stantec
ELLE Sample #: WW 9917745
ELLE Group #: 2013545
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	240	10	50
10945	Ethylbenzene	100-41-4	170	0.2	1
10945	Toluene	108-88-3	49	0.2	1
10945	Xylene (Total)	1330-20-7	220	0.5	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	UST BTEX in Water 8260	SW-846 8260B	1	F183382AA	12/04/2018 19:37	Alexander D Sechrist	1
10945	UST BTEX in Water 8260	SW-846 8260B	1	D183394AA	12/06/2018 00:08	Hu Yang	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F183382AA	12/04/2018 19:36	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	D183394AA	12/06/2018 00:07	Hu Yang	50

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Sample Description: **S-223_20181128 Grab Groundwater (PHL Refinery) Penrose System Perimeter GWS**

Project Name: **(PHL Refinery) Penrose System Perimeter GWS**

Submittal Date/Time: 11/29/2018 16:35
Collection Date/Time: 11/28/2018 11:50

Evergreen c/o Stantec
ELLE Sample #: WW 9917746
ELLE Group #: 2013545
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	1,500	2	10
10945	Ethylbenzene	100-41-4	370	2	10
10945	Toluene	108-88-3	220	2	10
10945	Xylene (Total)	1330-20-7	980	5	10

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	UST BTEX in Water 8260	SW-846 8260B	1	D183394AA	12/06/2018 00:32	Hu Yang	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D183394AA	12/06/2018 00:31	Hu Yang	10

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Quality Control Summary

Client Name: Evergreen c/o Stantec
Group Number: 2013545
Reported: 12/10/2018 22:12

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	ug/l	ug/l
Batch number: D183394AA	Sample number(s): 9917745-9917746	
Benzene	N.D.	0.2
Ethylbenzene	N.D.	0.2
Toluene	N.D.	0.2
Xylene (Total)	N.D.	0.5
Batch number: F183382AA	Sample number(s): 9917743-9917745	
Benzene	N.D.	0.2
Ethylbenzene	N.D.	0.2
Toluene	N.D.	0.2
Xylene (Total)	N.D.	0.5

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: D183394AA	Sample number(s): 9917745-9917746								
Benzene	20	20.69			103		80-120		
Ethylbenzene	20	20.32			102		80-120		
Toluene	20	20.57			103		80-120		
Xylene (Total)	60	61.82			103		80-120		
Batch number: F183382AA	Sample number(s): 9917743-9917745								
Benzene	20	20.91			105		80-120		
Ethylbenzene	20	19.23			96		80-120		
Toluene	20	20.29			101		80-120		
Xylene (Total)	60	61.73			103		80-120		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc	MS Spike Added	MS Conc	MSD Spike Added	MSD Conc	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 12/10/2018 22:12

Group Number: 2013545

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: D183394AA	Sample number(s): 9917745-9917746 UNSPK: P921416									
Benzene	N.D.	20	20.26	20	21.21	101	106	80-120	5	30
Ethylbenzene	N.D.	20	19.61	20	20.82	98	104	80-120	6	30
Toluene	N.D.	20	19.85	20	20.83	99	104	80-120	5	30
Xylene (Total)	N.D.	60	59.22	60	61.8	99	103	80-120	4	30
Batch number: F183382AA	Sample number(s): 9917743-9917745 UNSPK: P919442									
Benzene	N.D.	20	24.91	20	25.02	125*	125*	80-120	0	30
Ethylbenzene	N.D.	20	22.47	20	24.52	112	123*	80-120	9	30
Toluene	N.D.	20	23.06	20	24.99	115	125*	80-120	8	30
Xylene (Total)	N.D.	60	71.46	60	75.19	119	125*	80-120	5	30

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: UST BTEX in Water 8260
Batch number: D183394AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9917746	94	94	101	96
Blank	94	96	100	93
LCS	94	97	101	97
MS	93	101	100	97
MSD	94	97	100	97
Limits:	80-120	80-120	80-120	80-120

Analysis Name: UST BTEX in Water 8260
Batch number: F183382AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9917743	108	102	97	93
9917744	119	110	97	94
9917745	104	100	98	104
Blank	119	113	107	89
LCS	103	103	96	97
MS	107	106	94	104
MSD	104	102	98	103
Limits:	80-120	80-120	80-120	80-120

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P####### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

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Quality Control Summary

Client Name: Evergreen c/o Stantec
Group Number: 2013545
Reported: 12/10/2018 22:12

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Environmental Analysis Request/Chain of Custody

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Acct. # 116057 Group # 2013545 Sample # 9917743-47

COC # 571455

Client Information

Client: Stantec	Acct. #: Evergreen
Project Name/#: (PM Bethany) Penrose System Perimeter	PWSID #: GWS
Project Manager: Andy Bradley / Jennifer Menges	P.O. #: 213402429
Sampler: Dane Hopkins	Quote #:
State where samples were collected: Pa	For Compliance: Yes ☐ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ Surface ☐ NPDES ☐ | Other: ____

Analysis Requested

Preservation and Filtration Codes

For Lab Use Only

FSC:

SCR#: 235340

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Water	Other	Total # of Containers	#	BTEX 8260	Remarks
S-239_20181128	11/28/18	0850	X			X		3	X		
S-243_20181128		1000	X			X		3	X		
S-224_20181128		1045	X			X		3	X		
S-223_20181128		1150	X			X		3	X		

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: ____

E-mail address: Jennifer.Menges@Stantec.com Andrew.Bradley@Stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)

Type III (Reduced non-CLP) NJ DKQP TX TRRP-13

NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
Bottle Storage	11/27/18	1500		11/27/18	1500
	11/29/18	12:00		11/29/18	12:00
	11/29/18	16:35			
				11/29/18	1635

EDD Required? (Yes) No

If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:

UPS ____ FedEx ____ Other ____

Temperature upon receipt 1.4 °C

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Sample Administration Receipt Documentation Log

Doc Log ID: 234576

Group Number(s):

Client: Stantec

2013595

Delivery and Receipt Information

Delivery Method:	ELLE Courier	Arrival Timestamp:	11/29/2018 16:35
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	PA		

Arrival Condition Summary

Shipping Container Sealed:	No	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	VOA Vial Headspace ≥ 6mm:	No
Paperwork Enclosed:	Yes	Total Trip Blank Qty:	2
Samples Intact:	Yes	Trip Blank Type:	HCl
Missing Samples:	No	Air Quality Samples Present:	No
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Wesley Miller (2308) at 21:30 on 11/29/2018

Samples Chilled Details

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT42-01	1.4	DT	Wet	Y	Bagged	N

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Lancaster, PA 17605-2425
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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report
B	Detection in the Blank
Q0	LCS/LCSD Low
Q1	LCS/LCSD High
Q2	MS/MSD Low
Q3	MS/MSD High
Q7	LCS/LCSD RPD
Q8	DUP RPD
Q9	MS/MSD RPD

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

PES c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

Report Date: March 07, 2019 13:40

Project: PES Reformate GWs

Account #: 42093
Group Number: 2031387
PO Number: PES REFORMATE
State of Sample Origin: PA

Electronic Copy To	PES c/o Stantec	Attn: Andrew Bradley
Electronic Copy To	PES c/o Stantec	Attn: Andrew Klingbeil

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
C-129D_20190226 Grab Groundwater	02/26/2019 09:11	9995291
S-280D_20190226 Grab Groundwater	02/26/2019 10:15	9995292
S-284D_20190226 Grab Groundwater	02/26/2019 10:59	9995293
S-69D_20190226 Grab Groundwater	02/26/2019 11:55	9995294
C-174_20190226 Grab Groundwater	02/26/2019 12:32	9995295
BF-103R_20190226 Grab Groundwater	02/26/2019 13:30	9995296
S-413_20190226 Grab Groundwater	02/26/2019 14:10	9995297
EB_20190226-01 Grab Water	02/26/2019 14:20	9995298
EB_20190226-02 Grab Water	02/26/2019 14:25	9995299
TRIP BLANK-2 Water	02/21/2019	9995300

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Sample Description: C-129D_20190226 Grab Groundwater
PES Reformate GWs

Project Name: PES Reformate GWs

Submittal Date/Time: 02/28/2019 12:50
Collection Date/Time: 02/26/2019 09:11

PES c/o Stantec
ELLE Sample #: WW 9995291
ELLE Group #: 2031387
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	
10335	Acetone	67-64-1	11	J	0.8	1
10335	Benzene	71-43-2	0.2	J	0.2	1
10335	Bromodichloromethane	75-27-4	N.D.		0.2	1
10335	Bromoform	75-25-2	N.D.		2	1
10335	Bromomethane	74-83-9	N.D.		0.5	1
10335	2-Butanone	78-93-3	N.D.		1	1
10335	Carbon Disulfide	75-15-0	N.D.		0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.		0.2	1
10335	Chlorobenzene	108-90-7	N.D.		0.2	1
10335	Chloroethane	75-00-3	N.D.		0.3	1
10335	Chloroform	67-66-3	N.D.		0.2	1
10335	Chloromethane	74-87-3	N.D.		0.3	1
10335	Cyclohexane	110-82-7	N.D.		2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.		1	1
10335	Dibromochloromethane	124-48-1	N.D.		0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.		0.3	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.		0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.		0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.		0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.		0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.		0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.		2	1
10335	1,1-Dichloroethene	75-35-4	N.D.		0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.		0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.		0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.		0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.		0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.		0.2	1
10335	Ethylbenzene	100-41-4	N.D.		0.2	1
10335	Freon 113	76-13-1	N.D.		2	1
10335	2-Hexanone	591-78-6	N.D.		3	1
10335	Isopropylbenzene	98-82-8	N.D.		0.3	1
10335	Methyl Acetate	79-20-9	N.D.		0.6	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	0.3	J	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.		0.5	1
10335	Methylcyclohexane	108-87-2	N.D.		0.2	1
10335	Methylene Chloride	75-09-2	0.3	J B	0.2	1
10335	Styrene	100-42-5	N.D.		0.2	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.		0.2	1
10335	Tetrachloroethene	127-18-4	N.D.		0.2	1
10335	Toluene	108-88-3	N.D.		0.2	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.		0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.		0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.		0.2	1
10335	Trichloroethene	79-01-6	N.D.		0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.		0.4	1
10335	Vinyl Chloride	75-01-4	N.D.		0.4	1
10335	Xylene (Total)	1330-20-7	N.D.		0.5	1

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Sample Description: **C-129D_20190226 Grab Groundwater**
PES Reformate GWs

Project Name: **PES Reformate GWs**

Submittal Date/Time: 02/28/2019 12:50
Collection Date/Time: 02/26/2019 09:11

PES c/o Stantec
ELLE Sample #: WW 9995291
ELLE Group #: 2031387
Matrix: Groundwater

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	TCL (4.3) 8260 Water	SW-846 8260B	1	Y190641AA	03/05/2019 16:58	Jennifer K Howe	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y190641AA	03/05/2019 16:57	Jennifer K Howe	1

Sample Description: **S-280D_20190226 Grab Groundwater**
PES Reformate GWs

Project Name: **PES Reformate GWs**

Submittal Date/Time: 02/28/2019 12:50
Collection Date/Time: 02/26/2019 10:15

PES c/o Stantec
ELLE Sample #: WW 9995292
ELLE Group #: 2031387
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	N.D.	0.8	1
10335	Benzene	71-43-2	N.D.	0.2	1
10335	Bromodichloromethane	75-27-4	N.D.	0.2	1
10335	Bromoform	75-25-2	N.D.	2	1
10335	Bromomethane	74-83-9	N.D.	0.5	1
10335	2-Butanone	78-93-3	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	0.2	1
10335	Chloroethane	75-00-3	N.D.	0.3	1
10335	Chloroform	67-66-3	N.D.	0.2	1
10335	Chloromethane	74-87-3	N.D.	0.3	1
10335	Cyclohexane	110-82-7	N.D.	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	1	1
10335	Dibromochloromethane	124-48-1	N.D.	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.3	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	0.3	1
10335	1,1-Dichloroethane	75-34-3	0.6 J	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	0.2	1
10335	Freon 113	76-13-1	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	Isopropylbenzene	98-82-8	N.D.	0.3	1
10335	Methyl Acetate	79-20-9	N.D.	0.6	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	0.4 J	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	0.5	1
10335	Methylcyclohexane	108-87-2	N.D.	0.2	1
10335	Methylene Chloride	75-09-2	0.2 J B	0.2	1
10335	Styrene	100-42-5	N.D.	0.2	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	0.2	1
10335	Toluene	108-88-3	N.D.	0.2	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.2	1
10335	Trichloroethene	79-01-6	N.D.	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	0.4	1
10335	Vinyl Chloride	75-01-4	N.D.	0.4	1
10335	Xylene (Total)	1330-20-7	N.D.	0.5	1

Sample Description: **S-280D_20190226 Grab Groundwater**
PES Reformate GWs

Project Name: **PES Reformate GWs**

Submittal Date/Time: 02/28/2019 12:50
Collection Date/Time: 02/26/2019 10:15

PES c/o Stantec
ELLE Sample #: WW 9995292
ELLE Group #: 2031387
Matrix: Groundwater

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	TCL (4.3) 8260 Water	SW-846 8260B	1	Y190641AA	03/05/2019 14:01	Jennifer K Howe	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y190641AA	03/05/2019 14:00	Jennifer K Howe	1

Sample Description: **S-284D_20190226 Grab Groundwater**
PES Reformate GWs

Project Name: **PES Reformate GWs**

Submittal Date/Time: 02/28/2019 12:50
Collection Date/Time: 02/26/2019 10:59

PES c/o Stantec
ELLE Sample #: WW 9995293
ELLE Group #: 2031387
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	2 J	0.8	1
10335	Benzene	71-43-2	0.3 J	0.2	1
10335	Bromodichloromethane	75-27-4	N.D.	0.2	1
10335	Bromoform	75-25-2	N.D.	2	1
10335	Bromomethane	74-83-9	N.D.	0.5	1
10335	2-Butanone	78-93-3	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	0.2	1
10335	Chloroethane	75-00-3	N.D.	0.3	1
10335	Chloroform	67-66-3	N.D.	0.2	1
10335	Chloromethane	74-87-3	N.D.	0.3	1
10335	Cyclohexane	110-82-7	4 J	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	1	1
10335	Dibromochloromethane	124-48-1	N.D.	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.3	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	0.2	1
10335	Freon 113	76-13-1	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	Isopropylbenzene	98-82-8	N.D.	0.3	1
10335	Methyl Acetate	79-20-9	N.D.	0.6	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	0.5	1
10335	Methylcyclohexane	108-87-2	74	0.2	1
10335	Methylene Chloride	75-09-2	0.6 J B	0.2	1
10335	Styrene	100-42-5	N.D.	0.2	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	0.2	1
10335	Toluene	108-88-3	N.D.	0.2	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.2	1
10335	Trichloroethene	79-01-6	N.D.	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	0.4	1
10335	Vinyl Chloride	75-01-4	N.D.	0.4	1
10335	Xylene (Total)	1330-20-7	N.D.	0.5	1

Sample Description: **S-284D_20190226 Grab Groundwater**
PES Reformate GWs

Project Name: **PES Reformate GWs**

Submittal Date/Time: 02/28/2019 12:50
Collection Date/Time: 02/26/2019 10:59

PES c/o Stantec
ELLE Sample #: WW 9995293
ELLE Group #: 2031387
Matrix: Groundwater

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	TCL (4.3) 8260 Water	SW-846 8260B	1	Y190641AA	03/05/2019 14:23	Jennifer K Howe	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y190641AA	03/05/2019 14:22	Jennifer K Howe	1

Sample Description: S-69D_20190226 Grab Groundwater
PES Reformate GWs

Project Name: PES Reformate GWs

Submittal Date/Time: 02/28/2019 12:50
Collection Date/Time: 02/26/2019 11:55

PES c/o Stantec
ELLE Sample #: WW 9995294
ELLE Group #: 2031387
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	1 J	0.8	1
10335	Benzene	71-43-2	N.D.	0.2	1
10335	Bromodichloromethane	75-27-4	N.D.	0.2	1
10335	Bromoform	75-25-2	N.D.	2	1
10335	Bromomethane	74-83-9	N.D.	0.5	1
10335	2-Butanone	78-93-3	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	0.2	1
10335	Chloroethane	75-00-3	N.D.	0.3	1
10335	Chloroform	67-66-3	N.D.	0.2	1
10335	Chloromethane	74-87-3	N.D.	0.3	1
10335	Cyclohexane	110-82-7	N.D.	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	1	1
10335	Dibromochloromethane	124-48-1	N.D.	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.3	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	0.2	1
10335	Freon 113	76-13-1	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	Isopropylbenzene	98-82-8	N.D.	0.3	1
10335	Methyl Acetate	79-20-9	N.D.	0.6	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	2	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	0.5	1
10335	Methylcyclohexane	108-87-2	N.D.	0.2	1
10335	Methylene Chloride	75-09-2	0.3 J B	0.2	1
10335	Styrene	100-42-5	N.D.	0.2	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	0.2	1
10335	Toluene	108-88-3	N.D.	0.2	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.2	1
10335	Trichloroethene	79-01-6	N.D.	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	0.4	1
10335	Vinyl Chloride	75-01-4	N.D.	0.4	1
10335	Xylene (Total)	1330-20-7	N.D.	0.5	1

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Sample Description: **S-69D_20190226 Grab Groundwater**
PES Reformate GWs

Project Name: **PES Reformate GWs**

Submittal Date/Time: 02/28/2019 12:50
Collection Date/Time: 02/26/2019 11:55

PES c/o Stantec
ELLE Sample #: WW 9995294
ELLE Group #: 2031387
Matrix: Groundwater

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	TCL (4.3) 8260 Water	SW-846 8260B	1	Y190641AA	03/05/2019 14:45	Jennifer K Howe	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y190641AA	03/05/2019 14:44	Jennifer K Howe	1

Sample Description: C-174_20190226 Grab Groundwater
PES Reformate GWs

Project Name: PES Reformate GWs

Submittal Date/Time: 02/28/2019 12:50
Collection Date/Time: 02/26/2019 12:32

PES c/o Stantec
ELLE Sample #: WW 9995295
ELLE Group #: 2031387
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	2 J	0.8	1
10335	Benzene	71-43-2	N.D.	0.2	1
10335	Bromodichloromethane	75-27-4	N.D.	0.2	1
10335	Bromoform	75-25-2	N.D.	2	1
10335	Bromomethane	74-83-9	N.D.	0.5	1
10335	2-Butanone	78-93-3	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	0.2	1
10335	Chloroethane	75-00-3	N.D.	0.3	1
10335	Chloroform	67-66-3	N.D.	0.2	1
10335	Chloromethane	74-87-3	N.D.	0.3	1
10335	Cyclohexane	110-82-7	N.D.	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	1	1
10335	Dibromochloromethane	124-48-1	N.D.	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.3	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	0.2	1
10335	Freon 113	76-13-1	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	Isopropylbenzene	98-82-8	N.D.	0.3	1
10335	Methyl Acetate	79-20-9	N.D.	0.6	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	0.5	1
10335	Methylcyclohexane	108-87-2	N.D.	0.2	1
10335	Methylene Chloride	75-09-2	0.5 J B	0.2	1
10335	Styrene	100-42-5	N.D.	0.2	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	0.2	1
10335	Toluene	108-88-3	N.D.	0.2	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.2	1
10335	Trichloroethene	79-01-6	N.D.	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	0.4	1
10335	Vinyl Chloride	75-01-4	N.D.	0.4	1
10335	Xylene (Total)	1330-20-7	N.D.	0.5	1

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Sample Description: **C-174_20190226 Grab Groundwater**
PES Reformate GWs

Project Name: **PES Reformate GWs**

Submittal Date/Time: 02/28/2019 12:50
Collection Date/Time: 02/26/2019 12:32

PES c/o Stantec
ELLE Sample #: WW 9995295
ELLE Group #: 2031387
Matrix: Groundwater

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	TCL (4.3) 8260 Water	SW-846 8260B	1	Y190641AA	03/05/2019 15:08	Jennifer K Howe	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y190641AA	03/05/2019 15:07	Jennifer K Howe	1

Sample Description: **BF-103R_20190226 Grab Groundwater**
PES Reformate GWs

Project Name: **PES Reformate GWs**

Submittal Date/Time: 02/28/2019 12:50
Collection Date/Time: 02/26/2019 13:30

PES c/o Stantec
ELLE Sample #: WW 9995296
ELLE Group #: 2031387
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	23	0.8	1
10335	Benzene	71-43-2	N.D.	0.2	1
10335	Bromodichloromethane	75-27-4	N.D.	0.2	1
10335	Bromoform	75-25-2	N.D.	2	1
10335	Bromomethane	74-83-9	N.D.	0.5	1
10335	2-Butanone	78-93-3	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	0.2	1
10335	Chloroethane	75-00-3	N.D.	0.3	1
10335	Chloroform	67-66-3	N.D.	0.2	1
10335	Chloromethane	74-87-3	N.D.	0.3	1
10335	Cyclohexane	110-82-7	N.D.	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	1	1
10335	Dibromochloromethane	124-48-1	N.D.	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.3	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	0.2	1
10335	Freon 113	76-13-1	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	Isopropylbenzene	98-82-8	N.D.	0.3	1
10335	Methyl Acetate	79-20-9	N.D.	0.6	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	0.5	1
10335	Methylcyclohexane	108-87-2	N.D.	0.2	1
10335	Methylene Chloride	75-09-2	1 B	0.2	1
10335	Styrene	100-42-5	N.D.	0.2	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	0.2	1
10335	Toluene	108-88-3	N.D.	0.2	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.2	1
10335	Trichloroethene	79-01-6	N.D.	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	0.4	1
10335	Vinyl Chloride	75-01-4	N.D.	0.4	1
10335	Xylene (Total)	1330-20-7	N.D.	0.5	1

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Sample Description: **BF-103R_20190226 Grab Groundwater**
PES Reformate GWs

Project Name: **PES Reformate GWs**

Submittal Date/Time: 02/28/2019 12:50
Collection Date/Time: 02/26/2019 13:30

PES c/o Stantec
ELLE Sample #: WW 9995296
ELLE Group #: 2031387
Matrix: Groundwater

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	TCL (4.3) 8260 Water	SW-846 8260B	1	Y190641AA	03/05/2019 15:30	Jennifer K Howe	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y190641AA	03/05/2019 15:29	Jennifer K Howe	1

Sample Description: S-413_20190226 Grab Groundwater
PES Reformate GWs

Project Name: PES Reformate GWs

Submittal Date/Time: 02/28/2019 12:50
Collection Date/Time: 02/26/2019 14:10

PES c/o Stantec
ELLE Sample #: WW 9995297
ELLE Group #: 2031387
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	11 J	0.8	1
10335	Benzene	71-43-2	1	0.2	1
10335	Bromodichloromethane	75-27-4	N.D.	0.2	1
10335	Bromoform	75-25-2	N.D.	2	1
10335	Bromomethane	74-83-9	N.D.	0.5	1
10335	2-Butanone	78-93-3	2 J	1	1
10335	Carbon Disulfide	75-15-0	N.D.	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	0.2	1
10335	Chloroethane	75-00-3	N.D.	0.3	1
10335	Chloroform	67-66-3	N.D.	0.2	1
10335	Chloromethane	74-87-3	N.D.	0.3	1
10335	Cyclohexane	110-82-7	12	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	1	1
10335	Dibromochloromethane	124-48-1	N.D.	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.3	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.2	1
10335	Ethylbenzene	100-41-4	0.3 J	0.2	1
10335	Freon 113	76-13-1	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	Isopropylbenzene	98-82-8	17	0.3	1
10335	Methyl Acetate	79-20-9	N.D.	0.6	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	0.5	1
10335	Methylcyclohexane	108-87-2	50	0.2	1
10335	Methylene Chloride	75-09-2	1 B	0.2	1
10335	Styrene	100-42-5	N.D.	0.2	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	0.2	1
10335	Toluene	108-88-3	0.2 J	0.2	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.2	1
10335	Trichloroethene	79-01-6	N.D.	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	0.4	1
10335	Vinyl Chloride	75-01-4	N.D.	0.4	1
10335	Xylene (Total)	1330-20-7	N.D.	0.5	1

Sample Description: **S-413_20190226 Grab Groundwater**
PES Reformate GWs

Project Name: **PES Reformate GWs**

Submittal Date/Time: 02/28/2019 12:50
Collection Date/Time: 02/26/2019 14:10

PES c/o Stantec
ELLE Sample #: WW 9995297
ELLE Group #: 2031387
Matrix: Groundwater

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	TCL (4.3) 8260 Water	SW-846 8260B	1	Y190641AA	03/05/2019 15:51	Jennifer K Howe	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y190641AA	03/05/2019 15:50	Jennifer K Howe	1

Sample Description: **EB_20190226-01 Grab Water**
PES Reformate GWs

Project Name: **PES Reformate GWs**

Submittal Date/Time: 02/28/2019 12:50
Collection Date/Time: 02/26/2019 14:20

PES c/o Stantec
ELLE Sample #: WW 9995298
ELLE Group #: 2031387
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	N.D.	0.8	1
10335	Benzene	71-43-2	N.D.	0.2	1
10335	Bromodichloromethane	75-27-4	N.D.	0.2	1
10335	Bromoform	75-25-2	N.D.	2	1
10335	Bromomethane	74-83-9	N.D.	0.5	1
10335	2-Butanone	78-93-3	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	0.2	1
10335	Chloroethane	75-00-3	N.D.	0.3	1
10335	Chloroform	67-66-3	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	0.3	1
10335	Cyclohexane	110-82-7	N.D.	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	1	1
10335	Dibromochloromethane	124-48-1	N.D.	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.3	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	0.2	1
10335	Freon 113	76-13-1	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	Isopropylbenzene	98-82-8	N.D.	0.3	1
10335	Methyl Acetate	79-20-9	N.D.	0.6	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	0.5	1
10335	Methylcyclohexane	108-87-2	N.D.	0.2	1
10335	Methylene Chloride	75-09-2	0.3 J B	0.2	1
10335	Styrene	100-42-5	N.D.	0.2	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	0.2	1
10335	Toluene	108-88-3	N.D.	0.2	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.2	1
10335	Trichloroethene	79-01-6	N.D.	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	0.4	1
10335	Vinyl Chloride	75-01-4	N.D.	0.4	1
10335	Xylene (Total)	1330-20-7	N.D.	0.5	1

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Sample Description: **EB_20190226-01 Grab Water**
PES Reformate GWs

Project Name: **PES Reformate GWs**

Submittal Date/Time: 02/28/2019 12:50
Collection Date/Time: 02/26/2019 14:20

PES c/o Stantec
ELLE Sample #: WW 9995298
ELLE Group #: 2031387
Matrix: Water

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	TCL (4.3) 8260 Water	SW-846 8260B	1	Y190641AA	03/05/2019 10:43	Jennifer K Howe	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y190641AA	03/05/2019 10:42	Jennifer K Howe	1

Sample Description: **EB_20190226-02 Grab Water**
PES Reformate GWs

Project Name: **PES Reformate GWs**

Submittal Date/Time: 02/28/2019 12:50
Collection Date/Time: 02/26/2019 14:25

PES c/o Stantec
ELLE Sample #: WW 9995299
ELLE Group #: 2031387
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	N.D.	0.8	1
10335	Benzene	71-43-2	N.D.	0.2	1
10335	Bromodichloromethane	75-27-4	N.D.	0.2	1
10335	Bromoform	75-25-2	N.D.	2	1
10335	Bromomethane	74-83-9	N.D.	0.5	1
10335	2-Butanone	78-93-3	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	0.2	1
10335	Chloroethane	75-00-3	N.D.	0.3	1
10335	Chloroform	67-66-3	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	0.3	1
10335	Cyclohexane	110-82-7	N.D.	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	1	1
10335	Dibromochloromethane	124-48-1	N.D.	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.3	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	0.2	1
10335	Freon 113	76-13-1	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	Isopropylbenzene	98-82-8	N.D.	0.3	1
10335	Methyl Acetate	79-20-9	N.D.	0.6	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	0.5	1
10335	Methylcyclohexane	108-87-2	N.D.	0.2	1
10335	Methylene Chloride	75-09-2	0.4 J B	0.2	1
10335	Styrene	100-42-5	N.D.	0.2	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	0.2	1
10335	Toluene	108-88-3	N.D.	0.2	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.2	1
10335	Trichloroethene	79-01-6	N.D.	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	0.4	1
10335	Vinyl Chloride	75-01-4	N.D.	0.4	1
10335	Xylene (Total)	1330-20-7	N.D.	0.5	1

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Sample Description: **EB_20190226-02 Grab Water**
PES Reformate GWs

Project Name: **PES Reformate GWs**

Submittal Date/Time: 02/28/2019 12:50
Collection Date/Time: 02/26/2019 14:25

PES c/o Stantec
ELLE Sample #: WW 9995299
ELLE Group #: 2031387
Matrix: Water

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	TCL (4.3) 8260 Water	SW-846 8260B	1	Y190641AA	03/05/2019 11:05	Jennifer K Howe	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y190641AA	03/05/2019 11:04	Jennifer K Howe	1

Sample Description: **TRIP BLANK-2 Water**
PES Reformate GWs

Project Name: **PES Reformate GWs**

Submittal Date/Time: 02/28/2019 12:50
Collection Date/Time: 02/21/2019

PES c/o Stantec
ELLE Sample #: WW 9995300
ELLE Group #: 2031387
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	N.D.	0.8	1
10335	Benzene	71-43-2	N.D.	0.2	1
10335	Bromodichloromethane	75-27-4	N.D.	0.2	1
10335	Bromoform	75-25-2	N.D.	2	1
10335	Bromomethane	74-83-9	N.D.	0.5	1
10335	2-Butanone	78-93-3	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	0.2	1
10335	Chloroethane	75-00-3	N.D.	0.3	1
10335	Chloroform	67-66-3	N.D.	0.2	1
10335	Chloromethane	74-87-3	N.D.	0.3	1
10335	Cyclohexane	110-82-7	N.D.	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	1	1
10335	Dibromochloromethane	124-48-1	N.D.	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.3	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	0.2	1
10335	Freon 113	76-13-1	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	Isopropylbenzene	98-82-8	N.D.	0.3	1
10335	Methyl Acetate	79-20-9	N.D.	0.6	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	0.5	1
10335	Methylcyclohexane	108-87-2	N.D.	0.2	1
10335	Methylene Chloride	75-09-2	0.3 J B	0.2	1
10335	Styrene	100-42-5	N.D.	0.2	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	0.2	1
10335	Toluene	108-88-3	N.D.	0.2	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.2	1
10335	Trichloroethene	79-01-6	N.D.	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	0.4	1
10335	Vinyl Chloride	75-01-4	N.D.	0.4	1
10335	Xylene (Total)	1330-20-7	N.D.	0.5	1

Sample Description: **TRIP BLANK-2 Water**
PES Reformate GWs

Project Name: **PES Reformate GWs**

Submittal Date/Time: 02/28/2019 12:50
Collection Date/Time: 02/21/2019

PES c/o Stantec
ELLE Sample #: WW 9995300
ELLE Group #: 2031387
Matrix: Water

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	TCL (4.3) 8260 Water	SW-846 8260B	1	Y190641AA	03/05/2019 11:27	Jennifer K Howe	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y190641AA	03/05/2019 11:26	Jennifer K Howe	1

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Quality Control Summary

Client Name: PES c/o Stantec
Reported: 03/07/2019 13:40

Group Number: 2031387

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	ug/l	ug/l
Batch number: Y190641AA	Sample number(s): 9995291-9995300	
Acetone	N.D.	0.8
Benzene	N.D.	0.2
Bromodichloromethane	N.D.	0.2
Bromoform	N.D.	2
Bromomethane	N.D.	0.5
2-Butanone	N.D.	1
Carbon Disulfide	N.D.	0.3
Carbon Tetrachloride	N.D.	0.2
Chlorobenzene	N.D.	0.2
Chloroethane	N.D.	0.3
Chloroform	N.D.	0.2
Chloromethane	N.D.	0.3
Cyclohexane	N.D.	2
1,2-Dibromo-3-chloropropane	N.D.	1
Dibromochloromethane	N.D.	0.4
1,2-Dibromoethane	N.D.	0.3
1,2-Dichlorobenzene	N.D.	0.2
1,3-Dichlorobenzene	N.D.	0.2
1,4-Dichlorobenzene	N.D.	0.2
Dichlorodifluoromethane	N.D.	0.3
1,1-Dichloroethane	N.D.	0.2
1,2-Dichloroethane	N.D.	2
1,1-Dichloroethene	N.D.	0.2
cis-1,2-Dichloroethene	N.D.	0.2
trans-1,2-Dichloroethene	N.D.	0.2
1,2-Dichloropropane	N.D.	0.2
cis-1,3-Dichloropropene	N.D.	0.2
trans-1,3-Dichloropropene	N.D.	0.2
Ethylbenzene	N.D.	0.2
Freon 113	N.D.	2
2-Hexanone	N.D.	3
Isopropylbenzene	N.D.	0.3
Methyl Acetate	N.D.	0.6
Methyl Tertiary Butyl Ether	N.D.	0.2
4-Methyl-2-pentanone	N.D.	0.5
Methylcyclohexane	N.D.	0.2
Methylene Chloride	0.2 J	0.2
Styrene	N.D.	0.2
1,1,2,2-Tetrachloroethane	N.D.	0.2

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: PES c/o Stantec
Reported: 03/07/2019 13:40

Group Number: 2031387

Method Blank (continued)

Analysis Name	Result	MDL
	ug/l	ug/l
Tetrachloroethene	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trichlorobenzene	N.D.	0.4
1,1,1-Trichloroethane	N.D.	0.2
1,1,2-Trichloroethane	N.D.	0.2
Trichloroethene	N.D.	0.2
Trichlorofluoromethane	N.D.	0.4
Vinyl Chloride	N.D.	0.4
Xylene (Total)	N.D.	0.5

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: Y190641AA	Sample number(s): 9995291-9995300								
Acetone	150	156.42	150	158.3	104	106	54-157	1	30
Benzene	20	21.8	20	21.59	109	108	80-120	1	30
Bromodichloromethane	20	20.43	20	20.49	102	102	71-120	0	30
Bromoform	20	18.53	20	18.17	93	91	51-120	2	30
Bromomethane	20	15.12	20	14.87	76	74	53-128	2	30
2-Butanone	150	142.08	150	143.8	95	96	59-135	1	30
Carbon Disulfide	20	21.04	20	20.66	105	103	65-128	2	30
Carbon Tetrachloride	20	20.99	20	20.68	105	103	64-134	1	30
Chlorobenzene	20	21.45	20	21.33	107	107	80-120	1	30
Chloroethane	20	16.35	20	16.36	82	82	55-123	0	30
Chloroform	20	21.39	20	21.03	107	105	80-120	2	30
Chloromethane	20	17.43	20	17.14	87	86	56-121	2	30
Cyclohexane	20	19.72	20	19.6	99	98	68-126	1	30
1,2-Dibromo-3-chloropropane	20	19.67	20	19.82	98	99	47-131	1	30
Dibromochloromethane	20	20.13	20	19.82	101	99	71-120	2	30
1,2-Dibromoethane	20	21.04	20	20.97	105	105	77-120	0	30
1,2-Dichlorobenzene	20	21.74	20	21.56	109	108	80-120	1	30
1,3-Dichlorobenzene	20	21.61	20	21.4	108	107	80-120	1	30
1,4-Dichlorobenzene	20	21.92	20	21.59	110	108	80-120	2	30
Dichlorodifluoromethane	20	14	20	13.88	70	69	41-127	1	30
1,1-Dichloroethane	20	21.15	20	20.98	106	105	80-120	1	30
1,2-Dichloroethane	20	20.02	20	20.11	100	101	73-124	0	30
1,1-Dichloroethene	20	23.56	20	23.38	118	117	80-131	1	30
cis-1,2-Dichloroethene	20	22.39	20	21.98	112	110	80-120	2	30
trans-1,2-Dichloroethene	20	22.54	20	22.29	113	111	80-120	1	30
1,2-Dichloropropane	20	21.8	20	22.01	109	110	80-120	1	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: PES c/o Stantec
Reported: 03/07/2019 13:40

Group Number: 2031387

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
cis-1,3-Dichloropropene	20	20.34	20	20.37	102	102	75-120	0	30
trans-1,3-Dichloropropene	20	19.54	20	19.43	98	97	67-120	1	30
Ethylbenzene	20	21.11	20	20.81	106	104	80-120	1	30
Freon 113	20	22.47	20	22.3	112	111	73-139	1	30
2-Hexanone	100	96.08	100	95.41	96	95	56-135	1	30
Isopropylbenzene	20	20.89	20	20.62	104	103	80-120	1	30
Methyl Acetate	20	19.69	20	19.7	98	98	54-136	0	30
Methyl Tertiary Butyl Ether	20	19.55	20	19.62	98	98	69-122	0	30
4-Methyl-2-pentanone	100	93.6	100	93.22	94	93	62-133	0	30
Methylcyclohexane	20	18.45	20	18.43	92	92	67-121	0	30
Methylene Chloride	20	22.58	20	22.03	113	110	80-120	2	30
Styrene	20	21.08	20	20.76	105	104	80-120	2	30
1,1,2,2-Tetrachloroethane	20	21.56	20	21.62	108	108	72-120	0	30
Tetrachloroethene	20	21.08	20	21.05	105	105	80-120	0	30
Toluene	20	21.39	20	21.04	107	105	80-120	2	30
1,2,4-Trichlorobenzene	20	20.44	20	20.37	102	102	63-120	0	30
1,1,1-Trichloroethane	20	20.63	20	20.84	103	104	67-126	1	30
1,1,2-Trichloroethane	20	22.12	20	22.14	111	111	80-120	0	30
Trichloroethene	20	21.51	20	21.52	108	108	80-120	0	30
Trichlorofluoromethane	20	17.72	20	17.07	89	85	55-135	4	30
Vinyl Chloride	20	17.33	20	17.04	87	85	56-120	2	30
Xylene (Total)	60	63.54	60	62.69	106	104	80-120	1	30

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: TCL (4.3) 8260 Water
Batch number: Y190641AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9995291	108	114	103	98
9995292	111	113	102	96
9995293	103	110	108	99
9995294	109	114	102	99
9995295	103	108	106	100
9995296	107	111	103	96
9995297	103	110	106	103
9995298	108	112	103	97
9995299	110	114	103	97
9995300	109	112	103	97
Blank	106	112	104	100

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: PES c/o Stantec
Reported: 03/07/2019 13:40

Group Number: 2031387

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: TCL (4.3) 8260 Water
Batch number: Y190641AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
LCS	105	110	106	106
LCSD	104	109	106	105
Limits:	80-120	80-120	80-120	80-120

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Environmental Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories Environmental use only

Acct. # 42093 Group # 2031387 Sample # 9995-291-3000

COC # 565907

Client Information

Client: Stantec

Acct. #: PES

Project Name/#: 213405039 PES Reformat ~~Andrew Kilhgbeil~~ GWS

PWSID #:

Project Manager: Andrew Kilhgbeil

P.O. #: 213403039

Sampler: Ian Andree / Dane Hopkins

Quote #:

State where samples were collected: PA

For Compliance: Yes ☐ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ | Water ☒ Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: equipment blank / trip blank

Analysis Requested

Preservation and Filtration Codes

For Lab Use Only

FSC:

SCR#:

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Water	Other	Total # of Containers	#	VOCs 8260	Remarks
C-129D-20190226	2/26/19	0911	X			X		3		X	
S-280D-20190226	2/26/19	1015	X			X		3		X	
S-284D-20190226	2/26/19	1059	X			X		3		X	
S-69D-20190226	2/26/19	1155	X			X		3		X	
C-174-20190226	2/26/19	1232	X			X		3		X	
BF-103R-20190226	2/26/19	1330	X			X		3		X	
S-413-20190226	2/26/19	1410	X			X		3		X	
EB-20190226-01	2/26/19	1420	X			X	X	3		X	
EB-20190226-02	2/26/19	1425	X			X	X	3		X	
TRIP BLANK-2	2/2/19	—	X				X	2		X	

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: andrew.kilhgbeil@stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)

Type III (Reduced non-CLP) NJ DKQP TX TRRP-13

NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
	2.25.19	1121		2.25.19	1121
	2.25.19	1250			
				2/28/19	12:50

EDD Required? Yes No

If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____

Temperature upon receipt 1.1 °C

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Sample Administration Receipt Documentation Log

Doc Log ID: 242347

Group Number(s): 2031387

Client: Stantec

Delivery and Receipt Information

Delivery Method:	ELLE Courier	Arrival Timestamp:	02/28/2019 12:50
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	Pennsylvania		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	VOA Vial Headspace ≥ 6mm:	No
Paperwork Enclosed:	Yes	Total Trip Blank Qty:	6
Samples Intact:	Yes	Trip Blank Type:	HCL
Missing Samples:	No	Air Quality Samples Present:	No
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Juan Carrion (16518) at 15:58 on 02/28/2019

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT42-03	1.1	DT	Wet	Y	Bagged	N

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report
B	Detection in the Blank
Q0	LCS/LCSD Low
Q1	LCS/LCSD High
Q2	MS/MSD Low
Q3	MS/MSD High
Q7	LCS/LCSD RPD
Q8	DUP RPD
Q9	MS/MSD RPD

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

Report Date: April 29, 2019 12:15

Project: PHL Refinery Penrose Sys. Perimeter

Account #: 16657
Group Number: 2040606
PO Number: 213402429
State of Sample Origin: PA

Electronic Copy To	Evergreen c/o Stantec	Attn: Andrew Bradley
Electronic Copy To	Evergreen c/o Stantec	Attn: Jennifer Menges

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
S-239_20190423 Grab Groundwater	04/23/2019 12:20	1042259
S-243_20190423 Grab Groundwater	04/23/2019 13:05	1042260
S-224_20190423 Grab Groundwater	04/23/2019 13:40	1042261
S-223_20190423 Grab Groundwater	04/23/2019 14:15	1042262

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Sample Description: **S-239_20190423 Grab Groundwater**
PHL Refinery Penrose Sys. Perimeter

Project Name: **PHL Refinery Penrose Sys. Perimeter**

Submittal Date/Time: 04/24/2019 15:16
Collection Date/Time: 04/23/2019 12:20

Evergreen c/o Stantec
ELLE Sample #: GW 1042259
ELLE Group #: 2040606
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
Trip blank vials were not received by the laboratory for this sample group.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/TBA 8260	SW-846 8260B	1	F191162AA	04/27/2019 02:15	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191162AA	04/27/2019 02:14	Hu Yang	1

Sample Description: **S-243_20190423 Grab Groundwater**
PHL Refinery Penrose Sys. Perimeter

Project Name: **PHL Refinery Penrose Sys. Perimeter**

Submittal Date/Time: 04/24/2019 15:16
Collection Date/Time: 04/23/2019 13:05

Evergreen c/o Stantec
ELLE Sample #: GW 1042260
ELLE Group #: 2040606
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	Ethylbenzene	100-41-4	1 J	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	Xylene (Total)	1330-20-7	2 J	0.5	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
Trip blank vials were not received by the laboratory for this sample group.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/TBA 8260	SW-846 8260B	1	F191162AA	04/27/2019 02:37	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191162AA	04/27/2019 02:36	Hu Yang	1

Sample Description: **S-224_20190423 Grab Groundwater**
PHL Refinery Penrose Sys. Perimeter

Project Name: **PHL Refinery Penrose Sys. Perimeter**

Submittal Date/Time: 04/24/2019 15:16
Collection Date/Time: 04/23/2019 13:40

Evergreen c/o Stantec
ELLE Sample #: GW 1042261
ELLE Group #: 2040606
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	88	1	5
10945	t-Butyl alcohol	75-65-0	270	50	5
10945	Ethylbenzene	100-41-4	7	1	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	5
10945	Toluene	108-88-3	16	1	5
10945	Xylene (Total)	1330-20-7	120	3	5

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
Trip blank vials were not received by the laboratory for this sample group.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/TBA 8260	SW-846 8260B	1	F191162AA	04/27/2019 03:00	Hu Yang	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191162AA	04/27/2019 02:59	Hu Yang	5

Sample Description: **S-223_20190423 Grab Groundwater**
PHL Refinery Penrose Sys. Perimeter

Project Name: **PHL Refinery Penrose Sys. Perimeter**

Submittal Date/Time: 04/24/2019 15:16
Collection Date/Time: 04/23/2019 14:15

Evergreen c/o Stantec
ELLE Sample #: GW 1042262
ELLE Group #: 2040606
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	1,200	2	10
10945	t-Butyl alcohol	75-65-0	N.D.	100	10
10945	Ethylbenzene	100-41-4	310	2	10
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	2	10
10945	Toluene	108-88-3	92	2	10
10945	Xylene (Total)	1330-20-7	1,100	5	10

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
Trip blank vials were not received by the laboratory for this sample group.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/TBA 8260	SW-846 8260B	1	F191162AA	04/27/2019 03:44	Hu Yang	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191162AA	04/27/2019 03:43	Hu Yang	10

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Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 04/29/2019 12:15

Group Number: 2040606

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	ug/l	ug/l
Batch number: F191162AA	Sample number(s): 1042259-1042262	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
Ethylbenzene	N.D.	0.2
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
Xylene (Total)	N.D.	0.5

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F191162AA	Sample number(s): 1042259-1042262								
Benzene	20	21.02			105		80-120		
t-Butyl alcohol	200	181.18			91		60-130		
Ethylbenzene	20	20.88			104		80-120		
Methyl Tertiary Butyl Ether	20	20.25			101		69-122		
Toluene	20	21.47			107		80-120		
Xylene (Total)	60	61.54			103		80-120		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: F191162AA	Sample number(s): 1042259-1042262 UNSPK: P038961									
Benzene	N.D.	20	21.86	20	22.23	109	111	80-120	2	30
t-Butyl alcohol	N.D.	200	176.44	200	180.19	88	90	60-130	2	30
Ethylbenzene	N.D.	20	21.63	20	21.7	108	109	80-120	0	30
Methyl Tertiary Butyl Ether	N.D.	20	20.43	20	20.63	102	103	69-122	1	30
Toluene	N.D.	20	22.55	20	22.56	113	113	80-120	0	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

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Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 04/29/2019 12:15

Group Number: 2040606

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Xylene (Total)	N.D.	60	64.16	60	65.14	107	109	80-120	2	30

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX/MTBE/TBA 8260
Batch number: F191162AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1042259	93	99	102	97
1042260	93	95	104	99
1042261	91	97	104	101
1042262	94	95	104	99
Blank	93	96	102	97
LCS	93	97	104	99
MS	93	99	102	99
MSD	91	101	103	99
Limits:	80-120	80-120	80-120	80-120

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Environmental Analysis Request/Chain of Custody

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Acct. # 16657 Group # 2040606 Sample # 1042259-62

COC # 574001

Client Information

Client: Stantec	Acct. #: Evergreen
Project Name/#: PHL Refinery Penrose Sys. Perimeter	PWSID #: GWS
Project Manager: Andy Bradley / Jennifer Menges	P.O. #: 213402429
Sampler: Vince Brinkmeyer	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: ____

Analysis Requested

Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Water	Other	Total # of Containers	BTEX 8260 (H)	MTBE/TBA (H)
S-239_20190423	4/23/19	1220	X			X		3	X	X
S-243_20190423	↓	1305	X			X		3	X	X
S-224_20190423	↓	1340	X			X		3	X	X
S-223_20190423	↓	1415	X			X		3	X	X

For Lab Use Only

FSC: ____

SCR#: 239996

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: ____

E-mail address: jennifer.menges@stantec.com andrew.bradley@stantec.com

Relinquished by	Date	Time	Received by	Date	Time
Amanda Demarco	3.28.19	13:23	[signature]	3/28/19	1323
[signature]	4.24.19	1130	[signature]	4.24.19	1130
[signature]	4.24.19	15:16			
			[signature]	4-24-19	1516

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)

Type III (Reduced non-CLP) NJ DKQP TX TRRP-13

NYSDEC Category A or B MA MCP CT RCP

EDD Required? Yes No

If yes, format: EQUIS

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other ____

Temperature upon receipt 1.2 °C

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The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0718

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Sample Administration Receipt Documentation Log

Doc Log ID: 247212

Group Number(s):

Client: Stantec

2048006

Delivery and Receipt Information

Delivery Method:	ELLE Courier	Arrival Timestamp:	04/24/2019 15:16
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	PA		

Arrival Condition Summary

Shipping Container Sealed:	No	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	VOA Vial Headspace ≥ 6mm:	No
Paperwork Enclosed:	Yes	Total Trip Blank Qty:	0
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Cory Jeremiah (10469) at 20:07 on 04/24/2019

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT146	1.2	DT	Wet	Y	Bagged	N

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Lancaster, PA 17605-2425
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F 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

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BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
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E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
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K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report
B	Detection in the Blank
Q0	LCS/LCSD Low
Q1	LCS/LCSD High
Q2	MS/MSD Low
Q3	MS/MSD High
Q7	LCS/LCSD RPD
Q8	DUP RPD
Q9	MS/MSD RPD

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

Report Date: July 02, 2019 16:21

Project: 2019 Annual GWS PHL

Account #: 16657
Group Number: 2049839
PO Number: 213402429
State of Sample Origin: PA

Electronic Copy To	Evergreen c/o Stantec	Attn: Jennifer Menges
Electronic Copy To	Evergreen c/o Stantec	Attn: Andrew Bradley

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

To view our laboratory's current scopes of accreditation please go to https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/ . Historical copies may be requested through your project manager.



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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
S-302D_20190617 Grab Groundwater	06/17/2019 10:00	1084917
DUP-1 Grab Groundwater	06/17/2019 10:00	1084918
S-72D_20190617 Grab Groundwater	06/17/2019 11:15	1084919
S-294D_20190617 Grab Groundwater	06/17/2019 12:00	1084920
S-294_20190617 Grab Groundwater	06/17/2019 13:00	1084921
S-354_20190617 Grab Groundwater	06/17/2019 14:00	1084922
S-425_20190618 Grab Groundwater	06/18/2019 09:40	1084923
S-427_20190618 Grab Groundwater	06/18/2019 10:30	1084924
S-422_20190618 Grab Groundwater	06/18/2019 12:00	1084925
S-71_20190618 Grab Groundwater	06/18/2019 12:30	1084926
S-399_20190617 Grab Groundwater	06/17/2019 10:20	1084927
S-42I_20190617 Grab Groundwater	06/17/2019 11:25	1084928
S-87I_20190617 Grab Groundwater	06/17/2019 13:15	1084929
S-388D_20190617 Grab Groundwater	06/17/2019 14:05	1084930
S-398_20190618 Grab Groundwater	06/18/2019 09:30	1084931
S-273_20190618 Grab Groundwater	06/18/2019 10:25	1084932
S-271_20190618 Grab Groundwater	06/18/2019 11:10	1084933
S-44_20190618 Grab Groundwater	06/18/2019 13:05	1084934
S-306_20190618 Grab Groundwater	06/18/2019 13:15	1084935
TB_20190618 Water	06/05/2019	1084936
FB_20190618 Grab Water	06/18/2019 14:10	1084937

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Sample Description: **S-302D_20190617 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/19/2019 16:15
Collection Date/Time: 06/17/2019 10:00

Evergreen c/o Stantec
ELLE Sample #: GW 1084917
ELLE Group #: 2049839
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	400	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	2	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	0.5	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was filtered in the field for dissolved metals..

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191792AA	06/28/2019 11:26	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191792AA	06/28/2019 11:25	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19171WAU026	06/27/2019 00:40	Brandon K Cordova	1
07807	BNA Water Extraction	SW-846 3510C	1	19171WAU026	06/21/2019 09:00	Logan M Brosemer	1
10398	EDB in Wastewater	SW-846 8011	1	191710032A	06/21/2019 14:06	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	191710032A	06/21/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191721404705A	06/26/2019 04:41	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191721404705	06/24/2019 14:40	JoElla L Rice	1

Sample Description: **DUP-1 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/19/2019 16:15
Collection Date/Time: 06/17/2019 10:00

Evergreen c/o Stantec
ELLE Sample #: GW 1084918
ELLE Group #: 2049839
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	450	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	3	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.09	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.09	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.09	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.09	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.09	1
14249	Chrysene	218-01-9	N.D.	0.09	1
14249	Fluorene	86-73-7	N.D.	0.09	1
14249	Naphthalene	91-20-3	N.D.	0.09	1
14249	Phenanthrene	85-01-8	N.D.	0.09	1
14249	Pyrene	129-00-0	0.5	0.09	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was filtered in the field for dissolved metals..

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191792AA	06/28/2019 11:48	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191792AA	06/28/2019 11:47	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19171WAU026	06/27/2019 01:10	Brandon K Cordova	1
07807	BNA Water Extraction	SW-846 3510C	1	19171WAU026	06/21/2019 09:00	Logan M Brosemer	1
10398	EDB in Wastewater	SW-846 8011	1	191710032A	06/21/2019 14:21	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	191710032A	06/21/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191721404705A	06/26/2019 04:34	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191721404705	06/24/2019 14:40	JoElla L Rice	1

Sample Description: **S-72D_20190617 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/19/2019 16:15
Collection Date/Time: 06/17/2019 11:15

Evergreen c/o Stantec
ELLE Sample #: GW 1084919
ELLE Group #: 2049839
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	3	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.09	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.09	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.09	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.09	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.09	1
14249	Chrysene	218-01-9	N.D.	0.09	1
14249	Fluorene	86-73-7	N.D.	0.09	1
14249	Naphthalene	91-20-3	N.D.	0.09	1
14249	Phenanthrene	85-01-8	N.D.	0.09	1
14249	Pyrene	129-00-0	N.D.	0.09	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was filtered in the field for dissolved metals..

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191792AA	06/28/2019 12:11	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191792AA	06/28/2019 12:10	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19171WAU026	06/27/2019 01:40	Brandon K Cordova	1
07807	BNA Water Extraction	SW-846 3510C	1	19171WAU026	06/21/2019 09:00	Logan M Brosemer	1
10398	EDB in Wastewater	SW-846 8011	1	191710032A	06/21/2019 14:37	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	191710032A	06/21/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191721404704A	06/26/2019 03:09	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191721404704	06/21/2019 16:10	Barbara A Kane	1

Sample Description: **S-294D_20190617 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/19/2019 16:15
Collection Date/Time: 06/17/2019 12:00

Evergreen c/o Stantec
ELLE Sample #: GW 1084920
ELLE Group #: 2049839
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	3	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.09	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.09	1
14249	Benzo(a)pyrene	50-32-8	0.3 J	0.09	1
14249	Benzo(b)fluoranthene	205-99-2	0.6	0.09	1
14249	Benzo(g,h,i)perylene	191-24-2	0.3 J	0.09	1
14249	Chrysene	218-01-9	0.4 J	0.09	1
14249	Fluorene	86-73-7	N.D.	0.09	1
14249	Naphthalene	91-20-3	N.D.	0.09	1
14249	Phenanthrene	85-01-8	0.3 J	0.09	1
14249	Pyrene	129-00-0	0.6	0.09	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was filtered in the field for dissolved metals..

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191792AA	06/28/2019 13:17	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191792AA	06/28/2019 13:16	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19171WAU026	06/27/2019 02:10	Brandon K Cordova	1
07807	BNA Water Extraction	SW-846 3510C	1	19171WAU026	06/21/2019 09:00	Logan M Brosemer	1
10398	EDB in Wastewater	SW-846 8011	1	191710032A	06/21/2019 14:53	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	191710032A	06/21/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191721404704A	06/26/2019 03:34	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191721404704	06/21/2019 16:10	Barbara A Kane	1

Sample Description: S-294_20190617 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/19/2019 16:15
Collection Date/Time: 06/17/2019 13:00

Evergreen c/o Stantec
ELLE Sample #: GW 1084921
ELLE Group #: 2049839
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	49	0.2	1
10945	t-Butyl alcohol	75-65-0	91	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	260	2	10
10945	Isopropylbenzene	98-82-8	140	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	2	0.2	1
10945	Toluene	108-88-3	6	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	240	3	10
10945	1,3,5-Trimethylbenzene	108-67-8	84	0.3	1
10945	Xylene (Total)	1330-20-7	320	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	21	0.09	1
14249	Benzo(a)anthracene	56-55-3	3	0.09	1
14249	Benzo(a)pyrene	50-32-8	2	0.09	1
14249	Benzo(b)fluoranthene	205-99-2	3	0.09	1
14249	Benzo(g,h,i)perylene	191-24-2	0.9	0.09	1
14249	Chrysene	218-01-9	4	0.09	1
14249	Fluorene	86-73-7	82	0.09	1
14249	Naphthalene	91-20-3	3,000	5	50
14249	Phenanthrene	85-01-8	110	0.09	1
14249	Pyrene	129-00-0	16	0.09	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was filtered in the field for dissolved metals..

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191792AA	06/28/2019 13:39	Alexander D Sechrist	1
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191794AA	06/29/2019 05:57	Hu Yang	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191792AA	06/28/2019 13:38	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F191794AA	06/29/2019 05:56	Hu Yang	10
14249	PAHs 8270C MINI	SW-846 8270C	1	19171WAU026	06/27/2019 02:40	Brandon K Cordova	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19171WAU026	06/27/2019 11:51	Kira N Beck	50
07807	BNA Water Extraction	SW-846 3510C	1	19171WAU026	06/21/2019 09:00	Logan M Brosemer	1
10398	EDB in Wastewater	SW-846 8011	1	191710032A	06/21/2019 15:09	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	191710032A	06/21/2019 05:00	Mathias Okpo	1

Sample Description: **S-294_20190617 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/19/2019 16:15
Collection Date/Time: 06/17/2019 13:00

Evergreen c/o Stantec
ELLE Sample #: GW 1084921
ELLE Group #: 2049839
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	191721404704A	06/26/2019 03:23	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191721404704	06/21/2019 16:10	Barbara A Kane	1

Sample Description: S-354_20190617 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/19/2019 16:15
Collection Date/Time: 06/17/2019 14:00

Evergreen c/o Stantec
ELLE Sample #: GW 1084922
ELLE Group #: 2049839
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	0.3 J	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	0.8 J	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	0.4 J	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	0.2 J	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	0.5	0.1	1
14249	Naphthalene	91-20-3	6	0.1	1
14249	Phenanthrene	85-01-8	0.9	0.1	1
14249	Pyrene	129-00-0	0.4 J	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was filtered in the field for dissolved metals..

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191792AA	06/28/2019 14:01	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191792AA	06/28/2019 14:00	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19171WAU026	06/27/2019 03:10	Brandon K Cordova	1
07807	BNA Water Extraction	SW-846 3510C	1	19171WAU026	06/21/2019 09:00	Logan M Brosemer	1
10398	EDB in Wastewater	SW-846 8011	1	191710032A	06/21/2019 12:31	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	191710032A	06/21/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191721404704A	06/26/2019 03:05	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191721404704	06/21/2019 16:10	Barbara A Kane	1

Sample Description: **S-425_20190618 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/19/2019 16:15
Collection Date/Time: 06/18/2019 09:40

Evergreen c/o Stantec
ELLE Sample #: GW 1084923
ELLE Group #: 2049839
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.2 J	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	0.6	0.1	1
14249	Benzo(a)anthracene	56-55-3	0.6	0.1	1
14249	Benzo(a)pyrene	50-32-8	0.7	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	0.7	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	0.4 J	0.1	1
14249	Chrysene	218-01-9	0.9	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	0.4 J	0.1	1
14249	Phenanthrene	85-01-8	0.7	0.1	1
14249	Pyrene	129-00-0	1	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0096	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was filtered in the field for dissolved metals..

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191812AA	06/30/2019 17:14	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191812AA	06/30/2019 17:13	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19171WAU026	06/27/2019 03:40	Brandon K Cordova	1
07807	BNA Water Extraction	SW-846 3510C	1	19171WAU026	06/21/2019 09:00	Logan M Brosemer	1
10398	EDB in Wastewater	SW-846 8011	1	191710032A	06/21/2019 13:02	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	191710032A	06/21/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191721404704A	06/26/2019 03:41	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191721404704	06/21/2019 16:10	Barbara A Kane	1

Sample Description: **S-427_20190618 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/19/2019 16:15
Collection Date/Time: 06/18/2019 10:30

Evergreen c/o Stantec
ELLE Sample #: GW 1084924
ELLE Group #: 2049839
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	0.3 J	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	11	0.1	1
14249	Benzo(a)anthracene	56-55-3	0.8	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	1	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	5	0.1	1
14249	Pyrene	129-00-0	8	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was filtered in the field for dissolved metals..

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191812AA	06/30/2019 17:36	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191812AA	06/30/2019 17:35	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19171WAU026	06/27/2019 04:10	Brandon K Cordova	1
07807	BNA Water Extraction	SW-846 3510C	1	19171WAU026	06/21/2019 09:00	Logan M Brosemer	1
10398	EDB in Wastewater	SW-846 8011	1	191710032A	06/21/2019 15:25	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	191710032A	06/21/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191721404705A	06/26/2019 04:46	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191721404705	06/24/2019 14:40	JoElla L Rice	1

Sample Description: **S-422_20190618 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/19/2019 16:15
Collection Date/Time: 06/18/2019 12:00

Evergreen c/o Stantec
ELLE Sample #: GW 1084925
ELLE Group #: 2049839
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was filtered in the field for dissolved metals..

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191812AA	06/30/2019 18:42	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191812AA	06/30/2019 18:41	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19171WAU026	06/27/2019 04:40	Brandon K Cordova	1
07807	BNA Water Extraction	SW-846 3510C	1	19171WAU026	06/21/2019 09:00	Logan M Brosemer	1
10398	EDB in Wastewater	SW-846 8011	1	191710032A	06/21/2019 15:40	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	191710032A	06/21/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191721404705A	06/26/2019 04:53	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191721404705	06/24/2019 14:40	JoElla L Rice	1

Sample Description: S-71_20190618 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/19/2019 16:15
Collection Date/Time: 06/18/2019 12:30

Evergreen c/o Stantec
ELLE Sample #: GW 1084926
ELLE Group #: 2049839
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	1	0.2	1
10945	t-Butyl alcohol	75-65-0	390	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	0.3 J	0.2	1
10945	Isopropylbenzene	98-82-8	19	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	25	0.2	1
10945	Toluene	108-88-3	0.5 J	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	0.4 J	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	3 J	0.5	1
	The requirement for no headspace at the time of analysis was not met. The container used for the testing had headspace at the time of analysis.				
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	0.2 J	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	2	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	1	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was filtered in the field for dissolved metals..

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191812AA	06/30/2019 19:04	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191812AA	06/30/2019 19:03	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19171WAU026	06/27/2019 05:09	Brandon K Cordova	1
07807	BNA Water Extraction	SW-846 3510C	1	19171WAU026	06/21/2019 09:00	Logan M Brosemer	1
10398	EDB in Wastewater	SW-846 8011	1	191710032A	06/21/2019 15:56	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	191710032A	06/21/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191721404704A	06/26/2019 02:58	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191721404704	06/21/2019 16:10	Barbara A Kane	1

Sample Description: S-399_20190617 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/19/2019 16:15
Collection Date/Time: 06/17/2019 10:20

Evergreen c/o Stantec
ELLE Sample #: GW 1084927
ELLE Group #: 2049839
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	0.4 J	0.2	1
10945	t-Butyl alcohol	75-65-0	1,600	100	10
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	0.6 J	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	19	0.2	1
10945	Toluene	108-88-3	0.2 J	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.09	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.09	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.09	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.09	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.09	1
14249	Chrysene	218-01-9	N.D.	0.09	1
14249	Fluorene	86-73-7	N.D.	0.09	1
14249	Naphthalene	91-20-3	N.D.	0.09	1
14249	Phenanthrene	85-01-8	0.1 J	0.09	1
14249	Pyrene	129-00-0	N.D.	0.09	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was filtered in the field for dissolved metals..

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191792AA	06/28/2019 14:23	Alexander D Sechrist	1
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191794AA	06/29/2019 06:19	Hu Yang	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191792AA	06/28/2019 14:22	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F191794AA	06/29/2019 06:18	Hu Yang	10
14249	PAHs 8270C MINI	SW-846 8270C	1	19171WAU026	06/27/2019 05:39	Brandon K Cordova	1
07807	BNA Water Extraction	SW-846 3510C	1	19171WAU026	06/21/2019 09:00	Logan M Brosemer	1
10398	EDB in Wastewater	SW-846 8011	1	191710032A	06/21/2019 16:12	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	191710032A	06/21/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191721404704A	06/26/2019 03:27	Bradley M Berlot	1

Sample Description: **S-399_20190617 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/19/2019 16:15
Collection Date/Time: 06/17/2019 10:20

Evergreen c/o Stantec
ELLE Sample #: GW 1084927
ELLE Group #: 2049839
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191721404704	06/21/2019 16:10	Barbara A Kane	1

Sample Description: **S-42I_20190617 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/19/2019 16:15
Collection Date/Time: 06/17/2019 11:25

Evergreen c/o Stantec
ELLE Sample #: GW 1084928
ELLE Group #: 2049839
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	0.5 J	0.2	1
10945	t-Butyl alcohol	75-65-0	38	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	0.7 J	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	7	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.09	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.09	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.09	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.09	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.09	1
14249	Chrysene	218-01-9	N.D.	0.09	1
14249	Fluorene	86-73-7	N.D.	0.09	1
14249	Naphthalene	91-20-3	N.D.	0.09	1
14249	Phenanthrene	85-01-8	N.D.	0.09	1
14249	Pyrene	129-00-0	N.D.	0.09	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was filtered in the field for dissolved metals..

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/TMBs	SW-846 8260B	1	F191792AA	06/28/2019 14:45	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191792AA	06/28/2019 14:44	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19171WAU026	06/27/2019 12:21	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19171WAU026	06/21/2019 09:00	Logan M Brosemer	1
10398	EDB in Wastewater	SW-846 8011	1	191710032A	06/21/2019 16:28	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	191710032A	06/21/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191721404704A	06/26/2019 03:01	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191721404704	06/21/2019 16:10	Barbara A Kane	1

Sample Description: S-87I_20190617 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/19/2019 16:15
Collection Date/Time: 06/17/2019 13:15

Evergreen c/o Stantec
ELLE Sample #: GW 1084929
ELLE Group #: 2049839
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	0.2 J	0.2	1
10945	t-Butyl alcohol	75-65-0	180,000	5,000	500
10945	1,2-Dichloroethane	107-06-2	3 J	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	380	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.09	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.09	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.09	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.09	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.09	1
14249	Chrysene	218-01-9	N.D.	0.09	1
14249	Fluorene	86-73-7	N.D.	0.09	1
14249	Naphthalene	91-20-3	N.D.	0.09	1
14249	Phenanthrene	85-01-8	N.D.	0.09	1
14249	Pyrene	129-00-0	N.D.	0.09	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was filtered in the field for dissolved metals..

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191792AA	06/28/2019 15:07	Alexander D Sechrist	1
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191794AA	06/29/2019 06:41	Hu Yang	500
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191792AA	06/28/2019 15:06	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F191794AA	06/29/2019 06:40	Hu Yang	500
14249	PAHs 8270C MINI	SW-846 8270C	1	19171WAU026	06/27/2019 12:51	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19171WAU026	06/21/2019 09:00	Logan M Brosemer	1
10398	EDB in Wastewater	SW-846 8011	1	191710032A	06/21/2019 17:15	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	191710032A	06/21/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191721404704A	06/26/2019 02:03	Bradley M Berlot	1

Sample Description: **S-87I_20190617 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/19/2019 16:15
Collection Date/Time: 06/17/2019 13:15

Evergreen c/o Stantec
ELLE Sample #: GW 1084929
ELLE Group #: 2049839
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191721404704	06/21/2019 16:10	Barbara A Kane	1

Sample Description: **S-388D_20190617 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/19/2019 16:15
Collection Date/Time: 06/17/2019 14:05

Evergreen c/o Stantec
ELLE Sample #: GW 1084930
ELLE Group #: 2049839
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	1,200	100	10
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	7	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
	Preservation requirements were not met. A preserved vial was submitted for analysis. However, the pH at the time of analysis was 7.				
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was filtered in the field for dissolved metals..

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/TMBs	SW-846 8260B	1	F191792AA	06/28/2019 15:29	Alexander D Sechrist	1
10945	BTEX/MTBE/Cumene/EDC/TBA/TMBs	SW-846 8260B	1	F191812AA	06/30/2019 19:26	Alexander D Sechrist	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191792AA	06/28/2019 15:28	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F191812AA	06/30/2019 19:25	Alexander D Sechrist	10
14249	PAHs 8270C MINI	SW-846 8270C	1	19171WAU026	06/27/2019 13:21	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19171WAU026	06/21/2019 09:00	Logan M Brosemer	1

Sample Description: **S-388D_20190617 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/19/2019 16:15
Collection Date/Time: 06/17/2019 14:05

Evergreen c/o Stantec
ELLE Sample #: GW 1084930
ELLE Group #: 2049839
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	EDB in Wastewater	SW-846 8011	1	191710032A	06/21/2019 17:31	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	191710032A	06/21/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191721404705A	06/26/2019 04:18	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191721404705	06/24/2019 14:40	JoElla L Rice	1

Sample Description: S-398_20190618 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/19/2019 16:15
Collection Date/Time: 06/18/2019 09:30

Evergreen c/o Stantec
ELLE Sample #: GW 1084931
ELLE Group #: 2049839
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	31	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	5	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	2	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	0.4 J	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was filtered in the field for dissolved metals..

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191812AA	06/30/2019 19:48	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191812AA	06/30/2019 19:47	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19171WAU026	06/27/2019 13:51	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19171WAU026	06/21/2019 09:00	Logan M Brosemer	1
10398	EDB in Wastewater	SW-846 8011	1	191710032A	06/21/2019 17:47	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	191710032A	06/21/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191721404704A	06/26/2019 03:38	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191721404704	06/21/2019 16:10	Barbara A Kane	1

Sample Description: S-273_20190618 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/19/2019 16:15
Collection Date/Time: 06/18/2019 10:25

Evergreen c/o Stantec
ELLE Sample #: GW 1084932
ELLE Group #: 2049839
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	330	2	10
10945	t-Butyl alcohol	75-65-0	560	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	16	0.2	1
10945	Isopropylbenzene	98-82-8	21	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	72	0.2	1
10945	Toluene	108-88-3	7	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	4 J	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	7	0.3	1
10945	Xylene (Total)	1330-20-7	81	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	0.3 J	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0096	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was filtered in the field for dissolved metals..

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191812AA	06/30/2019 20:10	Alexander D Sechrist	1
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191823AA	07/02/2019 05:47	Hu Yang	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191812AA	06/30/2019 20:09	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F191823AA	07/02/2019 05:46	Hu Yang	10
14249	PAHs 8270C MINI	SW-846 8270C	1	19171WAU026	06/27/2019 14:21	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19171WAU026	06/21/2019 09:00	Logan M Brosemer	1
10398	EDB in Wastewater	SW-846 8011	1	191710032A	06/21/2019 18:03	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	191710032A	06/21/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191721404705A	06/26/2019 04:32	Choon Y Tian	1

Sample Description: **S-273_20190618 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/19/2019 16:15
Collection Date/Time: 06/18/2019 10:25

Evergreen c/o Stantec
ELLE Sample #: GW 1084932
ELLE Group #: 2049839
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191721404705	06/24/2019 14:40	JoElla L Rice	1

Sample Description: **S-271_20190618 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/19/2019 16:15
Collection Date/Time: 06/18/2019 11:10

Evergreen c/o Stantec
ELLE Sample #: GW 1084933
ELLE Group #: 2049839
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	140	0.2	1
10945	t-Butyl alcohol	75-65-0	2,500	100	10
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	10	0.2	1
10945	Isopropylbenzene	98-82-8	88	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	32	0.2	1
10945	Toluene	108-88-3	33	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	1 J	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	11	0.3	1
10945	Xylene (Total)	1330-20-7	49	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	2	0.1	1
14249	Benzo(a)anthracene	56-55-3	0.3 J	0.1	1
14249	Benzo(a)pyrene	50-32-8	0.2 J	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	0.3 J	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	0.1 J	0.1	1
14249	Chrysene	218-01-9	0.3 J	0.1	1
14249	Fluorene	86-73-7	8	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	8	0.1	1
14249	Pyrene	129-00-0	2	0.1	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following action was taken: The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial.

Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	7.0	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was filtered in the field for dissolved metals..

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/TMBs	SW-846 8260B	1	F191812AA	06/30/2019 20:32	Alexander D Sechrist	1
10945	BTEX/MTBE/Cumene/EDC/TBA/TMBs	SW-846 8260B	1	F191823AA	07/02/2019 06:09	Hu Yang	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191812AA	06/30/2019 20:31	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F191823AA	07/02/2019 06:08	Hu Yang	10
14249	PAHs 8270C MINI	SW-846 8270C	1	19171WAU026	06/27/2019 14:51	Kira N Beck	1

Sample Description: **S-271_20190618 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/19/2019 16:15
Collection Date/Time: 06/18/2019 11:10

Evergreen c/o Stantec
ELLE Sample #: GW 1084933
ELLE Group #: 2049839
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07807	BNA Water Extraction	SW-846 3510C	1	19171WAU026	06/21/2019 09:00	Logan M Brosemer	1
10398	EDB in Wastewater	SW-846 8011	1	191710032A	06/21/2019 18:18	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	191710032A	06/21/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191721404705A	06/26/2019 04:43	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191721404705	06/24/2019 14:40	JoElla L Rice	1

Sample Description: **S-44_20190618 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/19/2019 16:15
Collection Date/Time: 06/18/2019 13:05

Evergreen c/o Stantec
ELLE Sample #: GW 1084934
ELLE Group #: 2049839
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	220	2	10
10945	t-Butyl alcohol	75-65-0	3,000	100	10
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	4	0.2	1
10945	Isopropylbenzene	98-82-8	38	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	84	0.2	1
10945	Toluene	108-88-3	12	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	0.4 J	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	2 J	0.3	1
10945	Xylene (Total)	1330-20-7	19	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	0.1 J	0.09	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.09	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.09	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.09	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.09	1
14249	Chrysene	218-01-9	N.D.	0.09	1
14249	Fluorene	86-73-7	1	0.09	1
14249	Naphthalene	91-20-3	N.D.	0.09	1
14249	Phenanthrene	85-01-8	1	0.09	1
14249	Pyrene	129-00-0	N.D.	0.09	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0096	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was filtered in the field for dissolved metals..

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191812AA	06/30/2019 20:54	Alexander D Sechrist	1
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191823AA	07/02/2019 06:31	Hu Yang	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191812AA	06/30/2019 20:53	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F191823AA	07/02/2019 06:30	Hu Yang	10
14249	PAHs 8270C MINI	SW-846 8270C	1	19171WAU026	06/27/2019 15:21	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19171WAU026	06/21/2019 09:00	Logan M Brosemer	1
10398	EDB in Wastewater	SW-846 8011	1	191710032A	06/21/2019 18:34	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	191710032A	06/21/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191721404704A	06/26/2019 03:30	Bradley M Berlot	1

Sample Description: **S-44_20190618 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/19/2019 16:15
Collection Date/Time: 06/18/2019 13:05

Evergreen c/o Stantec
ELLE Sample #: GW 1084934
ELLE Group #: 2049839
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191721404704	06/21/2019 16:10	Barbara A Kane	1

Sample Description: S-306_20190618 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/19/2019 16:15
Collection Date/Time: 06/18/2019 13:15

Evergreen c/o Stantec
ELLE Sample #: GW 1084935
ELLE Group #: 2049839
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	3	0.2	1
10945	t-Butyl alcohol	75-65-0	10 J	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	2	0.2	1
10945	Isopropylbenzene	98-82-8	33	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	4	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	0.6 J	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	1 J	0.3	1
10945	Xylene (Total)	1330-20-7	8	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	0.7	0.09	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.09	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.09	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.09	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.09	1
14249	Chrysene	218-01-9	N.D.	0.09	1
14249	Fluorene	86-73-7	3	0.09	1
14249	Naphthalene	91-20-3	N.D.	0.09	1
14249	Phenanthrene	85-01-8	4	0.09	1
14249	Pyrene	129-00-0	0.5 J	0.09	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was filtered in the field for dissolved metals..

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191812AA	06/30/2019 21:16	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191812AA	06/30/2019 21:15	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19171WAU026	06/27/2019 15:51	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19171WAU026	06/21/2019 09:00	Logan M Brosemer	1
10398	EDB in Wastewater	SW-846 8011	1	191710032A	06/21/2019 18:50	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	191710032A	06/21/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191721404704A	06/26/2019 03:12	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191721404704	06/21/2019 16:10	Barbara A Kane	1

Sample Description: **TB_20190618 Water**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/19/2019 16:15
Collection Date/Time: 06/05/2019

Evergreen c/o Stantec
ELLE Sample #: GW 1084936
ELLE Group #: 2049839
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dibromoethane	106-93-4	N.D.	0.3	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cum/EDB/EDC/TBA /TMBs	SW-846 8260B	1	F191784AA	06/28/2019 07:18	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191784AA	06/28/2019 07:17	Hu Yang	1

Sample Description: FB_20190618 Grab Water
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/19/2019 16:15
Collection Date/Time: 06/18/2019 14:10

Evergreen c/o Stantec
ELLE Sample #: GW 1084937
ELLE Group #: 2049839
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was filtered in the field for dissolved metals..

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191784AA	06/28/2019 07:40	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191784AA	06/28/2019 07:39	Hu Yang	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19171WAU026	06/27/2019 16:20	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19171WAU026	06/21/2019 09:00	Logan M Brosemer	1
10398	EDB in Wastewater	SW-846 8011	1	191710032A	06/21/2019 19:06	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	191710032A	06/21/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191721404705A	06/26/2019 04:50	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191721404705	06/24/2019 14:40	JoElla L Rice	1

Quality Control Summary

Client Name: Evergreen c/o Stantec
Group Number: 2049839
Reported: 07/02/2019 16:21

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	ug/l	ug/l
Batch number: F191784AA	Sample number(s): 1084936-1084937	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
1,2-Dibromoethane	N.D.	0.3
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.5
Batch number: F191792AA	Sample number(s): 1084917-1084922,1084927-1084930	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.5
Batch number: F191794AA	Sample number(s): 1084921,1084927,1084929	
t-Butyl alcohol	N.D.	10
Ethylbenzene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
Batch number: F191812AA	Sample number(s): 1084923-1084926,1084930-1084935	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.5

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 07/02/2019 16:21

Group Number: 2049839

Method Blank (continued)

Analysis Name	Result ug/l	MDL ug/l
Batch number: F191823AA	Sample number(s): 1084932-1084934	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
Batch number: 19171WAU026	Sample number(s): 1084917-1084935,1084937	
Anthracene	N.D.	0.1
Benzo(a)anthracene	N.D.	0.1
Benzo(a)pyrene	N.D.	0.1
Benzo(b)fluoranthene	N.D.	0.1
Benzo(g,h,i)perylene	N.D.	0.1
Chrysene	N.D.	0.1
Fluorene	N.D.	0.1
Naphthalene	N.D.	0.1
Phenanthrene	N.D.	0.1
Pyrene	N.D.	0.1
Batch number: 191710032A	Sample number(s): 1084917-1084935,1084937	
Ethylene dibromide	N.D.	0.010
Batch number: 191721404704A	Sample number(s): 1084919-1084923,1084926-1084929,1084931,1084934-1084935	
Lead	N.D.	1.1
Batch number: 191721404705A	Sample number(s): 1084917-1084918,1084924-1084925,1084930,1084932-1084933,1084937	
Lead	N.D.	1.1

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F191784AA	Sample number(s): 1084936-1084937								
Benzene	20	20.48	20	20.58	102	103	80-120	0	30
t-Butyl alcohol	200	186.47	200	178.16	93	89	60-130	5	30
1,2-Dibromoethane	20	19.08	20	19.72	95	99	77-120	3	30
1,2-Dichloroethane	20	18.43	20	18.04	92	90	73-124	2	30
Ethylbenzene	20	19.13	20	19.47	96	97	80-120	2	30
Isopropylbenzene	20	19.42	20	19.98	97	100	80-120	3	30
Methyl Tertiary Butyl Ether	20	20.11	20	19.89	101	99	69-122	1	30
Toluene	20	20.36	20	20.88	102	104	80-120	3	30
1,2,4-Trimethylbenzene	20	18.7	20	18.89	93	94	75-120	1	30
1,3,5-Trimethylbenzene	20	18.93	20	18.96	95	95	75-120	0	30
Xylene (Total)	60	60.62	60	60.52	101	101	80-120	0	30
Batch number: F191792AA	Sample number(s): 1084917-1084922,1084927-1084930								

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P####### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 07/02/2019 16:21

Group Number: 2049839

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Benzene	20	21.04			105		80-120		
t-Butyl alcohol	200	188.33			94		60-130		
1,2-Dichloroethane	20	19.29			96		73-124		
Ethylbenzene	20	19.61			98		80-120		
Isopropylbenzene	20	19.49			97		80-120		
Methyl Tertiary Butyl Ether	20	21.28			106		69-122		
Toluene	20	20.52			103		80-120		
1,2,4-Trimethylbenzene	20	18.91			95		75-120		
1,3,5-Trimethylbenzene	20	19.19			96		75-120		
Xylene (Total)	60	60.03			100		80-120		
Batch number: F191794AA	Sample number(s): 1084921,1084927,1084929								
t-Butyl alcohol	200	192.64			96		60-130		
Ethylbenzene	20	19.9			99		80-120		
1,2,4-Trimethylbenzene	20	19.74			99		75-120		
Batch number: F191812AA	Sample number(s): 1084923-1084926,1084930-1084935								
Benzene	20	21.03			105		80-120		
t-Butyl alcohol	200	187.67			94		60-130		
1,2-Dichloroethane	20	19.32			97		73-124		
Ethylbenzene	20	19.76			99		80-120		
Isopropylbenzene	20	19.98			100		80-120		
Methyl Tertiary Butyl Ether	20	20.88			104		69-122		
Toluene	20	20.53			103		80-120		
1,2,4-Trimethylbenzene	20	19.36			97		75-120		
1,3,5-Trimethylbenzene	20	19.26			96		75-120		
Xylene (Total)	60	59.97			100		80-120		
Batch number: F191823AA	Sample number(s): 1084932-1084934								
Benzene	20	22.41			112		80-120		
t-Butyl alcohol	200	188.58			94		60-130		
	ug/l	ug/l	ug/l	ug/l					
Batch number: 19171WAU026	Sample number(s): 1084917-1084935,1084937								
Anthracene	50	45.42	50	42.5	91	85	67-112	7	30
Benzo(a)anthracene	50	42.06	50	44.21	84	88	70-118	5	30
Benzo(a)pyrene	50	49.77	50	48.59	100	97	71-117	2	30
Benzo(b)fluoranthene	50	46.33	50	49.11	93	98	71-115	6	30
Benzo(g,h,i)perylene	50	44.68	50	49.14	89	98	62-113	10	30
Chrysene	50	40.65	50	44.77	81	90	69-116	10	30
Fluorene	50	41.37	50	42.88	83	86	62-110	4	30
Naphthalene	50	42.04	50	40.47	84	81	53-99	4	30
Phenanthrene	50	44.8	50	44.58	90	89	65-113	0	30
Pyrene	50	46.5	50	50.39	93	101	68-110	8	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P####### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 07/02/2019 16:21

Group Number: 2049839

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 191710032A	Sample number(s): 1084917-1084935,1084937								
Ethylene dibromide	0.128	0.117	0.128	0.126	91	98	60-140	8	20
	ug/l	ug/l	ug/l	ug/l					
Batch number: 191721404704A	Sample number(s): 1084919-1084923,1084926-1084929,1084931,1084934-1084935								
Lead	15	14.56			97		90-110		
Batch number: 191721404705A	Sample number(s): 1084917-1084918,1084924-1084925,1084930,1084932-1084933,1084937								
Lead	15	14.82			99		90-110		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: F191792AA	Sample number(s): 1084917-1084922,1084927-1084930 UNSPK: 1084919									
Benzene	N.D.	20	22.69	20	22.21	113	111	80-120	2	30
t-Butyl alcohol	N.D.	200	204.4	200	196.93	102	98	60-130	4	30
1,2-Dichloroethane	N.D.	20	19.82	20	19.51	99	98	73-124	2	30
Ethylbenzene	N.D.	20	21.41	20	21.41	107	107	80-120	0	30
Isopropylbenzene	N.D.	20	21.87	20	21.62	109	108	80-120	1	30
Methyl Tertiary Butyl Ether	3.25	20	23.95	20	22.44	104	96	69-122	7	30
Toluene	N.D.	20	22.5	20	22.2	113	111	80-120	1	30
1,2,4-Trimethylbenzene	N.D.	20	20.38	20	20.92	102	105	75-120	3	30
1,3,5-Trimethylbenzene	N.D.	20	20.6	20	20.64	103	103	75-120	0	30
Xylene (Total)	N.D.	60	66.34	60	64.63	111	108	80-120	3	30
Batch number: F191794AA	Sample number(s): 1084921,1084927,1084929 UNSPK: P087950									
t-Butyl alcohol	N.D.	200	176.27	200	176.59	88	88	60-130	0	30
Ethylbenzene	N.D.	20	20.13	20	20.39	101	102	80-120	1	30
1,2,4-Trimethylbenzene	N.D.	20	19.58	20	19.42	98	97	75-120	1	30
Batch number: F191812AA	Sample number(s): 1084923-1084926,1084930-1084935 UNSPK: 1084924									
Benzene	0.278	20	23.91	20	23.93	118	118	80-120	0	30
t-Butyl alcohol	N.D.	200	190.46	200	189.39	95	95	60-130	1	30
1,2-Dichloroethane	N.D.	20	20.24	20	20.99	101	105	73-124	4	30
Ethylbenzene	N.D.	20	21.61	20	21.31	108	107	80-120	1	30
Isopropylbenzene	N.D.	20	21.82	20	20.6	109	103	80-120	6	30
Methyl Tertiary Butyl Ether	N.D.	20	23.57	20	24.24	118	121	69-122	3	30
Toluene	N.D.	20	23.26	20	22.77	116	114	80-120	2	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P####### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 07/02/2019 16:21

Group Number: 2049839

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
1,2,4-Trimethylbenzene	N.D.	20	20.76	20	18.96	104	95	75-120	9	30
1,3,5-Trimethylbenzene	N.D.	20	21.16	20	19.17	106	96	75-120	10	30
Xylene (Total)	N.D.	60	66.76	60	64.49	111	107	80-120	3	30
Batch number: F191823AA	Sample number(s): 1084932-1084934 UNSPK: P085942									
Benzene	N.D.	20	19.4	20	20.04	97	100	80-120	3	30
t-Butyl alcohol	N.D.	200	169.48	200	174.36	85	87	60-130	3	30
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 191710032A	Sample number(s): 1084917-1084935,1084937 UNSPK: 1084922									
Ethylene dibromide	N.D.	0.121	0.124			102		60-140		
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 191721404704A	Sample number(s): 1084919-1084923,1084926-1084929,1084931,1084934-1084935 UNSPK: 1084929									
Lead	N.D.	15	14.86	15	15.09	99	101	75-125	2	20
Batch number: 191721404705A	Sample number(s): 1084917-1084918,1084924-1084925,1084930,1084932-1084933,1084937 UNSPK: 1084930									
Lead	N.D.	15	15.43	15	14.86	103	99	75-125	4	20

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc	DUP Conc	DUP RPD	DUP RPD Max
	ug/l	ug/l		
Batch number: 191710032A	Sample number(s): 1084917-1084935,1084937 BKG: 1084923			
Ethylene dibromide	N.D.	N.D.	0 (1)	30
	ug/l	ug/l		
Batch number: 191721404704A	Sample number(s): 1084919-1084923,1084926-1084929,1084931,1084934-1084935 BKG: 1084929			
Lead	N.D.	N.D.	0 (1)	20
Batch number: 191721404705A	Sample number(s): 1084917-1084918,1084924-1084925,1084930,1084932-1084933,1084937 BKG: 1084930			
Lead	N.D.	N.D.	0 (1)	20

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 07/02/2019 16:21

Group Number: 2049839

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX/MTBE/Cum/EDB/EDC/TBA/TMBs
Batch number: F191784AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1084936	96	98	99	91
1084937	97	100	97	91
Blank	96	97	101	92
LCS	97	101	99	96
LCSD	95	93	101	95
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: F191792AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1084917	98	98	98	90
1084918	95	98	102	93
1084919	98	102	98	93
1084920	98	97	101	92
1084921	93	93	100	99
1084922	96	97	99	92
1084927	97	101	101	99
1084928	95	99	100	95
1084929	94	103	100	94
1084930	94	96	98	106
Blank	99	98	99	91
LCS	96	103	99	95
MS	96	102	101	97
MSD	97	101	98	94
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: F191812AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1084923	97	99	97	93
1084924	97	93	99	92
1084925	99	95	98	96
1084926	94	96	97	96
1084931	93	95	99	100
1084932	95	93	99	101
1084933	95	95	99	99
1084934	95	95	98	101
1084935	97	98	99	99
Blank	96	99	100	92
LCS	96	94	98	95

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 07/02/2019 16:21

Group Number: 2049839

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: F191812AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
MS	95	99	99	93
MSD	95	95	99	95
Limits:	80-120	80-120	80-120	80-120

Analysis Name: PAHs 8270C MINI
Batch number: 19171WAU026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
1084917	70	90	45
1084918	70	92	47
1084919	70	93	49
1084920	69	95	45
1084921	87	81	47
1084922	66	88	54
1084923	41	37*	11*
1084924	66	87	60
1084925	71	89	49
1084926	68	91	51
1084927	71	85	55
1084928	71	91	54
1084929	70	90	56
1084930	67	84	45
1084931	63	80	44
1084932	60	77	40
1084933	49	58	30*
1084934	67	81	44
1084935	57	71	35
1084937	68	88	65
Blank	69	86	61
LCS	72	92	70
LCSD	71	91	81
Limits:	35-107	44-102	33-126

Analysis Name: EDB in Wastewater
Batch number: 191710032A

	1,1,2,2-Tetrachloroethane-D1	1,1,2,2-Tetrachloroethane-D2
1084917	93	91
1084918	90	87
1084919	87	77
1084920	87	83
1084921	111	131

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 07/02/2019 16:21

Group Number: 2049839

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: EDB in Wastewater
Batch number: 191710032A

	1,1,2,2-Tetrachloroethane-D1	1,1,2,2-Tetrachloroethane-D2
1084922	85	80
1084923	94	90
1084924	94	92
1084925	94	90
1084926	101	86
1084927	96	93
1084928	95	91
1084929	92	83
1084930	87	84
1084931	93	93
1084932	93	88
1084933	100	88
1084934	107	97
1084935	113	126
1084937	91	83
Blank	90	85
DUP	88	81
LCS	88	80
LCSD	92	86
MS	99	92
Limits:	46-136	46-136

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Environmental Analysis Request/Chain of Custody

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Acct. # 16657 Group # 2049839 Sample # 584917-37

COC #586741

Client Information

Client: Stantec

Acct. #: 16657 Evergreen c/o Stantec

Project Name/#: 2019 Annual GWS PHC

PWSID #:

Project Manager: Jennifer Menges

P.O. #: 23402429

Sampler: Dane Hopkins / Dalton Campbell

Quote #:

State where samples were collected: PA

For Compliance: Yes ☐ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ Water ☒ Potable ☐ Ground ☐ NPDES ☐ Surface ☐ Other: ____

Analysis Requested

Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	Evergreen Petro VOC 8260	EDB 8011	Dissolved Lead (Field Filtered)	PAH 8270	TBA 8260
S-302D_20190617	6/17/19	1000	X		8	X	X	X	X	X
DUP-1		1000	X		8	X	X	X	X	X
S-72D_20190617		1115	X		8	X	X	X	X	X
S-294D_20190617		1200	X		8	X	X	X	X	X
S-294_20190617		1300	X		8	X	X	X	X	X
S-354_20190617		1400	X		8	X	X	X	X	X
S-425_20190618	6/18/19	0940	X		8	X	X	X	X	X
S-427_20190618		1030	X		8	X	X	X	X	X
S-422_20190618		1200	X		8	X	X	X	X	X
S-71_20190618		1230	X		8	X	X	X	X	X

For Lab Use Only

FSC:

SCR#:

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks

*See list of analytes refer to attached Evergreen Short List

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: ____

E-mail address: Jennifer.Menges@Stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) ~~Type VI (Raw Data Only)~~

Type III (Reduced non-CLP) NJ DKQP TX TRRP-13

NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
Dane	6/18/19	1530	Ashley Bradley	6/18/19	1530
Ashley Bradley	6/19/19	1230		6.18.19	1230
	6.19.19	1615			
				6.19.19	1615

EDD Required? Yes No

If yes, format: EQUIS

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other ____

Temperature upon receipt 1.1-1.5 °C

Environmental Analysis Request/Chain of Custody

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Acct. # 16657 Group # 2049839 Sample # 1084917-37

COC #586745

Client Information

Client: Stantec	Acct. #: 16657 c/o Evergreen Stantec
Project Name/#: 2019 Annual GWS PHL	PWSID #:
Project Manager: Jennifer Menges	P.O. #: 213402429
Sampler: Dana Hoblitzell	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: ____

Analysis Requested — Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Water	Other	Total # of Containers	Evergreen Petro VOC 8260	~~Evergreen Petro~~ TBA 8260	EDB 8011	Dissolved Lead Field Filtered	PAH 8270						Remarks
S-399_20190617	6/17/19	1020	X					8	X	X	X	X	X						
S42I_20190617	6/17/19	1125	X					8	X	X	X	X	X						
S87I_20190617	6/17/19	1315	X					8	X	X	X	X	X						
S-388D_20190617	6/17/19	1405	X					8	X	X	X	X	X						
S-398_20190618	6/18/19	0930	X					8	X	X	X	X	X						
S-273_20190618	6/18/19	1025	X					8	X	X	X	X	X						
S-271_20190618	6/18/19	1110	X					8	X	X	X	X	X						
S-44_20190618	6/18/19	1305	X					8	X	X	X	X	X						
~~FB_20190618~~	~~[illegible]~~							~~2~~											

For Lab Use Only

FSC: ____

SCR#: 244052

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks

Lead is field filtered
Evergreen Petroleum
Short List

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: ____

E-mail address: jennifer.menges@stantec.com

Relinquished by	Date	Time	Received by	Date	Time
Bottle Storage			[signature]		
[signature]	6/18/19	1530	[signature]	6/18/19	1530
[signature]	6/19/19	1230	[signature]	6.19.19	1230
[signature]	6.19.19	1615			
			[signature]	6-19-19	1615

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)

Type III (Reduced non-CLP) NJ DKQP TX TRRP-13

NYSDEC Category A or B MA MCP CT RCP

EDD Required? Yes No

If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other ____

Temperature upon receipt 1.1-1.5 °C

Environmental Analysis Request/Chain of Custody

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Acct. # 16657 Group # 2049839 Sample # 1084917-37

COC # 586742

Client Information

Client: Stantec

Acct. #: 16657 Evergreen c/o Stantec

Project Name/#: 2019 Annual GWS PHL

PWSID #:

Project Manager: Jennifer Menges

P.O. #: 23402429

Sampler: Dane Hopkins / Drayton Campbell

Quote #:

State where samples were collected: PA

For Compliance: Yes ☐ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ Water ☒ Ground ☐ Potable ☐ Surface ☐ NPDES ☐ Other: blank

Analysis Requested

Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	Evergreen Petro VOC 8260	EDB 8011	Dissolved Lead (Field Filtered)	PAH 8270	TBA 8260
S-3006-20190618	6/18/19	1315	X		8	X	X	X	X	X
TB-20190618	6/5/19	—			2	X				
FB-20190618	6/18/19	1410	X		8	X	X	X	X	X

For Lab Use Only

FSC:

SCR#:

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks

* for list of analytes refer to attached Evergreen Short List

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days:

E-mail address: Jennifer.Menges@stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) ~~Type VI (Raw Data Only)~~

Type III (Reduced non-CLP) NJ DKQP TX TRRP-13

NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
Dane	6/18/2019	1530		6/18/19	1530
	6/19/19	1230		6.19.19	1230
	6.19.19	1615			
				6-19-19	1615

EDD Required? Yes No

If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____

Temperature upon receipt 1.5-1.5 °C

2049839

Evergreen Petroleum Short List (June 2016)

VOCs by EPA Method 8260	CAS No.
Benzene	71-43-2
Cumene	98-82-8
Dichloroethane, 1,2-	107-06-2
Ethylbenzene	100-41-4
Ethylene Dibromide*	106-93-4
Methyl tert butyl ether	1634-04-4
Toluene	108-88-3
Trimethylbenzene, 1,2,4-	95-63-6
Trimethylbenzene, 1,3,5-	108-67-8
Xylenes	1330-20-7

SVOCs by EPA Method 8270	CAS No.
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Chrysene	218-01-9
Fluorene	86-73-7
Naphthalene**	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Metals by Method 6010/6020	CAS No.
Lead***	7439-92-1

*Ethylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples.** EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

**Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

***Metals analysis should be total in soil and dissolved in groundwater.

This list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline and No. 1, 2, 4, 5, 6 Fuel Oils).

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Sample Administration Receipt Documentation Log

Doc Log ID: 251944

Group Number(s): 2049839

Client: Stantec

Delivery and Receipt Information

Delivery Method:	ELLE Courier	Arrival Timestamp:	06/19/2019 16:15
Number of Packages:	2	Number of Projects:	3
State/Province of Origin:	PA		

Arrival Condition Summary

Shipping Container Sealed:	No	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	VOA Vial Headspace ≥ 6mm:	No
Paperwork Enclosed:	Yes	Total Trip Blank Qty:	2
Samples Intact:	Yes	Trip Blank Type:	HCl
Missing Samples:	No	Air Quality Samples Present:	No
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Cory Jeremiah (10469) at 20:47 on 06/19/2019

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT131	1.1	DT	Wet	Y	Bagged	N
2	DT131	1.5	DT	Wet	Y	Bagged	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.co

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report
B	Detection in the Blank
Q0	LCS/LCSD Low
Q1	LCS/LCSD High
Q2	MS/MSD Low
Q3	MS/MSD High
Q7	LCS/LCSD RPD
Q8	DUP RPD
Q9	MS/MSD RPD

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

Report Date: July 06, 2019 12:07

Project: 2019 Annual GWS PHL

Account #: 16657
Group Number: 2050556
PO Number: 213402429
State of Sample Origin: PA

Electronic Copy To	Evergreen c/o Stantec	Attn: Jennifer Menges
Electronic Copy To	Evergreen c/o Stantec	Attn: Andrew Bradley

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
S-377_20190619 Grab Groundwater	06/19/2019 09:55	1088308
S-378_20190619 Grab Groundwater	06/19/2019 10:45	1088309
S-374_20190619 Grab Groundwater	06/19/2019 11:50	1088310
S-375_20190619 Grab Groundwater	06/19/2019 12:50	1088311
RW-701_20190620 Grab Groundwater	06/20/2019 09:35	1088312
RW-703_20190620 Grab Groundwater	06/20/2019 10:30	1088313
RW-708_20190620 Grab Groundwater	06/20/2019 11:30	1088314
RW-715_20190620 Grab Groundwater	06/20/2019 12:05	1088315
TB_20190620 Water	06/05/2019	1088316
S-230_20190619 Grab Groundwater	06/19/2019 09:25	1088317
S-418_20190619 Grab Groundwater	06/19/2019 10:55	1088318
DUP2_20190619 Grab Groundwater	06/19/2019 10:55	1088319
S-369_20190619 Grab Groundwater	06/19/2019 13:00	1088320
S-396_20190620 Grab Groundwater	06/20/2019 10:05	1088321
S-39D_20190620 Grab Groundwater	06/20/2019 11:40	1088322
S-38D2_20190620 Grab Groundwater	06/20/2019 12:35	1088323
S-13_20190619 Grab Groundwater	06/19/2019 11:15	1088324
S-284D_20190619 Grab Groundwater	06/19/2019 14:15	1088325
S-280D_20190620 Grab Groundwater	06/20/2019 10:15	1088326
S-20_20190620 Grab Groundwater	06/20/2019 13:15	1088327

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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Analysis Report

Sample Description: S-377_20190619 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/19/2019 09:55

Stantec
ELLE Sample #: GW 1088308
ELLE Group #: 2050556
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	860	10	50
10945	t-Butyl alcohol	75-65-0	130	50	5
10945	1,2-Dichloroethane	107-06-2	N.D.	10	5
10945	Ethylbenzene	100-41-4	110	1	5
10945	Isopropylbenzene	98-82-8	28	2	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	12	1	5
10945	Toluene	108-88-3	240	1	5
10945	1,2,4-Trimethylbenzene	95-63-6	89	2	5
10945	1,3,5-Trimethylbenzene	108-67-8	77	2	5
10945	Xylene (Total)	1330-20-7	410	3	5
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	33	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z191834AA	07/03/2019 01:37	Hu Yang	5
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z191842AA	07/03/2019 15:05	Anita M Dale	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z191834AA	07/03/2019 01:36	Hu Yang	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Z191842AA	07/03/2019 15:04	Anita M Dale	50
14249	PAHs 8270C MINI	SW-846 8270C	1	19177WAA026	06/27/2019 17:03	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19177WAA026	06/26/2019 19:30	Christine E Gleim	1
10398	EDB in Wastewater	SW-846 8011	1	191770020A	06/29/2019 07:05	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	191770020A	06/27/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191761404702A	07/01/2019 18:49	Bradley M Berlot	1

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Sample Description: **S-377_20190619 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/19/2019 09:55

Stantec
ELLE Sample #: GW 1088308
ELLE Group #: 2050556
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191761404702	06/26/2019 14:35	JoElla L Rice	1

Sample Description: S-378_20190619 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/19/2019 10:45

Stantec
ELLE Sample #: GW 1088309
ELLE Group #: 2050556
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	3,000	10	50
10945	t-Butyl alcohol	75-65-0	130	50	5
10945	1,2-Dichloroethane	107-06-2	N.D.	10	5
10945	Ethylbenzene	100-41-4	1,300	10	50
10945	Isopropylbenzene	98-82-8	48	2	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	5
10945	Toluene	108-88-3	450	1	5
10945	1,2,4-Trimethylbenzene	95-63-6	890	2	5
10945	1,3,5-Trimethylbenzene	108-67-8	320	2	5
10945	Xylene (Total)	1330-20-7	1,300	3	5
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	0.1 J	0.1	1
14249	Naphthalene	91-20-3	320	0.5	5
14249	Phenanthrene	85-01-8	0.2 J	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z191834AA	07/03/2019 02:02	Hu Yang	5
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z191834AA	07/03/2019 02:26	Hu Yang	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z191834AA	07/03/2019 02:01	Hu Yang	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Z191834AA	07/03/2019 02:25	Hu Yang	50
14249	PAHs 8270C MINI	SW-846 8270C	1	19177WAA026	06/27/2019 17:31	Sylvester Williams	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19177WAA026	06/28/2019 15:35	Sylvester Williams	5
07807	BNA Water Extraction	SW-846 3510C	1	19177WAA026	06/26/2019 19:30	Christine E Gleim	1
10398	EDB in Wastewater	SW-846 8011	1	191770020A	06/29/2019 07:37	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	191770020A	06/27/2019 04:00	Mathias Okpo	1

Sample Description: **S-378_20190619 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/19/2019 10:45

Stantec
ELLE Sample #: GW 1088309
ELLE Group #: 2050556
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	191761404702A	07/01/2019 18:51	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191761404702	06/26/2019 14:35	JoElla L Rice	1

Sample Description: S-374_20190619 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/19/2019 11:50

Stantec
ELLE Sample #: GW 1088310
ELLE Group #: 2050556
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	200	1	5
10945	t-Butyl alcohol	75-65-0	N.D.	50	5
10945	1,2-Dichloroethane	107-06-2	N.D.	10	5
10945	Ethylbenzene	100-41-4	1,000	10	50
10945	Isopropylbenzene	98-82-8	100	2	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	5
10945	Toluene	108-88-3	240	1	5
10945	1,2,4-Trimethylbenzene	95-63-6	1,000	15	50
10945	1,3,5-Trimethylbenzene	108-67-8	240	2	5
10945	Xylene (Total)	1330-20-7	2,100	3	5
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	0.1 J	0.1	1
14249	Naphthalene	91-20-3	120	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	0.021 JD1	0.010	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z191834AA	07/03/2019 02:50	Hu Yang	5
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z191842AA	07/03/2019 15:30	Anita M Dale	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z191834AA	07/03/2019 02:49	Hu Yang	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Z191842AA	07/03/2019 15:29	Anita M Dale	50
14249	PAHs 8270C MINI	SW-846 8270C	1	19177WAA026	06/27/2019 18:00	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19177WAA026	06/26/2019 19:30	Christine E Gleim	1
10398	EDB in Wastewater	SW-846 8011	1	191770020A	06/29/2019 08:09	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	191770020A	06/27/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191761404702A	07/01/2019 18:53	Bradley M Berlot	1

Sample Description: **S-374_20190619 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/19/2019 11:50

Stantec
ELLE Sample #: GW 1088310
ELLE Group #: 2050556
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191761404702	06/26/2019 14:35	JoElla L Rice	1

Sample Description: S-375_20190619 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/19/2019 12:50

Stantec
ELLE Sample #: GW 1088311
ELLE Group #: 2050556
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	440	2	10
10945	t-Butyl alcohol	75-65-0	60	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	990	2	10
10945	Isopropylbenzene	98-82-8	46	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	1,000	2	10
10945	1,2,4-Trimethylbenzene	95-63-6	760	3	10
10945	1,3,5-Trimethylbenzene	108-67-8	250	3	10
10945	Xylene (Total)	1330-20-7	4,400	5	10
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	0.3 J	0.1	1
14249	Naphthalene	91-20-3	230	0.5	5
14249	Phenanthrene	85-01-8	0.2 J	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.019	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z191834AA	07/02/2019 23:35	Hu Yang	1
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z191842AA	07/03/2019 15:54	Anita M Dale	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z191834AA	07/02/2019 23:34	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Z191842AA	07/03/2019 15:53	Anita M Dale	10
14249	PAHs 8270C MINI	SW-846 8270C	1	19177WAA026	06/27/2019 18:29	Sylvester Williams	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19177WAA026	06/28/2019 16:04	Sylvester Williams	5
07807	BNA Water Extraction	SW-846 3510C	1	19177WAA026	06/26/2019 19:30	Christine E Gleim	1
10398	EDB in Wastewater	SW-846 8011	1	191770020A	06/29/2019 08:24	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	191770020A	06/27/2019 04:00	Mathias Okpo	1

Sample Description: **S-375_20190619 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/19/2019 12:50

Stantec
ELLE Sample #: GW 1088311
ELLE Group #: 2050556
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	191771404704A	06/28/2019 11:49	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191771404704	06/27/2019 06:30	Annamaria Kuhns	1

Sample Description: **RW-701_20190620 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/20/2019 09:35

Stantec
ELLE Sample #: GW 1088312
ELLE Group #: 2050556
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	1,500	2	10
10945	t-Butyl alcohol	75-65-0	99 J	50	5
10945	1,2-Dichloroethane	107-06-2	N.D.	10	5
10945	Ethylbenzene	100-41-4	230	1	5
10945	Isopropylbenzene	98-82-8	14 J	2	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	180	1	5
10945	Toluene	108-88-3	740	1	5
10945	1,2,4-Trimethylbenzene	95-63-6	380	2	5
10945	1,3,5-Trimethylbenzene	108-67-8	140	2	5
10945	Xylene (Total)	1330-20-7	1,600	3	5
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	6	0.1	1
14249	Benzo(a)anthracene	56-55-3	0.2 J	0.1	1
14249	Benzo(a)pyrene	50-32-8	0.1 J	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	0.2 J	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	0.1 J	0.1	1
14249	Chrysene	218-01-9	0.2 J	0.1	1
14249	Fluorene	86-73-7	18	0.1	1
14249	Naphthalene	91-20-3	10	0.1	1
14249	Phenanthrene	85-01-8	39	0.1	1
14249	Pyrene	129-00-0	2	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.027	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z191842AA	07/03/2019 16:19	Anita M Dale	10
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z191844AA	07/04/2019 06:55	Hu Yang	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z191842AA	07/03/2019 16:18	Anita M Dale	10
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Z191844AA	07/04/2019 06:54	Hu Yang	5
14249	PAHs 8270C MINI	SW-846 8270C	1	19177WAA026	06/27/2019 18:58	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19177WAA026	06/26/2019 19:30	Christine E Gleim	1
10398	EDB in Wastewater	SW-846 8011	1	191770020A	06/29/2019 08:40	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	191770020A	06/27/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191761404702A	07/01/2019 18:56	Bradley M Berlot	1

Sample Description: **RW-701_20190620 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/20/2019 09:35

Stantec
ELLE Sample #: GW 1088312
ELLE Group #: 2050556
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191761404702	06/26/2019 14:35	JoElla L Rice	1

Sample Description: RW-703_20190620 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/20/2019 10:30

Stantec
ELLE Sample #: GW 1088313
ELLE Group #: 2050556
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	1,600	4	20
10945	t-Butyl alcohol	75-65-0	N.D.	50	5
10945	1,2-Dichloroethane	107-06-2	N.D.	10	5
10945	Ethylbenzene	100-41-4	45	1	5
10945	Isopropylbenzene	98-82-8	3 J	2	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	5
10945	Toluene	108-88-3	1,400	4	20
10945	1,2,4-Trimethylbenzene	95-63-6	350	2	5
10945	1,3,5-Trimethylbenzene	108-67-8	150	2	5
10945	Xylene (Total)	1330-20-7	1,900	3	5
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	6	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	16	0.1	1
14249	Naphthalene	91-20-3	41	0.1	1
14249	Phenanthrene	85-01-8	37	0.1	1
14249	Pyrene	129-00-0	2	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.014	1

A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/TMBs	SW-846 8260B	1	Z191842AA	07/03/2019 16:43	Anita M Dale	20
10945	BTEX/MTBE/Cumene/EDC/TBA/TMBs	SW-846 8260B	1	Z191844AA	07/04/2019 07:20	Hu Yang	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z191842AA	07/03/2019 16:42	Anita M Dale	20

Sample Description: **RW-703_20190620 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/20/2019 10:30

Stantec
ELLE Sample #: GW 1088313
ELLE Group #: 2050556
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Z191844AA	07/04/2019 07:19	Hu Yang	5
14249	PAHs 8270C MINI	SW-846 8270C	1	19177WAA026	06/27/2019 19:27	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19177WAA026	06/26/2019 19:30	Christine E Gleim	1
10398	EDB in Wastewater	SW-846 8011	1	191770020A	06/29/2019 09:28	Richard A Shober	1
07786	EDB Extraction (8011)	SW-846 8011	1	191770020A	06/27/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191771404704A	06/28/2019 11:50	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191771404704	06/27/2019 06:30	Annamaria Kuhns	1

Sample Description: RW-708_20190620 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/20/2019 11:30

Stantec
ELLE Sample #: GW 1088314
ELLE Group #: 2050556
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	510	1	5
10945	t-Butyl alcohol	75-65-0	12 J	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	260	1	5
10945	Isopropylbenzene	98-82-8	12	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	90	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	560	2	5
10945	1,3,5-Trimethylbenzene	108-67-8	230	2	5
10945	Xylene (Total)	1330-20-7	1,700	3	5
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	1	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	5	0.1	1
14249	Naphthalene	91-20-3	91	0.1	1
14249	Phenanthrene	85-01-8	8	0.1	1
14249	Pyrene	129-00-0	0.8	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1

A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/TMBs	SW-846 8260B	1	Z191842AA	07/03/2019 17:08	Anita M Dale	5
10945	BTEX/MTBE/Cumene/EDC/TBA/TMBs	SW-846 8260B	1	F191861AA	07/05/2019 18:41	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z191842AA	07/03/2019 17:07	Anita M Dale	5

Sample Description: **RW-708_20190620 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/20/2019 11:30

Stantec
ELLE Sample #: GW 1088314
ELLE Group #: 2050556
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F191861AA	07/05/2019 18:40	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19177WAA026	06/27/2019 19:56	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19177WAA026	06/26/2019 19:30	Christine E Gleim	1
10398	EDB in Wastewater	SW-846 8011	1	191770020A	06/29/2019 09:43	Richard A Shober	1
07786	EDB Extraction (8011)	SW-846 8011	1	191770020A	06/27/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191771404704A	06/28/2019 11:54	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191771404704	06/27/2019 06:30	Annamaria Kuhns	1

Sample Description: **RW-715_20190620 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/20/2019 12:05

Stantec
ELLE Sample #: GW 1088315
ELLE Group #: 2050556
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	0.8 J	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	1	0.2	1
10945	Toluene	108-88-3	0.3 J	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	0.6 J	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1

A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z191842AA	07/03/2019 17:32	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z191842AA	07/03/2019 17:31	Anita M Dale	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19177WAA026	06/27/2019 20:25	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19177WAA026	06/26/2019 19:30	Christine E Gleim	1

Sample Description: **RW-715_20190620 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/20/2019 12:05

Stantec
ELLE Sample #: GW 1088315
ELLE Group #: 2050556
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	EDB in Wastewater	SW-846 8011	1	191770020A	06/29/2019 09:59	Richard A Shober	1
07786	EDB Extraction (8011)	SW-846 8011	1	191770020A	06/27/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191761404702A	07/01/2019 18:58	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191761404702	06/26/2019 14:35	JoElla L Rice	1

Sample Description: **TB_20190620 Water**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/05/2019

Stantec
ELLE Sample #: GW 1088316
ELLE Group #: 2050556
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dibromoethane	106-93-4	N.D.	0.3	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cum/EDB/EDC/TBA /TMBs	SW-846 8260B	1	Z191834AA	07/02/2019 20:44	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z191834AA	07/02/2019 20:43	Hu Yang	1

Sample Description: S-230_20190619 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/19/2019 09:25

Stantec
ELLE Sample #: GW 1088317
ELLE Group #: 2050556
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	3,200	10	50
10945	t-Butyl alcohol	75-65-0	N.D.	50	5
10945	1,2-Dichloroethane	107-06-2	N.D.	10	5
10945	Ethylbenzene	100-41-4	9	1	5
10945	Isopropylbenzene	98-82-8	N.D.	2	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	5
10945	Toluene	108-88-3	150	1	5
10945	1,2,4-Trimethylbenzene	95-63-6	3 J	2	5
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	2	5
10945	Xylene (Total)	1330-20-7	11 J	3	5
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	0.3 J	0.1	1
14249	Benzo(a)pyrene	50-32-8	0.3 J	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	0.5	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	0.3 J	0.1	1
14249	Chrysene	218-01-9	0.5 J	0.1	1
14249	Fluorene	86-73-7	0.1 J	0.1	1
14249	Naphthalene	91-20-3	0.2 J	0.1	1
14249	Phenanthrene	85-01-8	0.3 J	0.1	1
14249	Pyrene	129-00-0	0.7	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1

A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z191834AA	07/03/2019 03:15	Hu Yang	5
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z191834AA	07/03/2019 03:39	Hu Yang	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z191834AA	07/03/2019 03:14	Hu Yang	5

Sample Description: **S-230_20190619 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/19/2019 09:25

Stantec
ELLE Sample #: GW 1088317
ELLE Group #: 2050556
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Z191834AA	07/03/2019 03:38	Hu Yang	50
14249	PAHs 8270C MINI	SW-846 8270C	1	19177WAA026	06/28/2019 18:02	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19177WAA026	06/26/2019 19:30	Christine E Gleim	1
10398	EDB in Wastewater	SW-846 8011	1	191770020A	06/29/2019 10:15	Richard A Shober	1
07786	EDB Extraction (8011)	SW-846 8011	1	191770020A	06/27/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191761404702A	07/01/2019 19:00	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191761404702	06/26/2019 14:35	JoElla L Rice	1

Sample Description: S-418_20190619 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/19/2019 10:55

Stantec
ELLE Sample #: GW 1088318
ELLE Group #: 2050556
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	23,000	100	500
10945	t-Butyl alcohol	75-65-0	1,000	50	5
10945	1,2-Dichloroethane	107-06-2	N.D.	10	5
10945	Ethylbenzene	100-41-4	160	1	5
10945	Isopropylbenzene	98-82-8	72	2	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	45	1	5
10945	Toluene	108-88-3	87	1	5
10945	1,2,4-Trimethylbenzene	95-63-6	93	2	5
10945	1,3,5-Trimethylbenzene	108-67-8	45	2	5
10945	Xylene (Total)	1330-20-7	180	3	5
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	1	0.1	1
14249	Naphthalene	91-20-3	43	0.1	1
14249	Phenanthrene	85-01-8	0.9	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1

A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z191834AA	07/03/2019 04:04	Hu Yang	5
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z191842AA	07/03/2019 17:57	Anita M Dale	500
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z191834AA	07/03/2019 04:03	Hu Yang	5

Sample Description: **S-418_20190619 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/19/2019 10:55

Stantec
ELLE Sample #: GW 1088318
ELLE Group #: 2050556
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Z191842AA	07/03/2019 17:56	Anita M Dale	500
14249	PAHs 8270C MINI	SW-846 8270C	1	19177WAA026	06/27/2019 21:22	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19177WAA026	06/26/2019 19:30	Christine E Gleim	1
10398	EDB in Wastewater	SW-846 8011	1	191770020A	06/29/2019 10:31	Richard A Shober	1
07786	EDB Extraction (8011)	SW-846 8011	1	191770020A	06/27/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191761404702A	07/01/2019 19:08	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191761404702	06/26/2019 14:35	JoElla L Rice	1

Sample Description: DUP2_20190619 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/19/2019 10:55

Stantec
ELLE Sample #: GW 1088319
ELLE Group #: 2050556
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	
10945	Benzene	71-43-2	23,000		100	500
10945	t-Butyl alcohol	75-65-0	1,100	J	500	50
10945	1,2-Dichloroethane	107-06-2	N.D.		100	50
10945	Ethylbenzene	100-41-4	140		10	50
10945	Isopropylbenzene	98-82-8	60	J	15	50
10945	Methyl Tertiary Butyl Ether	1634-04-4	45	J	10	50
10945	Toluene	108-88-3	83		10	50
10945	1,2,4-Trimethylbenzene	95-63-6	83	J	15	50
10945	1,3,5-Trimethylbenzene	108-67-8	40	J	15	50
10945	Xylene (Total)	1330-20-7	170	J	25	50
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	
14249	Anthracene	120-12-7	N.D.		0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.		0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.		0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.		0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.		0.1	1
14249	Chrysene	218-01-9	N.D.		0.1	1
14249	Fluorene	86-73-7	1		0.1	1
14249	Naphthalene	91-20-3	35		0.1	1
14249	Phenanthrene	85-01-8	0.8		0.1	1
14249	Pyrene	129-00-0	N.D.		0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D.	D1	0.0094	1

A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	
06035	Lead	7439-92-1	N.D.		1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z191834AA	07/03/2019 04:52	Hu Yang	50
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z191834AA	07/03/2019 05:17	Hu Yang	500
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z191834AA	07/03/2019 04:51	Hu Yang	50

Sample Description: **DUP2_20190619 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/19/2019 10:55

Stantec
ELLE Sample #: GW 1088319
ELLE Group #: 2050556
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Z191834AA	07/03/2019 05:16	Hu Yang	500
14249	PAHs 8270C MINI	SW-846 8270C	1	19177WAA026	06/27/2019 21:51	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19177WAA026	06/26/2019 19:30	Christine E Gleim	1
10398	EDB in Wastewater	SW-846 8011	1	191770020A	06/29/2019 10:47	Richard A Shober	1
07786	EDB Extraction (8011)	SW-846 8011	1	191770020A	06/27/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191761404702A	07/01/2019 19:10	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191761404702	06/26/2019 14:35	JoElla L Rice	1

Sample Description: S-369_20190619 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/19/2019 13:00

Stantec
ELLE Sample #: GW 1088320
ELLE Group #: 2050556
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	740	1	5
10945	t-Butyl alcohol	75-65-0	1,100	50	5
10945	1,2-Dichloroethane	107-06-2	N.D.	10	5
10945	Ethylbenzene	100-41-4	12	1	5
10945	Isopropylbenzene	98-82-8	68	2	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	11	1	5
10945	Toluene	108-88-3	40	1	5
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	2	5
10945	1,3,5-Trimethylbenzene	108-67-8	3 J	2	5
10945	Xylene (Total)	1330-20-7	24 J	3	5
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	2	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	1	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1

A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z191834AA	07/03/2019 05:41	Hu Yang	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z191834AA	07/03/2019 05:40	Hu Yang	5
14249	PAHs 8270C MINI	SW-846 8270C	1	19177WAA026	06/27/2019 22:20	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19177WAA026	06/26/2019 19:30	Christine E Gleim	1

Sample Description: **S-369_20190619 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/19/2019 13:00

Stantec
ELLE Sample #: GW 1088320
ELLE Group #: 2050556
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	EDB in Wastewater	SW-846 8011	1	191770020A	06/29/2019 11:02	Richard A Shober	1
07786	EDB Extraction (8011)	SW-846 8011	1	191770020A	06/27/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191761404702A	07/01/2019 18:16	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191761404702	06/26/2019 14:35	JoElla L Rice	1

Sample Description: S-396_20190620 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/20/2019 10:05

Stantec
ELLE Sample #: GW 1088321
ELLE Group #: 2050556
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	1,600	2	10
10945	t-Butyl alcohol	75-65-0	78,000	1,000	100
10945	1,2-Dichloroethane	107-06-2	N.D.	20	10
10945	Ethylbenzene	100-41-4	14	2	10
10945	Isopropylbenzene	98-82-8	12 J	3	10
10945	Methyl Tertiary Butyl Ether	1634-04-4	1,700	2	10
10945	Toluene	108-88-3	N.D.	2	10
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	3	10
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	3	10
10945	Xylene (Total)	1330-20-7	6 J	5	10
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	0.9	0.1	1
14249	Phenanthrene	85-01-8	0.1 J	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1

A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z191842AA	07/03/2019 18:21	Anita M Dale	10
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z191842AA	07/03/2019 18:46	Anita M Dale	100
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z191842AA	07/03/2019 18:20	Anita M Dale	10

Sample Description: **S-396_20190620 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/20/2019 10:05

Stantec
ELLE Sample #: GW 1088321
ELLE Group #: 2050556
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Z191842AA	07/03/2019 18:45	Anita M Dale	100
14249	PAHs 8270C MINI	SW-846 8270C	1	19177WAA026	06/27/2019 22:49	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19177WAA026	06/26/2019 19:30	Christine E Gleim	1
10398	EDB in Wastewater	SW-846 8011	1	191770020A	06/29/2019 11:18	Richard A Shober	1
07786	EDB Extraction (8011)	SW-846 8011	1	191770020A	06/27/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191761404702A	07/01/2019 19:12	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191761404702	06/26/2019 14:35	JoElla L Rice	1

Sample Description: S-39D_20190620 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/20/2019 11:40

Stantec
ELLE Sample #: GW 1088322
ELLE Group #: 2050556
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	0.2 J	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	91	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1

A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z191842AA	07/03/2019 19:10	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z191842AA	07/03/2019 19:09	Anita M Dale	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19177WAA026	06/27/2019 23:18	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19177WAA026	06/26/2019 19:30	Christine E Gleim	1

Sample Description: **S-39D_20190620 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/20/2019 11:40

Stantec
ELLE Sample #: GW 1088322
ELLE Group #: 2050556
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	EDB in Wastewater	SW-846 8011	1	191770020A	06/29/2019 11:34	Richard A Shober	1
07786	EDB Extraction (8011)	SW-846 8011	1	191770020A	06/27/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191761404702A	07/01/2019 19:15	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191761404702	06/26/2019 14:35	JoElla L Rice	1

Sample Description: S-38D2_20190620 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/20/2019 12:35

Stantec
ELLE Sample #: GW 1088323
ELLE Group #: 2050556
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1

A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191842AA	07/03/2019 13:36	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191842AA	07/03/2019 13:35	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19177WAA026	06/27/2019 23:46	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19177WAA026	06/26/2019 19:30	Christine E Gleim	1

Sample Description: **S-38D2_20190620 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/20/2019 12:35

Stantec
ELLE Sample #: GW 1088323
ELLE Group #: 2050556
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	EDB in Wastewater	SW-846 8011	1	191770020A	06/29/2019 11:50	Richard A Shober	1
07786	EDB Extraction (8011)	SW-846 8011	1	191770020A	06/27/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191771404704A	06/28/2019 11:56	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191771404704	06/27/2019 06:30	Annamaria Kuhns	1

Sample Description: S-13_20190619 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/19/2019 11:15

Stantec
ELLE Sample #: GW 1088324
ELLE Group #: 2050556
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	1,200 E	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	400	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1

The concentration reported for t-Butyl alcohol is estimated since it exceeds the calibration range of the instrument. A further diluted analysis was performed from a previously opened container with headspace and/or outside of the method holding time and confirms the initial analysis.

GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1

Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1

A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/TMBs	SW-846 8260B	1	Z191842AA	07/03/2019 14:16	Anita M Dale	1

Sample Description: **S-13_20190619 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/19/2019 11:15

Stantec
ELLE Sample #: GW 1088324
ELLE Group #: 2050556
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z191842AA	07/03/2019 14:15	Anita M Dale	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19177WAA026	06/28/2019 00:15	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19177WAA026	06/26/2019 19:30	Christine E Gleim	1
10398	EDB in Wastewater	SW-846 8011	1	191770020A	06/29/2019 12:37	Richard A Shober	1
07786	EDB Extraction (8011)	SW-846 8011	1	191770020A	06/27/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191761404702A	07/01/2019 19:17	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191761404702	06/26/2019 14:35	JoElla L Rice	1

Sample Description: S-284D_20190619 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/19/2019 14:15

Stantec
ELLE Sample #: GW 1088325
ELLE Group #: 2050556
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.6 J	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1

A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z191834AA	07/03/2019 00:24	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z191834AA	07/03/2019 00:23	Hu Yang	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19177WAA026	06/28/2019 00:44	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19177WAA026	06/26/2019 19:30	Christine E Gleim	1

Sample Description: **S-284D_20190619 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/19/2019 14:15

Stantec
ELLE Sample #: GW 1088325
ELLE Group #: 2050556
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	EDB in Wastewater	SW-846 8011	1	191770020A	06/29/2019 12:53	Richard A Shober	1
07786	EDB Extraction (8011)	SW-846 8011	1	191770020A	06/27/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191771404704A	06/28/2019 11:40	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191771404704	06/27/2019 06:30	Annamaria Kuhns	1

Sample Description: S-280D_20190620 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/20/2019 10:15

Stantec
ELLE Sample #: GW 1088326
ELLE Group #: 2050556
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1

A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191842AA	07/03/2019 13:58	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191842AA	07/03/2019 13:57	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19177WAA026	06/28/2019 01:13	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19177WAA026	06/26/2019 19:30	Christine E Gleim	1

Sample Description: **S-280D_20190620 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/20/2019 10:15

Stantec
ELLE Sample #: GW 1088326
ELLE Group #: 2050556
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	EDB in Wastewater	SW-846 8011	1	191770020A	06/29/2019 13:09	Richard A Shober	1
07786	EDB Extraction (8011)	SW-846 8011	1	191770020A	06/27/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191761404702A	07/01/2019 19:19	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191761404702	06/26/2019 14:35	JoElla L Rice	1

Sample Description: S-20_20190620 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/20/2019 13:15

Stantec
ELLE Sample #: GW 1088327
ELLE Group #: 2050556
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	0.4 J	0.2	1
10945	t-Butyl alcohol	75-65-0	770	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	0.4 J	0.2	1
10945	Isopropylbenzene	98-82-8	16	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	41	0.2	1
10945	Toluene	108-88-3	2	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	6	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	0.5	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	1	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	1	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1

A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191842AA	07/03/2019 15:04	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191842AA	07/03/2019 15:03	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19177WAA026	06/28/2019 18:31	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19177WAA026	06/26/2019 19:30	Christine E Gleim	1

Sample Description: **S-20_20190620 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/24/2019 18:25
Collection Date/Time: 06/20/2019 13:15

Stantec
ELLE Sample #: GW 1088327
ELLE Group #: 2050556
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	EDB in Wastewater	SW-846 8011	1	191770020A	06/29/2019 13:25	Richard A Shober	1
07786	EDB Extraction (8011)	SW-846 8011	1	191770020A	06/27/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191761404702A	07/01/2019 19:22	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191761404702	06/26/2019 14:35	JoElla L Rice	1

Quality Control Summary

Client Name: Stantec
Reported: 07/06/2019 12:07

Group Number: 2050556

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	ug/l	ug/l
Batch number: F191842AA	Sample number(s): 1088323,1088326-1088327	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.5
Batch number: F191861AA	Sample number(s): 1088314	
t-Butyl alcohol	N.D.	10
1,2-Dichloroethane	N.D.	2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
Batch number: Z191834AA	Sample number(s): 1088308-1088311,1088316-1088320,1088325	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
1,2-Dibromoethane	N.D.	0.3
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.5
Batch number: Z191842AA	Sample number(s): 1088308,1088310-1088315,1088318,1088321-1088322,1088324	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Stantec
Reported: 07/06/2019 12:07

Group Number: 2050556

Method Blank (continued)

Analysis Name	Result	MDL
	ug/l	ug/l
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.5
Batch number: Z191844AA	Sample number(s): 1088312-1088313	
t-Butyl alcohol	N.D.	10
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.5
Batch number: 19177WAA026	Sample number(s): 1088308-1088315,1088317-1088327	
Anthracene	N.D.	0.1
Benzo(a)anthracene	N.D.	0.1
Benzo(a)pyrene	N.D.	0.1
Benzo(b)fluoranthene	N.D.	0.1
Benzo(g,h,i)perylene	N.D.	0.1
Chrysene	N.D.	0.1
Fluorene	N.D.	0.1
Naphthalene	N.D.	0.1
Phenanthrene	N.D.	0.1
Pyrene	N.D.	0.1
Batch number: 191770020A	Sample number(s): 1088308-1088315,1088317-1088327	
Ethylene dibromide	N.D.	0.010
Batch number: 191761404702A	Sample number(s): 1088308-1088310,1088312,1088315,1088317-1088322,1088324,1088326-1088327	
Lead	N.D.	1.1
Batch number: 191771404704A	Sample number(s): 1088311,1088313-1088314,1088323,1088325	
Lead	N.D.	1.1

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F191842AA	Sample number(s): 1088323,1088326-1088327								
Benzene	20	20.22	20	20.31	101	102	80-120	0	30
t-Butyl alcohol	200	191.89	200	195.26	96	98	60-130	2	30
1,2-Dichloroethane	20	18.52	20	19.07	93	95	73-124	3	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Stantec
Reported: 07/06/2019 12:07

Group Number: 2050556

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Ethylbenzene	20	19.4	20	19.4	97	97	80-120	0	30
Isopropylbenzene	20	19.42	20	19.5	97	97	80-120	0	30
Methyl Tertiary Butyl Ether	20	20.24	20	19.9	101	100	69-122	2	30
Toluene	20	19.5	20	20.61	98	103	80-120	6	30
1,2,4-Trimethylbenzene	20	19.06	20	19.59	95	98	75-120	3	30
1,3,5-Trimethylbenzene	20	18.77	20	19.45	94	97	75-120	4	30
Xylene (Total)	60	59.25	60	59.56	99	99	80-120	1	30
Batch number: F191861AA	Sample number(s): 1088314								
t-Butyl alcohol	200	184.29			92		60-130		
1,2-Dichloroethane	20	17.99			90		73-124		
Isopropylbenzene	20	19.94			100		80-120		
Methyl Tertiary Butyl Ether	20	18.8			94		69-122		
Toluene	20	20.57			103		80-120		
Batch number: Z191834AA	Sample number(s): 1088308-1088311,1088316-1088320,1088325								
Benzene	20	18.33	20	18.3	92	91	80-120	0	30
t-Butyl alcohol	200	186.6	200	183.81	93	92	60-130	2	30
1,2-Dibromoethane	20	18.08	20	18.4	90	92	77-120	2	30
1,2-Dichloroethane	20	21.86	20	21.28	109	106	73-124	3	30
Ethylbenzene	20	17.08	20	17.45	85	87	80-120	2	30
Isopropylbenzene	20	16.81	20	17.57	84	88	80-120	4	30
Methyl Tertiary Butyl Ether	20	20.67	20	20.31	103	102	69-122	2	30
Toluene	20	18.09	20	18.75	90	94	80-120	4	30
1,2,4-Trimethylbenzene	20	17.17	20	17.05	86	85	75-120	1	30
1,3,5-Trimethylbenzene	20	16.73	20	16.47	84	82	75-120	2	30
Xylene (Total)	60	50.91	60	53.17	85	89	80-120	4	30
Batch number: Z191842AA	Sample number(s): 1088308,1088310-1088315,1088318,1088321-1088322,1088324								
Benzene	20	20.31			102		80-120		
t-Butyl alcohol	200	180.85			90		60-130		
1,2-Dichloroethane	20	22.42			112		73-124		
Ethylbenzene	20	18.22			91		80-120		
Isopropylbenzene	20	18.28			91		80-120		
Methyl Tertiary Butyl Ether	20	23.42			117		69-122		
Toluene	20	19.41			97		80-120		
1,2,4-Trimethylbenzene	20	18.29			91		75-120		
1,3,5-Trimethylbenzene	20	18.47			92		75-120		
Xylene (Total)	60	54.74			91		80-120		
Batch number: Z191844AA	Sample number(s): 1088312-1088313								
t-Butyl alcohol	200	175.04	200	174.56	88	87	60-130	0	30
1,2-Dichloroethane	20	22.33	20	21.42	112	107	73-124	4	30
Ethylbenzene	20	17.89	20	17.22	89	86	80-120	4	30
Isopropylbenzene	20	17.9	20	17.37	89	87	80-120	3	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
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Quality Control Summary

Client Name: Stantec
Reported: 07/06/2019 12:07

Group Number: 2050556

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Methyl Tertiary Butyl Ether	20	22.62	20	22.58	113	113	69-122	0	30
Toluene	20	18.92	20	18.24	95	91	80-120	4	30
1,2,4-Trimethylbenzene	20	17.35	20	16.54	87	83	75-120	5	30
1,3,5-Trimethylbenzene	20	16.96	20	16.24	85	81	75-120	4	30
Xylene (Total)	60	54.39	60	52.96	91	88	80-120	3	30
	ug/l	**ug/l**	**ug/l**	**ug/l**					
Batch number: 19177WAA026	Sample number(s): 1088308-1088315,1088317-1088327								
Anthracene	50	49.61	50	46.37	99	93	67-112	7	30
Benzo(a)anthracene	50	51.38	50	49.31	103	99	70-118	4	30
Benzo(a)pyrene	50	50.58	50	48.03	101	96	71-117	5	30
Benzo(b)fluoranthene	50	51.78	50	49.29	104	99	71-115	5	30
Benzo(g,h,i)perylene	50	51.08	50	49.16	102	98	62-113	4	30
Chrysene	50	50.62	50	47.91	101	96	69-116	6	30
Fluorene	50	46.64	50	42.96	93	86	62-110	8	30
Naphthalene	50	40.09	50	38.21	80	76	53-99	5	30
Phenanthrene	50	49.1	50	46.58	98	93	65-113	5	30
Pyrene	50	50.77	50	48.12	102	96	68-110	5	30
	ug/l	**ug/l**	**ug/l**	**ug/l**					
Batch number: 191770020A	Sample number(s): 1088308-1088315,1088317-1088327								
Ethylene dibromide	0.128	0.119	0.128	0.118	93	92	60-140	1	20
	ug/l	**ug/l**	**ug/l**	**ug/l**					
Batch number: 191761404702A	Sample number(s): 1088308-1088310,1088312,1088315,1088317-1088322,1088324,1088326-1088327								
Lead	15	14.92			99		90-110		
Batch number: 191771404704A	Sample number(s): 1088311,1088313-1088314,1088323,1088325								
Lead	15	14.73			98		90-110		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: F191842AA	Sample number(s): 1088323,1088326-1088327 UNSPK: 1088326									
Benzene	N.D.	20	20.74	20	22.31	104	112	80-120	7	30
t-Butyl alcohol	N.D.	200	166.71	200	192.14	83	96	60-130	14	30
1,2-Dichloroethane	N.D.	20	18.58	20	19.18	93	96	73-124	3	30
Ethylbenzene	N.D.	20	19.67	20	21.1	98	105	80-120	7	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P####### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Stantec
Reported: 07/06/2019 12:07

Group Number: 2050556

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Isopropylbenzene	N.D.	20	20.1	20	21.5	101	107	80-120	7	30
Methyl Tertiary Butyl Ether	N.D.	20	18.64	20	20.5	93	103	69-122	9	30
Toluene	N.D.	20	20.34	20	22.09	102	110	80-120	8	30
1,2,4-Trimethylbenzene	N.D.	20	19.3	20	20.32	96	102	75-120	5	30
1,3,5-Trimethylbenzene	N.D.	20	19.29	20	20.35	96	102	75-120	5	30
Xylene (Total)	N.D.	60	61.44	60	65.71	102	110	80-120	7	30
Batch number: F191861AA	Sample number(s): 1088314 UNSPK: P089957									
t-Butyl alcohol	N.D.	200	181.21	200	186.8	91	93	60-130	3	30
1,2-Dichloroethane	N.D.	20	19.36	20	19.98	97	100	73-124	3	30
Isopropylbenzene	0.359	20	21.92	20	22.15	108	109	80-120	1	30
Methyl Tertiary Butyl Ether	N.D.	20	19.41	20	20.06	97	100	69-122	3	30
Toluene	N.D.	20	22.3	20	22.12	111	111	80-120	1	30
Batch number: Z191842AA	Sample number(s): 1088308,1088310-1088315,1088318,1088321-1088322,1088324 UNSPK: P087839									
Benzene	N.D.	20	21.05	20	20.66	105	103	80-120	2	30
t-Butyl alcohol	N.D.	200	176.39	200	175.51	88	88	60-130	1	30
1,2-Dichloroethane	N.D.	20	22.61	20	22.13	113	111	73-124	2	30
Ethylbenzene	N.D.	20	19.2	20	18.75	96	94	80-120	2	30
Isopropylbenzene	N.D.	20	19.04	20	18.95	95	95	80-120	0	30
Methyl Tertiary Butyl Ether	N.D.	20	22.22	20	22.32	111	112	69-122	0	30
Toluene	N.D.	20	19.36	20	19.49	97	97	80-120	1	30
1,2,4-Trimethylbenzene	N.D.	20	18.18	20	17.9	91	90	75-120	2	30
1,3,5-Trimethylbenzene	N.D.	20	18.23	20	18.28	91	91	75-120	0	30
Xylene (Total)	N.D.	60	56.55	60	55.87	94	93	80-120	1	30
	ug/l	**ug/l**	**ug/l**	**ug/l**	**ug/l**					
Batch number: 191770020A	Sample number(s): 1088308-1088315,1088317-1088327 UNSPK: 1088308									
Ethylene dibromide	N.D.	0.123	0.129			105		60-140		
	ug/l	**ug/l**	**ug/l**	**ug/l**	**ug/l**					
Batch number: 191761404702A	Sample number(s): 1088308-1088310,1088312,1088315,1088317-1088322,1088324,1088326-1088327 UNSPK: 1088320									
Lead	N.D.	15	16.01	15	15.32	107	102	75-125	4	20
Batch number: 191771404704A	Sample number(s): 1088311,1088313-1088314,1088323,1088325 UNSPK: 1088325									
Lead	N.D.	15	14.81	15	14.91	99	99	75-125	1	20

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P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Stantec
Reported: 07/06/2019 12:07

Group Number: 2050556

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc	DUP Conc	DUP RPD	DUP RPD Max
	ug/l	ug/l		
Batch number: 191770020A	Sample number(s): 1088308-1088315,1088317-1088327 BKG: 1088309			
Ethylene dibromide	N.D.	N.D.	0 (1)	30
	ug/l	ug/l		
Batch number: 191761404702A	Sample number(s): 1088308-1088310,1088312,1088315,1088317-1088322,1088324,1088326-1088327 BKG: 1088320			
Lead	N.D.	N.D.	0 (1)	20
Batch number: 191771404704A	Sample number(s): 1088311,1088313-1088314,1088323,1088325 BKG: 1088325			
Lead	N.D.	N.D.	0 (1)	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: F191842AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1088323	98	95	96	92
1088326	97	101	97	89
1088327	93	100	98	102
Blank	95	99	98	91
LCS	94	98	99	93
LCSD	95	100	98	94
MS	98	102	100	98
MSD	96	97	97	95
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: F191861AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1088314	95	90	99	102
Blank	99	95	99	91
LCS	93	93	97	92
MS	96	99	100	101
MSD	96	99	97	102
Limits:	80-120	80-120	80-120	80-120

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Quality Control Summary

Client Name: Stantec
Reported: 07/06/2019 12:07

Group Number: 2050556

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: Z191834AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1088308	110	99	101	100
1088309	108	99	105	105
1088310	109	99	101	104
1088311	108	96	100	109
1088316	115	103	98	97
1088317	108	97	99	99
1088318	106	93	102	103
1088319	109	97	101	100
1088320	110	97	100	101
1088325	113	102	100	98
Blank	116	104	99	95
LCS	111	97	100	102
LCSD	109	102	103	105
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: Z191842AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1088314	111	97	99	104
1088315	110	98	100	97
1088321	110	99	101	101
1088322	113	100	100	100
1088324	114	101	99	100
Blank	114	99	99	97
LCS	110	103	100	103
MS	110	100	100	103
MSD	110	99	101	103
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: Z191844AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1088312	111	99	101	101
1088313	109	100	101	102
Blank	114	103	99	98
LCS	110	100	101	105
LCSD	111	100	100	103
Limits:	80-120	80-120	80-120	80-120

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Quality Control Summary

Client Name: Stantec
Reported: 07/06/2019 12:07

Group Number: 2050556

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PAHs 8270C MINI
Batch number: 19177WAA026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
1088308	72	72	74
1088309	80	78	78
1088310	71	72	82
1088311	80	82	80
1088312	82	78	84
1088313	81	75	84
1088314	79	78	78
1088315	79	80	74
1088317	75	77	73
1088318	80	77	61
1088319	71	68	54
1088320	75	79	65
1088321	77	78	70
1088322	80	80	66
1088323	79	80	69
1088324	76	78	64
1088325	85	84	67
1088326	84	82	60
1088327	77	73	58
Blank	82	76	85
LCS	92	86	99
LCSD	89	83	99
Limits:	35-107	44-102	33-126

Analysis Name: EDB in Wastewater
Batch number: 191770020A

	1,1,2,2-Tetrachloroethane-D1	1,1,2,2-Tetrachloroethane-D2
1088308	108	125
1088309	118	135
1088310	113	149*
1088311	116	151*
1088312	103	255*
1088313	106	252*
1088314	101	134
1088315	92	85
1088317	94	95
1088318	116	104
1088319	109	115
1088320	104	102
1088321	96	96
1088322	82	86

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
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P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Stantec
Reported: 07/06/2019 12:07

Group Number: 2050556

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: EDB in Wastewater
Batch number: 191770020A

	1,1,2,2-Tetrachloroethane-D1	1,1,2,2-Tetrachloroethane-D2
1088323	91	80
1088324	75	65
1088325	78	76
1088326	82	84
1088327	89	91
Blank	85	83
DUP	119	138*
LCS	81	78
LCSD	79	76
MS	111	131
Limits:	46-136	46-136

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Environmental Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories Environmental use only

Acct. # 10057 Group # 2050556 Sample # 10PE308-27

COC #586743

Client Information

Client: Stantec

Acct. #: 10057 (Evergreen c/o Stantec)

Project Name/#: 2019 Annual GWS PHL

PWSID #:

Project Manager: Jennifer Menges

P.O. #: 213402429

Sampler: Dane Hoffins

Quote #:

State where samples were collected: PA

For Compliance: Yes ☐ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ | Water ☒ Potable ☐ Ground ☐ NPDES ☐ Surface ☐ | Other: Trip Blank

Analysis Requested

Preservation and Filtration Codes: H | H | N | | H

For Lab Use Only

FSC:

SCR#:

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks

K for list of analytes refer to attached Evergreen Short List

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	Evergreen VOC 8260	EDB 8011	Dissolved Lead (Field Filtered)	PAH 8270	TBA 8260
S-377-20190619	6/19/19	0955	X		8	X	X	X	X	X
S-378-20190619		1045	X		8	X	X	X	X	X
S-374-20190619		1150	X		8	X	X	X	X	X
S-375-20190619		1250	X		8	X	X	X	X	X
RW-701-20190620	6/20/19	0935	X		8	X	X	X	X	X
RW-703-20190620		1030	X		8	X	X	X	X	X
RW-708-20190620		1130	X		8	X	X	X	X	X
RW-715-20190620		1205	X		8	X	X	X	X	X
TB-20190620	6/5/19	—			TB 2	X				X

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days:

E-mail address: Jennifer.Menges@stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) ~~Type VI (Raw Data Only)~~

Type III (Reduced non-CLP) NJ DKQP TX TRRP-13

NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
	6/24/19	1145		6/24/19	1145
	6/24/19	1825			
				Date	Time
				6/24/19	1825

EDD Required? Yes No

If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other ____

Temperature upon receipt 23/35 °C

Environmental Analysis Request/Chain of Custody

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Acct. # 16657 Group # 2050556 Sample # 1088308-27

COC # 586744

Client Information

Client: Stantec	Acct. #: Evergreen 16657 40 Stantec
Project Name/#: 2019 Annual GWS PHL	PWSID #:
Project Manager: Jennifer Menges	P.O. #: 213402429
Sampler: Dana Hoblitzell	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: ____

Analysis Requested — Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Water	Other	Total # of Containers	Evergreen 16C 8260 (H)	TBA 8260 (H)	EDB 8011	Disolved Lead (N)	PAH 8270						Remarks
S-230-20190619	6/19/19	0925	X			X		8	X	X	X	X	X						
S-418-20190619	6/19/19	1055	X			X		8	X	X	X	X	X						
DUP2-20190619	6/19/19	1055	X			X		8	X	X	X	X	X						
S-369-20190619	6/19/19	1300	X			X		8	X	X	X	X	X						
S-396-20190620	6/20/19	1005	X			X		8	X	X	X	X	X						
S-39D-20190620	6/20/19	1140	X			X		8	X	X	X	X	X						
S-38D2-20190620	6/20/19	1235	X			X		8	X	X	X	X	X						

For Lab Use Only
FSC: ____
SCR#: ____

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks
Lead is Field Filtered. Evergreen Petroleum Shortlist.

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: ____

E-mail address: Jennifer.Menges@Stantec.com

Relinquished by	Date	Time	Received by	Date	Time
Bottle Storage			[signature]		
[signature]	6/24/19	1145	[signature]	6/24/19	1145
[signature]	6/24/19	1825			
			[signature]	6/24/19	1825

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

EDD Required? Yes No
If yes, format: EQuis

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: X
UPS ____ FedEx ____ Other ____

Temperature upon receipt 23/35 °C

Environmental Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories Environmental use only

Acct. # 16657 Group # 2050556 Sample # 10BB308-27

COC # 586538

Client Information

Client: Stantec

Acct. #: 16657 Evergreen c/o Stantec

Project Name/#: 2019 Annual GWS PHC

PWSID #:

Project Manager: Jennifer Menges

P.O. #: 2134024129

Sampler: Dawton Campbell

Quote #:

State where samples were collected: PA

For Compliance: Yes ☐ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ | Water ☒ Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: ____

Analysis Requested

Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	Evergreen VOC 8260 (H)	EDB 8011 (H)	Dissolved Lead (Field Filtered)	PAH 8270	TBA 8260 (H)
S-13_20190619	06/19	11:15	X		8	X	X	X	X	X
S-28D_20190619	06/19	1415	X		8	X	X	X	X	X
S-28D-20190620	06/20	1015	X		8	X	X	X	X	X
S-20_20190620	06/20	1315	X		8	X	X	X	X	X

For Lab Use Only

FSC:

SCR#: 244053

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks

* Lead field filtered
* for list of analytes refer to attached Evergreen Short List

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: ____

E-mail address: Jennifer.Menges@Stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)

Type III (Reduced non-CLP) NJ DKQP TX TRRP-13

NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
	6/24/19	1145		6/24/19	1145
	6/24/19	1825		Date	Time
	Date	Time		Date	Time
	Date	Time		Date	Time
	Date	Time		Date	Time
				6/24/19	1825

EDD Required? Yes No

If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other ____

Temperature upon receipt 2.3/3.5 °C

A116057 G.20508565.1088308-27

Evergreen Petroleum Short List (June 2016)

VOCs by EPA Method 8260	CAS No.
Benzene	71-43-2
Cumene	98-82-8
Dichloroethane, 1,2-	107-06-2
Ethylbenzene	100-41-4
Ethylene Dibromide*	106-93-4
Methyl tert butyl ether	1634-04-4
Toluene	108-88-3
Trimethylbenzene, 1,2,4-	95-63-6
Trimethylbenzene, 1,3,5-	108-67-8
Xylenes	1330-20-7

SVOCs by EPA Method 8270	CAS No.
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Chrysene	218-01-9
Fluorene	86-73-7
Naphthalene**	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Metals by Method 6010/6020	CAS No.
Lead***	7439-92-1

*Ethylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

**Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

***Metals analysis should be total in soil and dissolved in groundwater.

This list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline and No. 1, 2, 4, 5, 6 Fuel Oils).

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Sample Administration Receipt Documentation Log

Doc Log ID: 252320

Group Number(s): 2050556

Client: Stantec

2019 Annual GWS PHL

Delivery and Receipt Information

Delivery Method:	ELLE Courier	Arrival Timestamp:	06/24/2019 18:25
Number of Packages:	2	Number of Projects:	1
State/Province of Origin:	PA		

Arrival Condition Summary

Shipping Container Sealed:	No	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	VOA Vial Headspace ≥ 6mm:	N/A
Paperwork Enclosed:	Yes	Total Trip Blank Qty:	2
Samples Intact:	Yes	Trip Blank Type:	HCl
Missing Samples:	No	Air Quality Samples Present:	No
Extra Samples:	No		
Discrepancy in Container Qty on COC:	Yes		

Unpacked by Nicole Reiff (25684) at 08:40 on 06/25/2019

Samples Chilled Details: 2019 Annual GWS PHL

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT146	2.3	DT	Wet	Y	Bagged	N
2	DT146	3.5	DT	Wet	Y	Bagged	N

Container Quantity Discrepancy Details: 2019 Annual GWS PHL

Sample ID on COC	Container Qty. Received	Container Qty. on COC	Comments
S-39D_20190620	7	8	
S-284D_20190619	7	8	

General Comments: S-280D-20190620 1 bottle filled an inch full. No breakage.

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report
B	Detection in the Blank
Q0	LCS/LCSD Low
Q1	LCS/LCSD High
Q2	MS/MSD Low
Q3	MS/MSD High
Q7	LCS/LCSD RPD
Q8	DUP RPD
Q9	MS/MSD RPD

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

Report Date: July 15, 2019 17:10

Project: 2019 Annual GWS PHL

Account #: 16657
Group Number: 2051366
PO Number: 213402429
State of Sample Origin: PA

Electronic Copy To	Evergreen c/o Stantec	Attn: Jennifer Menges
Electronic Copy To	Evergreen c/o Stantec	Attn: Andrew Bradley

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

To view our laboratory's current scopes of accreditation please go to https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/ . Historical copies may be requested through your project manager.



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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
S-218D_20190626 Grab Groundwater	06/26/2019 09:50	1091964
S-69D_20190626 Grab Groundwater	06/26/2019 12:25	1091965
S-411_20190626 Grab Groundwater	06/26/2019 13:40	1091966
S-280_20190626 Grab Groundwater	06/26/2019 14:40	1091967
A-134_20190627 Grab Groundwater	06/27/2019 10:15	1091968
A-140_20190627 Grab Groundwater	06/27/2019 11:35	1091969
A-139_20190627 Grab Groundwater	06/27/2019 13:05	1091970
A-182_20190628 Grab Groundwater	06/28/2019 09:20	1091971
A-19D_20190628 Grab Groundwater	06/28/2019 11:45	1091972
N-75_20190626 Grab Groundwater	06/26/2019 10:40	1091973
N-2_20190626 Grab Groundwater	06/26/2019 12:55	1091974
N-3_20190626 Grab Groundwater	06/26/2019 14:15	1091975
DUP-4_20190627 Grab Groundwater	06/27/2019	1091976
B-43_20190627 Grab Groundwater	06/27/2019 12:55	1091977
S-249_20190627 Grab Groundwater	06/27/2019 10:10	1091978
S-38_20190628 Grab Groundwater	06/28/2019 09:55	1091979
S-223_20190628 Grab Groundwater	06/28/2019 11:05	1091980

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Sample Description: **S-218D_20190626 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/28/2019 16:15
Collection Date/Time: 06/26/2019 09:50

Evergreen c/o Stantec
ELLE Sample #: GW 1091964
ELLE Group #: 2051366
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	41	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191892AA	07/08/2019 16:42	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191892AA	07/08/2019 16:41	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19183WAD026	07/09/2019 06:00	Brandon K Cordova	1
07807	BNA Water Extraction	SW-846 3510C	1	19183WAD026	07/02/2019 17:05	Osvaldo R Sanchez	1
10398	EDB in Wastewater	SW-846 8011	1	191820014A	07/03/2019 02:43	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191820014A	07/02/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191821404708A	07/03/2019 08:29	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191821404708	07/02/2019 05:00	James L Mertz	1

Sample Description: **S-69D_20190626 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/28/2019 16:15
Collection Date/Time: 06/26/2019 12:25

Evergreen c/o Stantec
ELLE Sample #: GW 1091965
ELLE Group #: 2051366
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	3	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191892AA	07/08/2019 17:04	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191892AA	07/08/2019 17:03	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19183WAD026	07/09/2019 16:18	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19183WAD026	07/02/2019 17:05	Osvaldo R Sanchez	1
10398	EDB in Wastewater	SW-846 8011	1	191820014A	07/03/2019 02:58	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191820014A	07/02/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191821404708A	07/03/2019 08:31	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191821404708	07/02/2019 05:00	James L Mertz	1

Sample Description: S-411_20190626 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/28/2019 16:15
Collection Date/Time: 06/26/2019 13:40

Evergreen c/o Stantec
ELLE Sample #: GW 1091966
ELLE Group #: 2051366
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	0.9 J	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191892AA	07/08/2019 17:26	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191892AA	07/08/2019 17:25	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19183WAD026	07/09/2019 16:48	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19183WAD026	07/02/2019 17:05	Osvaldo R Sanchez	1
10398	EDB in Wastewater	SW-846 8011	1	191820014A	07/03/2019 03:14	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191820014A	07/02/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191821404708A	07/03/2019 08:06	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191821404708	07/02/2019 05:00	James L Mertz	1

Sample Description: S-280_20190626 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/28/2019 16:15
Collection Date/Time: 06/26/2019 14:40

Evergreen c/o Stantec
ELLE Sample #: GW 1091967
ELLE Group #: 2051366
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	52,000	200	1000
10945	t-Butyl alcohol	75-65-0	N.D.	1,000	100
10945	1,2-Dichloroethane	107-06-2	N.D.	200	100
10945	Ethylbenzene	100-41-4	N.D.	20	100
10945	Isopropylbenzene	98-82-8	N.D.	30	100
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	20	100
10945	Toluene	108-88-3	68 J	20	100
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	30	100
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	30	100
10945	Xylene (Total)	1330-20-7	N.D.	50	100
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.09	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.09	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.09	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.09	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.09	1
14249	Chrysene	218-01-9	N.D.	0.09	1
14249	Fluorene	86-73-7	0.1 J	0.09	1
14249	Naphthalene	91-20-3	2	0.09	1
14249	Phenanthrene	85-01-8	0.3 J	0.09	1
14249	Pyrene	129-00-0	N.D.	0.09	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191892AA	07/08/2019 17:48	Alexander D Sechrist	100
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191892AA	07/08/2019 18:10	Alexander D Sechrist	1000
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191892AA	07/08/2019 17:47	Alexander D Sechrist	100
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F191892AA	07/08/2019 18:09	Alexander D Sechrist	1000
14249	PAHs 8270C MINI	SW-846 8270C	1	19183WAD026	07/09/2019 17:18	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19183WAD026	07/02/2019 17:05	Osvaldo R Sanchez	1
10398	EDB in Wastewater	SW-846 8011	1	191820014A	07/03/2019 03:30	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191820014A	07/02/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191821404708A	07/03/2019 08:33	Choon Y Tian	1

Sample Description: **S-280_20190626 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/28/2019 16:15
Collection Date/Time: 06/26/2019 14:40

Evergreen c/o Stantec
ELLE Sample #: GW 1091967
ELLE Group #: 2051366
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191821404708	07/02/2019 05:00	James L Mertz	1

Sample Description: **A-134_20190627 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/28/2019 16:15
Collection Date/Time: 06/27/2019 10:15

Evergreen c/o Stantec
ELLE Sample #: GW 1091968
ELLE Group #: 2051366
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	26	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	2	0.2	1
10945	Isopropylbenzene	98-82-8	110	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	16	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	5	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	3 J	0.3	1
10945	Xylene (Total)	1330-20-7	27	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	0.4 J	0.09	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.09	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.09	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.09	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.09	1
14249	Chrysene	218-01-9	N.D.	0.09	1
14249	Fluorene	86-73-7	2	0.09	1
14249	Naphthalene	91-20-3	N.D.	0.09	1
14249	Phenanthrene	85-01-8	N.D.	0.09	1
14249	Pyrene	129-00-0	1	0.09	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F191891AA	07/08/2019 18:01	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191891AA	07/08/2019 18:00	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19183WAD026	07/09/2019 17:48	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19183WAD026	07/02/2019 17:05	Osvaldo R Sanchez	1
10398	EDB in Wastewater	SW-846 8011	1	191820014A	07/03/2019 03:46	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191820014A	07/02/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191821404708A	07/03/2019 08:34	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191821404708	07/02/2019 05:00	James L Mertz	1

Sample Description: **A-140_20190627 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/28/2019 16:15
Collection Date/Time: 06/27/2019 11:35

Evergreen c/o Stantec
ELLE Sample #: GW 1091969
ELLE Group #: 2051366
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.09	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.09	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.09	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.09	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.09	1
14249	Chrysene	218-01-9	N.D.	0.09	1
14249	Fluorene	86-73-7	N.D.	0.09	1
14249	Naphthalene	91-20-3	N.D.	0.09	1
14249	Phenanthrene	85-01-8	N.D.	0.09	1
14249	Pyrene	129-00-0	N.D.	0.09	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F191891AA	07/08/2019 18:23	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191891AA	07/08/2019 18:22	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19183WAD026	07/09/2019 18:18	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19183WAD026	07/02/2019 17:05	Osvaldo R Sanchez	1
10398	EDB in Wastewater	SW-846 8011	1	191820014A	07/03/2019 04:02	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191820014A	07/02/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191821404708A	07/03/2019 08:36	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191821404708	07/02/2019 05:00	James L Mertz	1

Sample Description: **A-139_20190627 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/28/2019 16:15
Collection Date/Time: 06/27/2019 13:05

Evergreen c/o Stantec
ELLE Sample #: GW 1091970
ELLE Group #: 2051366
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	28.5	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F191902AA	07/09/2019 17:09	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191902AA	07/09/2019 17:08	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19183WAD026	07/09/2019 18:48	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19183WAD026	07/02/2019 17:05	Osvaldo R Sanchez	1
10398	EDB in Wastewater	SW-846 8011	1	191820014A	07/03/2019 04:17	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191820014A	07/02/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191821404708A	07/03/2019 08:38	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191821404708	07/02/2019 05:00	James L Mertz	1

Sample Description: **A-182_20190628 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/28/2019 16:15
Collection Date/Time: 06/28/2019 09:20

Evergreen c/o Stantec
ELLE Sample #: GW 1091971
ELLE Group #: 2051366
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	0.7 J	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	1 J	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.5 J	0.2	1
10945	Toluene	108-88-3	0.4 J	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	1 J	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	0.7 J	0.3	1
10945	Xylene (Total)	1330-20-7	2 J	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D. Q0Q7	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D. Q0Q7	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D. Q0Q7	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D. Q7	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D. Q7	0.1	1
14249	Chrysene	218-01-9	N.D. Q0Q7	0.1	1
14249	Fluorene	86-73-7	N.D. Q0Q7	0.1	1
14249	Naphthalene	91-20-3	N.D. Q7	0.1	1
14249	Phenanthrene	85-01-8	N.D. Q0Q7	0.1	1
14249	Pyrene	129-00-0	N.D. Q0Q7	0.1	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following action was taken:
The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial.

Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F191902AA	07/09/2019 17:31	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191902AA	07/09/2019 17:30	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19183WAW026	07/08/2019 21:00	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19183WAW026	07/03/2019 09:30	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191820014A	07/03/2019 05:05	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191820014A	07/02/2019 02:00	Mathias Okpo	1

Sample Description: **A-182_20190628 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/28/2019 16:15
Collection Date/Time: 06/28/2019 09:20

Evergreen c/o Stantec
ELLE Sample #: GW 1091971
ELLE Group #: 2051366
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	191821404708A	07/03/2019 08:40	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191821404708	07/02/2019 05:00	James L Mertz	1

Sample Description: **A-19D_20190628 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/28/2019 16:15
Collection Date/Time: 06/28/2019 11:45

Evergreen c/o Stantec
ELLE Sample #: GW 1091972
ELLE Group #: 2051366
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	330	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	20	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D. Q0Q7	0.09	1
14249	Benzo(a)anthracene	56-55-3	N.D. Q0Q7	0.09	1
14249	Benzo(a)pyrene	50-32-8	N.D. Q0Q7	0.09	1
14249	Benzo(b)fluoranthene	205-99-2	N.D. Q7	0.09	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D. Q7	0.09	1
14249	Chrysene	218-01-9	N.D. Q0Q7	0.09	1
14249	Fluorene	86-73-7	N.D. Q0Q7	0.09	1
14249	Naphthalene	91-20-3	N.D. Q7	0.09	1
14249	Phenanthrene	85-01-8	N.D. Q0Q7	0.09	1
14249	Pyrene	129-00-0	N.D. Q0Q7	0.09	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following action was taken:
The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial.

Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/TMBs	SW-846 8260B	1	F191902AA	07/09/2019 15:19	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191902AA	07/09/2019 15:18	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19183WAW026	07/08/2019 21:29	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19183WAW026	07/03/2019 09:30	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191820014A	07/03/2019 05:21	Jason Brumbaugh	1

Sample Description: **A-19D_20190628 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/28/2019 16:15
Collection Date/Time: 06/28/2019 11:45

Evergreen c/o Stantec
ELLE Sample #: GW 1091972
ELLE Group #: 2051366
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07786	EDB Extraction (8011)	SW-846 8011	1	191820014A	07/02/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191821404708A	07/03/2019 08:42	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191821404708	07/02/2019 05:00	James L Mertz	1

Sample Description: **N-75_20190626 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/28/2019 16:15
Collection Date/Time: 06/26/2019 10:40

Evergreen c/o Stantec
ELLE Sample #: GW 1091973
ELLE Group #: 2051366
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	6 J	2	10
10945	1,2-Dichloroethane	107-06-2	N.D.	20	10
10945	Ethylbenzene	100-41-4	N.D.	2	10
10945	Isopropylbenzene	98-82-8	N.D.	3	10
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	2	10
10945	Toluene	108-88-3	N.D.	2	10
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	3	10
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	3	10
10945	Xylene (Total)	1330-20-7	N.D.	5	10

Reporting limits were raised due to sample foaming.

GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	0.5	0.09	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.09	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.09	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.09	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.09	1
14249	Chrysene	218-01-9	N.D.	0.09	1
14249	Fluorene	86-73-7	3	0.09	1
14249	Naphthalene	91-20-3	0.7	0.09	1
14249	Phenanthrene	85-01-8	N.D.	0.09	1
14249	Pyrene	129-00-0	0.8	0.09	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following action was taken:
The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial.

Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F191902AA	07/09/2019 17:53	Alexander D Sechrist	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191902AA	07/09/2019 17:52	Alexander D Sechrist	10
14249	PAHs 8270C MINI	SW-846 8270C	1	19183WAD026	07/09/2019 19:17	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19183WAD026	07/02/2019 17:05	Osvaldo R Sanchez	1
10398	EDB in Wastewater	SW-846 8011	1	191820014A	07/03/2019 05:37	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191820014A	07/02/2019 02:00	Mathias Okpo	1

Sample Description: **N-75_20190626 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/28/2019 16:15
Collection Date/Time: 06/26/2019 10:40

Evergreen c/o Stantec
ELLE Sample #: GW 1091973
ELLE Group #: 2051366
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	191821404708A	07/03/2019 08:48	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191821404708	07/02/2019 05:00	James L Mertz	1

Sample Description: N-2_20190626 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/28/2019 16:15
Collection Date/Time: 06/26/2019 12:55

Evergreen c/o Stantec
ELLE Sample #: GW 1091974
ELLE Group #: 2051366
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	4 J	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	0.2 J	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	0.3 J	0.09	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.09	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.09	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.09	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.09	1
14249	Chrysene	218-01-9	N.D.	0.09	1
14249	Fluorene	86-73-7	1	0.09	1
14249	Naphthalene	91-20-3	0.4 J	0.09	1
14249	Phenanthrene	85-01-8	0.4 J	0.09	1
14249	Pyrene	129-00-0	0.8	0.09	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F191891AA	07/08/2019 15:48	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191891AA	07/08/2019 15:47	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19183WAD026	07/09/2019 19:48	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19183WAD026	07/02/2019 17:05	Osvaldo R Sanchez	1
10398	EDB in Wastewater	SW-846 8011	1	191820014A	07/03/2019 05:52	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191820014A	07/02/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191821404708A	07/03/2019 08:50	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191821404708	07/02/2019 05:00	James L Mertz	1

Sample Description: N-3_20190626 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/28/2019 16:15
Collection Date/Time: 06/26/2019 14:15

Evergreen c/o Stantec
ELLE Sample #: GW 1091975
ELLE Group #: 2051366
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	0.7 J	0.2	1
10945	Isopropylbenzene	98-82-8	0.6 J	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	0.4 J	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	1 J	0.3	1
10945	Xylene (Total)	1330-20-7	1 J	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	1	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F191891AA	07/08/2019 16:10	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191891AA	07/08/2019 16:09	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19183WAD026	07/09/2019 20:18	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19183WAD026	07/02/2019 17:05	Osvaldo R Sanchez	1
10398	EDB in Wastewater	SW-846 8011	1	191820014A	07/03/2019 06:08	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191820014A	07/02/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191821404708A	07/03/2019 08:51	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191821404708	07/02/2019 05:00	James L Mertz	1

Sample Description: DUP-4_20190627 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/28/2019 16:15
Collection Date/Time: 06/27/2019

Evergreen c/o Stantec
ELLE Sample #: GW 1091976
ELLE Group #: 2051366
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D. Q7	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F191891AA	07/08/2019 16:32	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191891AA	07/08/2019 16:31	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19183WAO026	07/06/2019 20:49	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19183WAO026	07/03/2019 02:00	Mathias Okpo	1
10398	EDB in Wastewater	SW-846 8011	1	191820017A	07/08/2019 15:43	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191820017A	07/02/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191821404708A	07/03/2019 08:53	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191821404708	07/02/2019 05:00	James L Mertz	1

Sample Description: B-43_20190627 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/28/2019 16:15
Collection Date/Time: 06/27/2019 12:55

Evergreen c/o Stantec
ELLE Sample #: GW 1091977
ELLE Group #: 2051366
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	8	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	3 J	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	0.5 J	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.09	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.09	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.09	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.09	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D. Q7	0.09	1
14249	Chrysene	218-01-9	N.D.	0.09	1
14249	Fluorene	86-73-7	N.D.	0.09	1
14249	Naphthalene	91-20-3	N.D.	0.09	1
14249	Phenanthrene	85-01-8	N.D.	0.09	1
14249	Pyrene	129-00-0	0.6	0.09	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F191891AA	07/08/2019 16:55	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191891AA	07/08/2019 16:54	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19183WAO026	07/08/2019 23:30	Brandon K Cordova	1
07807	BNA Water Extraction	SW-846 3510C	1	19183WAO026	07/03/2019 02:00	Mathias Okpo	1
10398	EDB in Wastewater	SW-846 8011	1	191820017A	07/08/2019 16:14	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191820017A	07/02/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191821404708A	07/03/2019 08:55	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191821404708	07/02/2019 05:00	James L Mertz	1

Sample Description: S-249_20190627 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/28/2019 16:15
Collection Date/Time: 06/27/2019 10:10

Evergreen c/o Stantec
ELLE Sample #: GW 1091978
ELLE Group #: 2051366
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.09	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.09	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.09	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.09	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D. Q7	0.09	1
14249	Chrysene	218-01-9	N.D.	0.09	1
14249	Fluorene	86-73-7	N.D.	0.09	1
14249	Naphthalene	91-20-3	N.D.	0.09	1
14249	Phenanthrene	85-01-8	N.D.	0.09	1
14249	Pyrene	129-00-0	N.D.	0.09	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F191891AA	07/08/2019 17:17	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191891AA	07/08/2019 17:16	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19183WAO026	07/09/2019 00:00	Brandon K Cordova	1
07807	BNA Water Extraction	SW-846 3510C	1	19183WAO026	07/03/2019 02:00	Mathias Okpo	1
10398	EDB in Wastewater	SW-846 8011	1	191820017A	07/08/2019 16:46	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191820017A	07/02/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191821404708A	07/03/2019 08:57	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191821404708	07/02/2019 05:00	James L Mertz	1

Sample Description: S-38_20190628 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/28/2019 16:15
Collection Date/Time: 06/28/2019 09:55

Evergreen c/o Stantec
ELLE Sample #: GW 1091979
ELLE Group #: 2051366
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	
10945	Benzene	71-43-2	120		1	5
10945	t-Butyl alcohol	75-65-0	92	J	50	5
10945	1,2-Dichloroethane	107-06-2	N.D.		10	5
10945	Ethylbenzene	100-41-4	110		1	5
10945	Isopropylbenzene	98-82-8	17	J	2	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		1	5
10945	Toluene	108-88-3	230		1	5
10945	1,2,4-Trimethylbenzene	95-63-6	28		2	5
10945	1,3,5-Trimethylbenzene	108-67-8	12	J	2	5
10945	Xylene (Total)	1330-20-7	150		3	5
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	
14249	Anthracene	120-12-7	N.D.	Q0Q7	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	Q0Q7	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	Q0Q7	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	Q7	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	Q7	0.1	1
14249	Chrysene	218-01-9	N.D.	Q0Q7	0.1	1
14249	Fluorene	86-73-7	0.1	J Q0Q7	0.1	1
14249	Naphthalene	91-20-3	25	Q7	0.1	1
14249	Phenanthrene	85-01-8	0.1	J Q0Q7	0.1	1
14249	Pyrene	129-00-0	N.D.	Q0Q7	0.1	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following action was taken:
The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial.

Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D.	D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	
06035	Lead	7439-92-1	N.D.		1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/TMBs	SW-846 8260B	1	F191902AA	07/09/2019 15:41	Alexander D Sechrist	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191902AA	07/09/2019 15:40	Alexander D Sechrist	5
14249	PAHs 8270C MINI	SW-846 8270C	1	19183WAW026	07/08/2019 21:58	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19183WAW026	07/03/2019 09:30	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191820017A	07/08/2019 17:02	Jason Brumbaugh	1

Sample Description: **S-38_20190628 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/28/2019 16:15
Collection Date/Time: 06/28/2019 09:55

Evergreen c/o Stantec
ELLE Sample #: GW 1091979
ELLE Group #: 2051366
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07786	EDB Extraction (8011)	SW-846 8011	1	191820017A	07/02/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191821404708A	07/03/2019 08:59	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191821404708	07/02/2019 05:00	James L Mertz	1

Sample Description: S-223_20190628 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 06/28/2019 16:15
Collection Date/Time: 06/28/2019 11:05

Evergreen c/o Stantec
ELLE Sample #: GW 1091980
ELLE Group #: 2051366
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	2,200	4	20
10945	t-Butyl alcohol	75-65-0	170 J	100	10
10945	1,2-Dichloroethane	107-06-2	N.D.	20	10
10945	Ethylbenzene	100-41-4	410	2	10
10945	Isopropylbenzene	98-82-8	15 J	3	10
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	2	10
10945	Toluene	108-88-3	310	2	10
10945	1,2,4-Trimethylbenzene	95-63-6	600	3	10
10945	1,3,5-Trimethylbenzene	108-67-8	210	3	10
10945	Xylene (Total)	1330-20-7	990	5	10
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D. Q0Q7	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D. Q0Q7	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D. Q0Q7	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D. Q7	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D. Q7	0.1	1
14249	Chrysene	218-01-9	N.D. Q0Q7	0.1	1
14249	Fluorene	86-73-7	1 Q0Q7	0.1	1
14249	Naphthalene	91-20-3	99 Q7	0.1	1
14249	Phenanthrene	85-01-8	0.6 Q0Q7	0.1	1
14249	Pyrene	129-00-0	N.D. Q0Q7	0.1	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following action was taken:
The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial.

Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	0.014 JD1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/TMBs	SW-846 8260B	1	F191902AA	07/09/2019 16:03	Alexander D Sechrist	20
10945	BTEX/MTBE/Cumene/EDC/TBA/TMBs	SW-846 8260B	1	F191904AA	07/10/2019 06:45	Hu Yang	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191902AA	07/09/2019 16:02	Alexander D Sechrist	20
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F191904AA	07/10/2019 06:44	Hu Yang	10

Sample Description: **S-223_20190628 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 06/28/2019 16:15
Collection Date/Time: 06/28/2019 11:05

Evergreen c/o Stantec
ELLE Sample #: GW 1091980
ELLE Group #: 2051366
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14249	PAHs 8270C MINI	SW-846 8270C	1	19183WAW026	07/08/2019 22:27	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19183WAW026	07/03/2019 09:30	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191820017A	07/08/2019 17:18	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191820017A	07/02/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191821404709A	07/02/2019 21:02	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191821404709	07/02/2019 04:58	James L Mertz	1

Quality Control Summary

Client Name: Evergreen c/o Stantec Group Number: 2051366
Reported: 07/15/2019 17:10

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	ug/l	ug/l
Batch number: F191891AA	Sample number(s): 1091968-1091969,1091974-1091978	
Benzene	N.D.	0.2
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.5
Batch number: F191892AA	Sample number(s): 1091964-1091967	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.5
Batch number: F191902AA	Sample number(s): 1091970-1091973,1091979-1091980	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.5
Batch number: F191904AA	Sample number(s): 1091980	
t-Butyl alcohol	N.D.	10
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 07/15/2019 17:10

Group Number: 2051366

Method Blank (continued)

Analysis Name	Result	MDL
	ug/l	ug/l
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.5
Batch number: 19183WAD026	Sample number(s): 1091964-1091970,1091973-1091975	
Anthracene	N.D.	0.1
Benzo(a)anthracene	N.D.	0.1
Benzo(a)pyrene	N.D.	0.1
Benzo(b)fluoranthene	N.D.	0.1
Benzo(g,h,i)perylene	N.D.	0.1
Chrysene	N.D.	0.1
Fluorene	N.D.	0.1
Naphthalene	N.D.	0.1
Phenanthrene	N.D.	0.1
Pyrene	N.D.	0.1
Batch number: 19183WAO026	Sample number(s): 1091976-1091978	
Anthracene	N.D.	0.1
Benzo(a)anthracene	N.D.	0.1
Benzo(a)pyrene	N.D.	0.1
Benzo(b)fluoranthene	N.D.	0.1
Benzo(g,h,i)perylene	N.D.	0.1
Chrysene	N.D.	0.1
Fluorene	N.D.	0.1
Naphthalene	N.D.	0.1
Phenanthrene	N.D.	0.1
Pyrene	N.D.	0.1
Batch number: 19183WAW026	Sample number(s): 1091971-1091972,1091979-1091980	
Anthracene	N.D.	0.1
Benzo(a)anthracene	N.D.	0.1
Benzo(a)pyrene	N.D.	0.1
Benzo(b)fluoranthene	N.D.	0.1
Benzo(g,h,i)perylene	N.D.	0.1
Chrysene	N.D.	0.1
Fluorene	N.D.	0.1
Naphthalene	N.D.	0.1
Phenanthrene	N.D.	0.1
Pyrene	N.D.	0.1
Batch number: 191820014A	Sample number(s): 1091964-1091975	
Ethylene dibromide	N.D.	0.010
Batch number: 191820017A	Sample number(s): 1091976-1091980	
Ethylene dibromide	N.D.	0.010
Batch number: 191821404708A	Sample number(s): 1091964-1091979	

*- Outside of specification
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Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 07/15/2019 17:10

Group Number: 2051366

Method Blank (continued)

Analysis Name	Result	MDL
	ug/l	ug/l
Lead	N.D.	1.1
Batch number: 191821404709A	Sample number(s): 1091980	
Lead	N.D.	1.1

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F191891AA	Sample number(s): 1091968-1091969,1091974-1091978								
Benzene	20	20.33			102		80-120		
1,2-Dichloroethane	20	16.43			82		73-124		
Ethylbenzene	20	19.55			98		80-120		
Isopropylbenzene	20	19.6			98		80-120		
Methyl Tertiary Butyl Ether	20	18.02			90		69-122		
Toluene	20	20.01			100		80-120		
1,2,4-Trimethylbenzene	20	19.71			99		75-120		
1,3,5-Trimethylbenzene	20	19.53			98		75-120		
Xylene (Total)	60	60.21			100		80-120		
Batch number: F191892AA	Sample number(s): 1091964-1091967								
Benzene	20	20.39			102		80-120		
t-Butyl alcohol	200	184.26			92		60-130		
1,2-Dichloroethane	20	16.38			82		73-124		
Ethylbenzene	20	19.66			98		80-120		
Isopropylbenzene	20	19.4			97		80-120		
Methyl Tertiary Butyl Ether	20	19.08			95		69-122		
Toluene	20	19.91			100		80-120		
1,2,4-Trimethylbenzene	20	19.64			98		75-120		
1,3,5-Trimethylbenzene	20	19.06			95		75-120		
Xylene (Total)	60	59.72			100		80-120		
Batch number: F191902AA	Sample number(s): 1091970-1091973,1091979-1091980								
Benzene	20	20.77			104		80-120		
t-Butyl alcohol	200	181.07			91		60-130		
1,2-Dichloroethane	20	17.27			86		73-124		
Ethylbenzene	20	19.66			98		80-120		
Isopropylbenzene	20	19.34			97		80-120		
Methyl Tertiary Butyl Ether	20	19.82			99		69-122		
Toluene	20	20.33			102		80-120		
1,2,4-Trimethylbenzene	20	19.6			98		75-120		
1,3,5-Trimethylbenzene	20	19.92			100		75-120		

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.
P####### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 07/15/2019 17:10

Group Number: 2051366

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Xylene (Total)	60	60.71			101		80-120		
Batch number: F191904AA	Sample number(s): 1091980								
t-Butyl alcohol	200	185.43			93		60-130		
1,2-Dichloroethane	20	17.05			85		73-124		
Ethylbenzene	20	20.02			100		80-120		
Isopropylbenzene	20	19.84			99		80-120		
Methyl Tertiary Butyl Ether	20	20.29			101		69-122		
Toluene	20	20.94			105		80-120		
1,2,4-Trimethylbenzene	20	19.99			100		75-120		
1,3,5-Trimethylbenzene	20	20.43			102		75-120		
Xylene (Total)	60	61.9			103		80-120		
	ug/l	ug/l	ug/l	ug/l					
Batch number: 19183WAD026	Sample number(s): 1091964-1091970,1091973-1091975								
Anthracene	50	41.25	50	44.23	83	88	67-112	7	30
Benzo(a)anthracene	50	42.87	50	49.55	86	99	70-118	14	30
Benzo(a)pyrene	50	45.21	50	46.89	90	94	71-117	4	30
Benzo(b)fluoranthene	50	48.44	50	45.96	97	92	71-115	5	30
Benzo(g,h,i)perylene	50	48.3	50	49.89	97	100	62-113	3	30
Chrysene	50	45.25	50	46.38	91	93	69-116	2	30
Fluorene	50	38.9	50	39.66	78	79	62-110	2	30
Naphthalene	50	38.48	50	39.53	77	79	53-99	3	30
Phenanthrene	50	43.36	50	44.07	87	88	65-113	2	30
Pyrene	50	43.47	50	47.4	87	95	68-110	9	30
Batch number: 19183WAO026	Sample number(s): 1091976-1091978								
Anthracene	50	39.01	50	41.42	78	83	67-112	6	30
Benzo(a)anthracene	50	40.91	50	49.79	82	100	70-118	20	30
Benzo(a)pyrene	50	38.22	50	46.91	76	94	71-117	20	30
Benzo(b)fluoranthene	50	37.31	50	44.77	75	90	71-115	18	30
Benzo(g,h,i)perylene	50	32.36	50	49.46	65	99	62-113	42*	30
Chrysene	50	41.42	50	51.35	83	103	69-116	21	30
Fluorene	50	34.7	50	37.05	69	74	62-110	7	30
Naphthalene	50	33.9	50	37.28	68	75	53-99	9	30
Phenanthrene	50	37.12	50	42.48	74	85	65-113	13	30
Pyrene	50	41.15	50	46.57	82	93	68-110	12	30
Batch number: 19183WAW026	Sample number(s): 1091971-1091972,1091979-1091980								
Anthracene	50	48.52	50	31.38	97	63*	67-112	43*	30
Benzo(a)anthracene	50	49.89	50	34.01	100	68*	70-118	38*	30
Benzo(a)pyrene	50	49.89	50	34.92	100	70*	71-117	35*	30
Benzo(b)fluoranthene	50	49.69	50	35.76	99	72	71-115	33*	30
Benzo(g,h,i)perylene	50	50.87	50	34.99	102	70	62-113	37*	30
Chrysene	50	50.31	50	34.07	101	68*	69-116	38*	30

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 07/15/2019 17:10

Group Number: 2051366

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Fluorene	50	46.51	50	30.27	93	61*	62-110	42*	30
Naphthalene	50	42.68	50	27.16	85	54	53-99	44*	30
Phenanthrene	50	47.87	50	31.56	96	63*	65-113	41*	30
Pyrene	50	49.19	50	33.53	98	67*	68-110	38*	30
	ug/l	**ug/l**	**ug/l**	**ug/l**					
Batch number: 191820014A	Sample number(s): 1091964-1091975								
Ethylene dibromide	0.128	0.101	0.128	0.109	79	85	60-140	7	20
Batch number: 191820017A	Sample number(s): 1091976-1091980								
Ethylene dibromide	0.128	0.123	0.128	0.107	96	83	60-140	14	20
	ug/l	**ug/l**	**ug/l**	**ug/l**					
Batch number: 191821404708A	Sample number(s): 1091964-1091979								
Lead	15	15.73			105		90-110		
Batch number: 191821404709A	Sample number(s): 1091980								
Lead	15	15.89			106		90-110		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: F191891AA	Sample number(s): 1091968-1091969,1091974-1091978 UNSPK: P094358									
Benzene	0.445	20	22.14	20	21.79	108	107	80-120	2	30
1,2-Dichloroethane	N.D.	20	16.71	20	16.41	84	82	73-124	2	30
Ethylbenzene	2.80	20	23.85	20	23.4	105	103	80-120	2	30
Isopropylbenzene	11.75	20	32.47	20	32.14	104	102	80-120	1	30
Methyl Tertiary Butyl Ether	0.496	20	18.66	20	18.67	91	91	69-122	0	30
Toluene	0.212	20	21.93	20	21.28	109	105	80-120	3	30
1,2,4-Trimethylbenzene	0.708	20	22.47	20	21.08	109	102	75-120	6	30
1,3,5-Trimethylbenzene	0.386	20	22.03	20	21.4	108	105	75-120	3	30
Xylene (Total)	N.D.	60	64.6	60	62.91	108	105	80-120	3	30
Batch number: F191892AA	Sample number(s): 1091964-1091967 UNSPK: P091938									
Benzene	0.423	20	23.31	20	23.45	114	115	80-120	1	30
t-Butyl alcohol	N.D.	200	187.71	200	185.18	94	93	60-130	1	30
1,2-Dichloroethane	N.D.	20	17.86	20	17.58	89	88	73-124	2	30
Ethylbenzene	N.D.	20	21.99	20	21.54	110	108	80-120	2	30

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 07/15/2019 17:10

Group Number: 2051366

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Isopropylbenzene	N.D.	20	22.44	20	21.68	112	108	80-120	3	30
Methyl Tertiary Butyl Ether	N.D.	20	20.71	20	20.77	104	104	69-122	0	30
Toluene	0.503	20	22.63	20	23.04	111	113	80-120	2	30
1,2,4-Trimethylbenzene	N.D.	20	21.53	20	22.06	108	110	75-120	2	30
1,3,5-Trimethylbenzene	N.D.	20	21.85	20	21.9	109	110	75-120	0	30
Xylene (Total)	N.D.	60	65.83	60	66.35	110	111	80-120	1	30
Batch number: F191902AA	Sample number(s): 1091970-1091973,1091979-1091980 UNSPK: P092660									
Benzene	N.D.	20	22.59	20	23.47	113	117	80-120	4	30
t-Butyl alcohol	75.61	200	257.6	200	256.26	91	90	60-130	1	30
1,2-Dichloroethane	N.D.	20	17.61	20	18.29	88	91	73-124	4	30
Ethylbenzene	N.D.	20	21.28	20	21.49	106	107	80-120	1	30
Isopropylbenzene	0.308	20	21.59	20	22.38	106	110	80-120	4	30
Methyl Tertiary Butyl Ether	10.84	20	31.34	20	32.06	103	106	69-122	2	30
Toluene	N.D.	20	22.17	20	22.64	111	113	80-120	2	30
1,2,4-Trimethylbenzene	N.D.	20	21.32	20	22.08	107	110	75-120	3	30
1,3,5-Trimethylbenzene	N.D.	20	21.41	20	22.02	107	110	75-120	3	30
Xylene (Total)	N.D.	60	65.37	60	67.13	109	112	80-120	3	30
Batch number: F191904AA	Sample number(s): 1091980 UNSPK: P092739									
t-Butyl alcohol	110.58	1000	959.23	1000	902.86	85	79	60-130	6	30
1,2-Dichloroethane	N.D.	100	82.49	100	83.17	82	83	73-124	1	30
Ethylbenzene	304.94	100	417.72	100	409.44	113	105	80-120	2	30
Isopropylbenzene	34.92	100	140.97	100	136.35	106	101	80-120	3	30
Methyl Tertiary Butyl Ether	N.D.	100	98.87	100	95.98	99	96	69-122	3	30
Toluene	67.66	100	178.13	100	171.92	110	104	80-120	4	30
1,2,4-Trimethylbenzene	61.82	100	170.38	100	165.35	109	104	75-120	3	30
1,3,5-Trimethylbenzene	83.17	100	193.84	100	186.16	111	103	75-120	4	30
Xylene (Total)	227.13	300	556.75	300	536.31	110	103	80-120	4	30
	ug/l	**ug/l**	**ug/l**	**ug/l**	**ug/l**					
Batch number: 191820014A	Sample number(s): 1091964-1091975 UNSPK: P091945									
Ethylene dibromide	N.D.	0.121	0.121			99		60-140		
Batch number: 191820017A	Sample number(s): 1091976-1091980 UNSPK: 1091976									
Ethylene dibromide	N.D.	0.121	0.121			101		60-140		
	ug/l	**ug/l**	**ug/l**	**ug/l**	**ug/l**					
Batch number: 191821404708A	Sample number(s): 1091964-1091979 UNSPK: 1091966									
Lead	N.D.	15	15.75	15	15.46	105	103	75-125	2	20
Batch number: 191821404709A	Sample number(s): 1091980 UNSPK: P091439									
Lead	N.D.	15	16.09	15	15.99	107	107	75-125	1	20

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P####### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 07/15/2019 17:10

Group Number: 2051366

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc	DUP Conc	DUP RPD	DUP RPD Max
	ug/l	ug/l		
Batch number: 191820014A	Sample number(s): 1091964-1091975 BKG: P091946			
Ethylene dibromide	N.D.	N.D.	0 (1)	30
Batch number: 191820017A	Sample number(s): 1091976-1091980 BKG: 1091977			
Ethylene dibromide	N.D.	N.D.	0 (1)	30
	ug/l	ug/l		
Batch number: 191821404708A	Sample number(s): 1091964-1091979 BKG: 1091966			
Lead	N.D.	N.D.	0 (1)	20
Batch number: 191821404709A	Sample number(s): 1091980 BKG: P091439			
Lead	N.D.	N.D.	0 (1)	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX/MTBE/Cumene/EDC/TMBs
Batch number: F191891AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1091968	94	93	101	106
1091969	97	93	100	92
1091974	97	97	100	96
1091975	95	92	100	93
1091976	97	98	99	91
1091977	99	96	100	97
1091978	100	98	100	91
Blank	98	95	100	93
LCS	97	94	100	93
MS	93	93	101	99
MSD	99	101	101	101
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: F191892AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1091964	96	97	100	95

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 07/15/2019 17:10

Group Number: 2051366

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: F191892AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1091965	97	101	98	93
1091966	96	96	100	92
1091967	96	98	99	92
Blank	97	96	100	92
LCS	96	97	102	96
MS	97	99	100	99
MSD	96	99	102	95
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TMBs
Batch number: F191902AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1091970	96	96	98	94
1091971	98	95	97	92
1091972	99	99	98	94
1091973	98	95	98	93
1091979	93	94	98	93
Blank	96	95	100	91
LCS	95	98	99	96
MS	97	101	99	94
MSD	96	103	99	97
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: F191904AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1091980	96	98	99	96
Blank	98	97	100	92
LCS	96	98	100	96
MS	94	96	100	96
MSD	94	95	98	95
Limits:	80-120	80-120	80-120	80-120

Analysis Name: PAHs 8270C MINI
Batch number: 19183WAD026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
1091964	76	91	55
1091965	86	88	51
1091966	71	81	58

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P####### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 07/15/2019 17:10

Group Number: 2051366

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PAHs 8270C MINI
Batch number: 19183WAD026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
1091967	74	76	53
1091968	76	80	46
1091969	88	93	57
1091970	85	89	56
1091973	88	88	32*
1091974	89	91	54
1091975	93	97	58
Blank	67	78	75
LCS	73	90	89
LCSD	76	90	94
Limits:	35-107	44-102	33-126

Analysis Name: PAHs 8270C MINI
Batch number: 19183WAO026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
1091976	76	92	77
1091977	70	80	68
1091978	73	86	63
Blank	83	95	74
LCS	72	88	80
LCSD	88	96	93
Limits:	35-107	44-102	33-126

Analysis Name: PAHs 8270C MINI
Batch number: 19183WAW026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
1091971	94	89	78
1091972	87	80	57
1091979	90	84	73
1091980	74	72	63
Blank	83	81	91
LCS	86	84	95
LCSD	58	54	73
Limits:	35-107	44-102	33-126

Analysis Name: EDB in Wastewater
Batch number: 191820014A

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 07/15/2019 17:10

Group Number: 2051366

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: EDB in Wastewater
Batch number: 191820014A

	1,1,2,2-Tetrachloroethane-D1	1,1,2,2-Tetrachloroethane-D2
1091964	91	91
1091965	85	86
1091966	84	100
1091967	82	86
1091968	114	131
1091969	85	79
1091970	76	74
1091971	83	81
1091972	74	72
1091973	134	131
1091974	91	95
1091975	87	84
Blank	89	86
DUP	81	83
LCS	82	77
LCSD	86	81
MS	99	99
Limits:	46-136	46-136

Analysis Name: EDB in Wastewater
Batch number: 191820017A

	1,1,2,2-Tetrachloroethane-D1	1,1,2,2-Tetrachloroethane-D2
1091976	95	96
1091977	97	92
1091978	97	93
1091979	115	172*
1091980	115	178*
Blank	93	91
DUP	99	97
LCS	95	96
LCSD	88	88
MS	98	97
Limits:	46-136	46-136

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Environmental Analysis Request/Chain of Custody

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Acct. # 166657 Group # 2051366 Sample # 1097964-80

COC #586797

Client Information

Client: Stantec
Acct. #: Evergreen c/o 166657 Stantec
Project Name/#: 2019 Annual GWS PHL
PWSID #:
Project Manager: Jennifer Menges
P.O. #: 213402429
Sampler: Dana Hollitzell
Quote #:
State where samples were collected: PA
For Compliance: Yes ☐ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ Water ☒ Potable ☐ Ground ☐ NPDES ☐ Surface ☐ Other: ____

Analysis Requested

Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	Evergreen VOC 8260 (H)	EDB 8011 (H)	Dissolved Lead (N)	PAH 8270	TBA 8260 (H)
S-218D_20190626	6/26	0950	X		8	X	X	X	X	X
S-69D_20190626	6/26	1225	X		8	X	X	X	X	X
S-411_20190626	6/26	1340	X		8	X	X	X	X	X
S-280_20190626	6/26	1440	X		8	X	X	X	X	X
A-134-20190627	6/27	1015	X		8	X	X	X	X	
A-140_20190627	6/27	1135	X		8	X	X	X	X	
A-139_20190627	6/27	1305	X		8	X	X	X	X	
A-182_20190628	6/28	0920	X		8	X	X	X	X	
A-192_20190628	6/28	1145	X		8	X	X	X	X	X

For Lab Use Only
FSC:
SCR#:

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks
* Lead Field filtered
* For list of analyses refer to attached Evergreen short list

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: ____

E-mail address: Jennifer.Menges@Stantec.com

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
	6/28/19	1218		6/28/19	1218
	6/28/19	1615			
				6-28-19	1815

EDD Required? Yes No
If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:
UPS ____ FedEx ____ Other ____

Temperature upon receipt 8-25.9 °C

Environmental Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories Environmental use only
Acct. # 116657 Group # 2051306 Sample # 1019604-80

COC #586799

Client Information

Client: Stantec
Acct. #: Evergreen c/o Stantec 116657
Project Name/#: 2019 Annual GWS PHL
PWSID #:
Project Manager: Jennifer Menges
P.O. #: 2134024 29
Sampler: Doulton Campbell
Quote #:
State where samples were collected: PA
For Compliance: Yes ☐ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ | Water ☒ Potable ☐ Ground ☐ NPDES ☐ Surface ☐ | Other: | Total # of Containers

Analysis Requested

Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	Evergreen VOC 8260 (H)	PCB 8082 (H)	Dissolved lead (Field Filtered) (N)	PAH 8270	TDA 8270 (H)
N-75_20190626	0626	1040	X		8	X	X	X	X	
N-2-20190626	0626	1255	X		8	X	X	X	X	
N-3_20190626	0626	1415	X		8	X	X	X	X	
MW-4_20190627	0627		X		8	X	X	X	X	
B-43_20190627	0627	1255	X		8	X	X	X	X	
~~S-264~~ S-249-20190627	0627	1010	X		8	X	X	X	X	
S-38_2019 0628	0628	0955	X		8	X	X	X	X	X
S-223_20190628	0628	1105	X		5	X	X	X	X	X

For Lab Use Only

FSC:
SCR#:

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days:

E-mail address: Jennifer.Menges@Stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
	6/28/19	1218		6/28/19	1218
	6/28/19	1615			
				6/28/19	1615

EDD Required? (Yes) No
If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:
UPS _____ FedEx _____ Other _____

Temperature upon receipt 5.8-5.9 °C

Evergreen Petroleum Short List (June 2016)

VOCs by EPA Method 8260	CAS No.
Benzene	71-43-2
Cumene	98-82-8
Dichloroethane, 1,2-	107-06-2
Ethylbenzene	100-41-4
Ethylene Dibromide*	106-93-4
Methyl tert butyl ether	1634-04-4
Toluene	108-88-3
Trimethylbenzene, 1,2,4-	95-63-6
Trimethylbenzene, 1,3,5-	108-67-8
Xylenes	1330-20-7

SVOCs by EPA Method 8270	CAS No.
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Chrysene	218-01-9
Fluorene	86-73-7
Naphthalene**	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Metals by Method 6010/6020	CAS No.
Lead***	7439-92-1

*Ethylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

**Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

***Metals analysis should be total in soil and dissolved in groundwater.

This list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline and No. 1, 2, 4, 5, 6 Fuel Oils).

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Sample Administration Receipt Documentation Log

Doc Log ID: 252809

Group Number(s): 2057360

Client: Stantec

Delivery and Receipt Information

Delivery Method:	ELLE Courier	Arrival Timestamp:	06/28/2019 16:15
Number of Packages:	3	Number of Projects:	1
State/Province of Origin:	PA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	Total Trip Blank Qty:	2
Paperwork Enclosed:	Yes	Trip Blank Type:	HCl
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	Yes		

Unpacked by Darian Jaynes (29952) at 18:58 on 06/28/2019

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT42-01	5.9	DT	Wet	Y	Bagged	N
2	DT42-01	2.6	DT	Wet	Y	Bagged	N
3	DT42-01	0.8	DT	Wet	Y	Bagged	N

Container Quantity Discrepancy Details

Sample ID on COC	Container Qty. Received	Container Qty. on COC	Comments
S-144SRTF_20190626	7	8	

2425 New Holland Pike
Lancaster, PA 17605-2425

T : 717-656-2300
F : 717-656-2681
www.LancasterLabs.co

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report
B	Detection in the Blank
Q0	LCS/LCSD Low
Q1	LCS/LCSD High
Q2	MS/MSD Low
Q3	MS/MSD High
Q7	LCS/LCSD RPD
Q8	DUP RPD
Q9	MS/MSD RPD

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

Report Date: July 17, 2019 11:49

Project: 2019 Annual GWS PHL

Account #: 16657
Group Number: 2052178
PO Number: 213402429
State of Sample Origin: PA

Electronic Copy To	Evergreen c/o Stantec	Attn: Jennifer Menges
Electronic Copy To	Evergreen c/o Stantec	Attn: Andrew Bradley

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

To view our laboratory's current scopes of accreditation please go to https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/ . Historical copies may be requested through your project manager.



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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
ARCO-1D_20190703 Grab Groundwater	07/03/2019 09:05	1095561
DUP-6_20190703 Grab Groundwater	07/03/2019	1095562
RW-26_20190703 Grab Groundwater	07/03/2019 10:20	1095563
W-13_20190701 Grab Groundwater	07/01/2019 09:50	1095564
W-12_20190701 Grab Groundwater	07/01/2019 10:55	1095565
URS-5_20190701 Grab Groundwater	07/01/2019 13:35	1095566
DUP-5_20190702 Grab Groundwater	07/02/2019	1095567
S-75_20190702 Grab Groundwater	07/02/2019 10:05	1095568
MW-38_20190702 Grab Groundwater	07/02/2019 11:20	1095569
MW-37_20190702 Grab Groundwater	07/02/2019 13:45	1095570
TW-5_20190703 Grab Groundwater	07/03/2019 10:45	1095571
W-32D_20190701 Grab Groundwater	07/01/2019 09:50	1095572
W-33_20190701 Grab Groundwater	07/01/2019 12:00	1095573
MW-44_20190701 Grab Groundwater	07/01/2019 13:45	1095574
N-74-SL_20190702 Grab Groundwater	07/02/2019 10:35	1095575
RW-502-SL_20190702 Grab Groundwater	07/02/2019 13:40	1095576
N-82-SL_20190703 Grab Groundwater	07/03/2019 11:00	1095577
W-32-SL_20190701 Grab Groundwater	07/01/2019 09:50	1095578
W-1_20190701 Grab Groundwater	07/01/2019 12:30	1095579
OW-19_20190701 Grab Groundwater	07/01/2019 14:00	1095580
S-357_SL_20190702 Grab Groundwater	07/02/2019 10:10	1095581
S-423_SL_20190702 Grab Groundwater	07/02/2019 11:30	1095582
S-355_SL_20190702 Grab Groundwater	07/02/2019 13:00	1095583
TB_20190703 Water	06/05/2019	1095584

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Sample Description: **ARCO-1D_20190703 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/03/2019 17:00
Collection Date/Time: 07/03/2019 09:05

Evergreen c/o Stantec
ELLE Sample #: GW 1095561
ELLE Group #: 2052178
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	3	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	66	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191923AA	07/12/2019 01:32	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191923AA	07/12/2019 01:31	Hu Yang	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19186WAI026	07/16/2019 14:23	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19186WAI026	07/06/2019 11:30	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191890015A	07/10/2019 13:25	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191890015A	07/09/2019 01:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191901404701A	07/10/2019 15:36	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191901404701	07/09/2019 05:03	James L Mertz	1

Sample Description: **DUP-6_20190703 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/03/2019 17:00
Collection Date/Time: 07/03/2019

Evergreen c/o Stantec
ELLE Sample #: GW 1095562
ELLE Group #: 2052178
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	3	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	66	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191923AA	07/12/2019 01:54	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191923AA	07/12/2019 01:53	Hu Yang	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19186WAI026	07/10/2019 04:02	Brandon K Cordova	1
07807	BNA Water Extraction	SW-846 3510C	1	19186WAI026	07/06/2019 11:30	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191890015A	07/10/2019 13:41	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191890015A	07/09/2019 01:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191891404706A	07/10/2019 12:21	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191891404706	07/08/2019 16:20	Barbara A Kane	1

Sample Description: **RW-26_20190703 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/03/2019 17:00
Collection Date/Time: 07/03/2019 10:20

Evergreen c/o Stantec
ELLE Sample #: GW 1095563
ELLE Group #: 2052178
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	1,000	10	50
10945	t-Butyl alcohol	75-65-0	8,700	500	50
10945	1,2-Dichloroethane	107-06-2	N.D.	10	5
10945	Ethylbenzene	100-41-4	230	1	5
10945	Isopropylbenzene	98-82-8	49	2	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	1,000	1	5
10945	Toluene	108-88-3	16	1	5
10945	1,2,4-Trimethylbenzene	95-63-6	400	2	5
10945	1,3,5-Trimethylbenzene	108-67-8	24 J	2	5
10945	Xylene (Total)	1330-20-7	380	3	5
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	3	0.1	1
14249	Benzo(a)anthracene	56-55-3	0.7	0.1	1
14249	Benzo(a)pyrene	50-32-8	0.6	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	0.8	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	0.6	0.1	1
14249	Chrysene	218-01-9	0.9	0.1	1
14249	Fluorene	86-73-7	12	0.1	1
14249	Naphthalene	91-20-3	930	2	20
14249	Phenanthrene	85-01-8	20	0.1	1
14249	Pyrene	129-00-0	4	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191923AA	07/12/2019 03:22	Hu Yang	5
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191933AA	07/13/2019 06:52	Hu Yang	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191923AA	07/12/2019 03:21	Hu Yang	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F191933AA	07/13/2019 06:51	Hu Yang	50
14249	PAHs 8270C MINI	SW-846 8270C	1	19186WAP026	07/10/2019 02:02	Brandon K Cordova	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19186WAP026	07/10/2019 08:45	Kira N Beck	20
07807	BNA Water Extraction	SW-846 3510C	1	19186WAP026	07/08/2019 10:30	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191890015A	07/10/2019 13:57	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191890015A	07/09/2019 01:00	Mathias Okpo	1

Sample Description: **RW-26_20190703 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/03/2019 17:00
Collection Date/Time: 07/03/2019 10:20

Evergreen c/o Stantec
ELLE Sample #: GW 1095563
ELLE Group #: 2052178
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	191891404706A	07/10/2019 12:40	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191891404706	07/08/2019 16:20	Barbara A Kane	1

Sample Description: **W-13_20190701 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/03/2019 17:00
Collection Date/Time: 07/01/2019 09:50

Evergreen c/o Stantec
ELLE Sample #: GW 1095564
ELLE Group #: 2052178
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.5 J	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F191902AA	07/09/2019 18:15	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191902AA	07/09/2019 18:14	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19186WAI026	07/10/2019 04:32	Brandon K Cordova	1
07807	BNA Water Extraction	SW-846 3510C	1	19186WAI026	07/06/2019 11:30	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191890015A	07/10/2019 14:13	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191890015A	07/09/2019 01:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191891404706A	07/10/2019 11:54	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191891404706	07/08/2019 16:20	Barbara A Kane	1

Sample Description: **W-12_20190701 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/03/2019 17:00
Collection Date/Time: 07/01/2019 10:55

Evergreen c/o Stantec
ELLE Sample #: GW 1095565
ELLE Group #: 2052178
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	0.2 J	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	0.3 J	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F191902AA	07/09/2019 18:37	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191902AA	07/09/2019 18:36	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19186WAI026	07/10/2019 05:03	Brandon K Cordova	1
07807	BNA Water Extraction	SW-846 3510C	1	19186WAI026	07/06/2019 11:30	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191900011A	07/10/2019 15:23	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191900011A	07/10/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191891404706A	07/10/2019 12:22	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191891404706	07/08/2019 16:20	Barbara A Kane	1

Sample Description: URS-5_20190701 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 07/03/2019 17:00
Collection Date/Time: 07/01/2019 13:35

Evergreen c/o Stantec
ELLE Sample #: GW 1095566
ELLE Group #: 2052178
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	3,300	10	50
10945	1,2-Dichloroethane	107-06-2	N.D.	10	5
10945	Ethylbenzene	100-41-4	530	1	5
10945	Isopropylbenzene	98-82-8	26	2	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	5
10945	Toluene	108-88-3	4,400	10	50
10945	1,2,4-Trimethylbenzene	95-63-6	240	2	5
10945	1,3,5-Trimethylbenzene	108-67-8	73	2	5
10945	Xylene (Total)	1330-20-7	2,300	25	50
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	4	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	14	0.1	1
14249	Naphthalene	91-20-3	180	0.5	5
14249	Phenanthrene	85-01-8	25	0.1	1
14249	Pyrene	129-00-0	4	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F191902AA	07/09/2019 18:59	Alexander D Sechrist	5
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F191902AA	07/09/2019 19:21	Alexander D Sechrist	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191902AA	07/09/2019 18:58	Alexander D Sechrist	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F191902AA	07/09/2019 19:20	Alexander D Sechrist	50
14249	PAHs 8270C MINI	SW-846 8270C	1	19186WAI026	07/10/2019 05:33	Brandon K Cordova	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19186WAI026	07/10/2019 09:45	Kira N Beck	5
07807	BNA Water Extraction	SW-846 3510C	1	19186WAI026	07/06/2019 11:30	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191900011A	07/10/2019 15:54	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191900011A	07/10/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191891404706A	07/10/2019 12:28	Choon Y Tian	1

Sample Description: **URS-5_20190701 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/03/2019 17:00
Collection Date/Time: 07/01/2019 13:35

Evergreen c/o Stantec
ELLE Sample #: GW 1095566
ELLE Group #: 2052178
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191891404706	07/08/2019 16:20	Barbara A Kane	1

Sample Description: **DUP-5_20190702 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/03/2019 17:00
Collection Date/Time: 07/02/2019

Evergreen c/o Stantec
ELLE Sample #: GW 1095567
ELLE Group #: 2052178
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	6	0.2	1
10945	t-Butyl alcohol	75-65-0	480	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	2	0.2	1
10945	Isopropylbenzene	98-82-8	29	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	22	0.2	1
10945	Toluene	108-88-3	2	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	0.5 J	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	6	0.3	1
10945	Xylene (Total)	1330-20-7	1 J	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	2	0.1	1
14249	Naphthalene	91-20-3	3	0.1	1
14249	Phenanthrene	85-01-8	2	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	2.5 J	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191923AA	07/12/2019 02:16	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191923AA	07/12/2019 02:15	Hu Yang	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19186WAI026	07/10/2019 06:03	Brandon K Cordova	1
07807	BNA Water Extraction	SW-846 3510C	1	19186WAI026	07/06/2019 11:30	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191900011A	07/10/2019 16:25	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191900011A	07/10/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191891404706A	07/10/2019 12:43	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191891404706	07/08/2019 16:20	Barbara A Kane	1

Sample Description: **S-75_20190702 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/03/2019 17:00
Collection Date/Time: 07/02/2019 10:05

Evergreen c/o Stantec
ELLE Sample #: GW 1095568
ELLE Group #: 2052178
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	6	0.2	1
10945	t-Butyl alcohol	75-65-0	410	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	2	0.2	1
10945	Isopropylbenzene	98-82-8	31	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	24	0.2	1
10945	Toluene	108-88-3	2	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	0.6 J	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	7	0.3	1
10945	Xylene (Total)	1330-20-7	1 J	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	3	0.1	1
14249	Naphthalene	91-20-3	1	0.1	1
14249	Phenanthrene	85-01-8	3	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	2.3 J	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191912AA	07/10/2019 11:11	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191912AA	07/10/2019 11:10	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19186WAI026	07/10/2019 10:15	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19186WAI026	07/06/2019 11:30	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191900011A	07/10/2019 16:41	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191900011A	07/10/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191891404706A	07/10/2019 12:47	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191891404706	07/08/2019 16:20	Barbara A Kane	1

Sample Description: **MW-38_20190702 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/03/2019 17:00
Collection Date/Time: 07/02/2019 11:20

Evergreen c/o Stantec
ELLE Sample #: GW 1095569
ELLE Group #: 2052178
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	3	0.2	1
10945	t-Butyl alcohol	75-65-0	50	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	2	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	0.4 J	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191912AA	07/10/2019 11:33	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191912AA	07/10/2019 11:32	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19186WAI026	07/10/2019 10:45	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19186WAI026	07/06/2019 11:30	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191900011A	07/10/2019 16:57	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191900011A	07/10/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191891404706A	07/10/2019 12:24	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191891404706	07/08/2019 16:20	Barbara A Kane	1

Sample Description: **MW-37_20190702 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/03/2019 17:00
Collection Date/Time: 07/02/2019 13:45

Evergreen c/o Stantec
ELLE Sample #: GW 1095570
ELLE Group #: 2052178
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	290,000	400	2000
10945	t-Butyl alcohol	75-65-0	N.D.	2,000	200
10945	1,2-Dichloroethane	107-06-2	N.D.	400	200
10945	Ethylbenzene	100-41-4	N.D.	40	200
10945	Isopropylbenzene	98-82-8	N.D.	60	200
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	40	200
10945	Toluene	108-88-3	560	40	200
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	60	200
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	60	200
10945	Xylene (Total)	1330-20-7	140 J	100	200
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.09	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.09	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.09	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.09	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.09	1
14249	Chrysene	218-01-9	N.D.	0.09	1
14249	Fluorene	86-73-7	0.4 J	0.09	1
14249	Naphthalene	91-20-3	5	0.09	1
14249	Phenanthrene	85-01-8	0.7	0.09	1
14249	Pyrene	129-00-0	0.3 J	0.09	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191923AA	07/12/2019 03:45	Hu Yang	200
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191923AA	07/12/2019 04:07	Hu Yang	2000
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191923AA	07/12/2019 03:44	Hu Yang	200
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F191923AA	07/12/2019 04:06	Hu Yang	2000
14249	PAHs 8270C MINI	SW-846 8270C	1	19186WAI026	07/10/2019 11:15	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19186WAI026	07/06/2019 11:30	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191900011A	07/10/2019 17:12	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191900011A	07/10/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191891404706A	07/10/2019 12:36	Choon Y Tian	1

Sample Description: **MW-37_20190702 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/03/2019 17:00
Collection Date/Time: 07/02/2019 13:45

Evergreen c/o Stantec
ELLE Sample #: GW 1095570
ELLE Group #: 2052178
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191891404706	07/08/2019 16:20	Barbara A Kane	1

Sample Description: **TW-5_20190703 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/03/2019 17:00
Collection Date/Time: 07/03/2019 10:45

Evergreen c/o Stantec
ELLE Sample #: GW 1095571
ELLE Group #: 2052178
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	850,000	1,000	5000
10945	t-Butyl alcohol	75-65-0	N.D.	5,000	500
10945	1,2-Dichloroethane	107-06-2	N.D.	1,000	500
10945	Ethylbenzene	100-41-4	410 J	100	500
10945	Isopropylbenzene	98-82-8	N.D.	150	500
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	100	500
10945	Toluene	108-88-3	8,700	100	500
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	150	500
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	150	500
10945	Xylene (Total)	1330-20-7	1,900 J	250	500
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	0.4 J	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	0.3 J	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	15	0.1	1
14249	Phenanthrene	85-01-8	1	0.1	1
14249	Pyrene	129-00-0	0.5	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D2	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191923AA	07/12/2019 04:28	Hu Yang	500
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191923AA	07/12/2019 04:50	Hu Yang	5000
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191923AA	07/12/2019 04:27	Hu Yang	500
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F191923AA	07/12/2019 04:49	Hu Yang	5000
14249	PAHs 8270C MINI	SW-846 8270C	1	19186WAP026	07/10/2019 02:32	Brandon K Cordova	1
07807	BNA Water Extraction	SW-846 3510C	1	19186WAP026	07/08/2019 10:30	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191900011A	07/10/2019 17:28	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191900011A	07/10/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191891404706A	07/10/2019 12:26	Choon Y Tian	1

Sample Description: **TW-5_20190703 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/03/2019 17:00
Collection Date/Time: 07/03/2019 10:45

Evergreen c/o Stantec
ELLE Sample #: GW 1095571
ELLE Group #: 2052178
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191891404706	07/08/2019 16:20	Barbara A Kane	1

Sample Description: **W-32D_20190701 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/03/2019 17:00
Collection Date/Time: 07/01/2019 09:50

Evergreen c/o Stantec
ELLE Sample #: GW 1095572
ELLE Group #: 2052178
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	1	5
10945	1,2-Dichloroethane	107-06-2	N.D.	10	5
10945	Ethylbenzene	100-41-4	N.D.	1	5
10945	Isopropylbenzene	98-82-8	N.D.	2	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	5
10945	Toluene	108-88-3	N.D.	1	5
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	2	5
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	2	5
10945	Xylene (Total)	1330-20-7	N.D.	3	5

The requirement for no headspace at the time of analysis was not met. The container used for the testing had headspace at the time of analysis.

Reporting limits were raised due to sample foaming.

GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	0.3 J	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	0.7	0.1	1
14249	Pyrene	129-00-0	0.9	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F191923AA	07/12/2019 03:00	Hu Yang	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191923AA	07/12/2019 02:59	Hu Yang	5
14249	PAHs 8270C MINI	SW-846 8270C	1	19186WAI026	07/10/2019 11:45	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19186WAI026	07/06/2019 11:30	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191900011A	07/10/2019 17:43	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191900011A	07/10/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191891404706A	07/10/2019 12:38	Choon Y Tian	1

Sample Description: **W-32D_20190701 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/03/2019 17:00
Collection Date/Time: 07/01/2019 09:50

Evergreen c/o Stantec
ELLE Sample #: GW 1095572
ELLE Group #: 2052178
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191891404706	07/08/2019 16:20	Barbara A Kane	1

Sample Description: **W-33_20190701 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/03/2019 17:00
Collection Date/Time: 07/01/2019 12:00

Evergreen c/o Stantec
ELLE Sample #: GW 1095573
ELLE Group #: 2052178
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	36	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	3	0.2	1
10945	Isopropylbenzene	98-82-8	3 J	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	1	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	12	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	3 J	0.3	1
10945	Xylene (Total)	1330-20-7	15	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	3	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	10	0.1	1
14249	Naphthalene	91-20-3	25	0.1	1
14249	Phenanthrene	85-01-8	11	0.1	1
14249	Pyrene	129-00-0	2	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F191912AA	07/10/2019 12:40	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191912AA	07/10/2019 12:39	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19186WAI026	07/10/2019 12:15	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19186WAI026	07/06/2019 11:30	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191900011A	07/10/2019 18:30	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191900011A	07/10/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191901404701A	07/15/2019 06:58	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191901404701	07/09/2019 05:03	James L Mertz	1

Sample Description: MW-44_20190701 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 07/03/2019 17:00
Collection Date/Time: 07/01/2019 13:45

Evergreen c/o Stantec
ELLE Sample #: GW 1095574
ELLE Group #: 2052178
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	8,700	40	200
10945	t-Butyl alcohol	75-65-0	740	200	20
10945	1,2-Dichloroethane	107-06-2	N.D.	40	20
10945	Ethylbenzene	100-41-4	990	4	20
10945	Isopropylbenzene	98-82-8	43 J	6	20
10945	Methyl Tertiary Butyl Ether	1634-04-4	120	4	20
10945	Toluene	108-88-3	220	4	20
10945	1,2,4-Trimethylbenzene	95-63-6	1,200	6	20
10945	1,3,5-Trimethylbenzene	108-67-8	360	6	20
10945	Xylene (Total)	1330-20-7	5,300	10	20
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	0.7	0.1	1
14249	Benzo(a)anthracene	56-55-3	0.7	0.1	1
14249	Benzo(a)pyrene	50-32-8	1	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	2	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	0.9	0.1	1
14249	Chrysene	218-01-9	2	0.1	1
14249	Fluorene	86-73-7	4	0.1	1
14249	Naphthalene	91-20-3	270	1	10
14249	Phenanthrene	85-01-8	6	0.1	1
14249	Pyrene	129-00-0	3	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	4.5	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191923AA	07/12/2019 05:12	Hu Yang	20
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191923AA	07/12/2019 05:34	Hu Yang	200
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191923AA	07/12/2019 05:11	Hu Yang	20
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F191923AA	07/12/2019 05:33	Hu Yang	200
14249	PAHs 8270C MINI	SW-846 8270C	1	19186WAI026	07/10/2019 12:45	Kira N Beck	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19186WAI026	07/10/2019 17:36	Brandon K Cordova	10
07807	BNA Water Extraction	SW-846 3510C	1	19186WAI026	07/06/2019 11:30	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191900011A	07/10/2019 18:46	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191900011A	07/10/2019 05:00	Mathias Okpo	1

Sample Description: **MW-44_20190701 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/03/2019 17:00
Collection Date/Time: 07/01/2019 13:45

Evergreen c/o Stantec
ELLE Sample #: GW 1095574
ELLE Group #: 2052178
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	191901404701A	07/15/2019 06:51	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191901404701	07/09/2019 05:03	James L Mertz	1

Sample Description: **N-74-SL_20190702 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/03/2019 17:00
Collection Date/Time: 07/02/2019 10:35

Evergreen c/o Stantec
ELLE Sample #: GW 1095575
ELLE Group #: 2052178
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	670	1	5
10945	1,2-Dichloroethane	107-06-2	N.D.	10	5
10945	Ethylbenzene	100-41-4	N.D.	1	5
10945	Isopropylbenzene	98-82-8	N.D.	2	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	5
10945	Toluene	108-88-3	N.D.	1	5
10945	1,2,4-Trimethylbenzene	95-63-6	2 J	2	5
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	2	5
10945	Xylene (Total)	1330-20-7	N.D.	3	5
	Reporting limits were raised due to sample foaming.				
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	1	0.1	1
14249	Benzo(a)anthracene	56-55-3	0.7	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	1	0.1	1
14249	Fluorene	86-73-7	1	0.1	1
14249	Naphthalene	91-20-3	0.9	0.1	1
14249	Phenanthrene	85-01-8	3	0.1	1
14249	Pyrene	129-00-0	2	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F191923AA	07/12/2019 05:57	Hu Yang	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191923AA	07/12/2019 05:56	Hu Yang	5
14249	PAHs 8270C MINI	SW-846 8270C	1	19186WAI026	07/10/2019 13:14	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19186WAI026	07/06/2019 11:30	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191900011A	07/10/2019 19:02	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191900011A	07/10/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191901404701A	07/15/2019 06:54	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191901404701	07/09/2019 05:03	James L Mertz	1

Sample Description: **RW-502-SL_20190702 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/03/2019 17:00
Collection Date/Time: 07/02/2019 13:40

Evergreen c/o Stantec
ELLE Sample #: GW 1095576
ELLE Group #: 2052178
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	
10945	Benzene	71-43-2	46		2	10
10945	1,2-Dichloroethane	107-06-2	N.D.		20	10
10945	Ethylbenzene	100-41-4	N.D.		2	10
10945	Isopropylbenzene	98-82-8	45	J	3	10
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		2	10
10945	Toluene	108-88-3	6	J	2	10
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.		3	10
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.		3	10
10945	Xylene (Total)	1330-20-7	14	J	5	10
	Reporting limits were raised due to sample foaming.					
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	
14249	Anthracene	120-12-7	16		0.1	1
14249	Benzo(a)anthracene	56-55-3	6		0.1	1
14249	Benzo(a)pyrene	50-32-8	4		0.1	1
14249	Benzo(b)fluoranthene	205-99-2	3		0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	2		0.1	1
14249	Chrysene	218-01-9	9		0.1	1
14249	Fluorene	86-73-7	32		0.1	1
14249	Naphthalene	91-20-3	32		0.1	1
14249	Phenanthrene	85-01-8	61		0.1	1
14249	Pyrene	129-00-0	18		0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D.	D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	
06035	Lead	7439-92-1	N.D.		1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F191924AA	07/12/2019 03:32	Hu Yang	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191924AA	07/12/2019 03:31	Hu Yang	10
14249	PAHs 8270C MINI	SW-846 8270C	1	19186WAI026	07/10/2019 13:44	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19186WAI026	07/06/2019 11:30	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191900011A	07/10/2019 19:17	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191900011A	07/10/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191901404701A	07/15/2019 06:47	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191901404701	07/09/2019 05:03	James L Mertz	1

Sample Description: N-82-SL_20190703 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 07/03/2019 17:00
Collection Date/Time: 07/03/2019 11:00

Evergreen c/o Stantec
ELLE Sample #: GW 1095577
ELLE Group #: 2052178
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	2,500	10	50
10945	1,2-Dichloroethane	107-06-2	N.D.	10	5
10945	Ethylbenzene	100-41-4	2,700	10	50
10945	Isopropylbenzene	98-82-8	130	2	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	5
10945	Toluene	108-88-3	1,000	10	50
10945	1,2,4-Trimethylbenzene	95-63-6	540	2	5
10945	1,3,5-Trimethylbenzene	108-67-8	150	2	5
10945	Xylene (Total)	1330-20-7	1,700	3	5
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	13	0.09	1
14249	Benzo(a)anthracene	56-55-3	5	0.09	1
14249	Benzo(a)pyrene	50-32-8	3	0.09	1
14249	Benzo(b)fluoranthene	205-99-2	3	0.09	1
14249	Benzo(g,h,i)perylene	191-24-2	1	0.09	1
14249	Chrysene	218-01-9	5	0.09	1
14249	Fluorene	86-73-7	44	0.09	1
14249	Naphthalene	91-20-3	4,500	5	50
14249	Phenanthrene	85-01-8	58	0.09	1
14249	Pyrene	129-00-0	14	0.09	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F191924AA	07/12/2019 05:44	Hu Yang	5
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F191924AA	07/12/2019 06:06	Hu Yang	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191924AA	07/12/2019 05:43	Hu Yang	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F191924AA	07/12/2019 06:05	Hu Yang	50
14249	PAHs 8270C MINI	SW-846 8270C	1	19186WAP026	07/10/2019 03:02	Brandon K Cordova	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19186WAP026	07/10/2019 09:15	Kira N Beck	50
07807	BNA Water Extraction	SW-846 3510C	1	19186WAP026	07/08/2019 10:30	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191900011A	07/10/2019 19:33	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191900011A	07/10/2019 05:00	Mathias Okpo	1

Sample Description: **N-82-SL_20190703 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/03/2019 17:00
Collection Date/Time: 07/03/2019 11:00

Evergreen c/o Stantec
ELLE Sample #: GW 1095577
ELLE Group #: 2052178
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	191901404701A	07/10/2019 15:39	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191901404701	07/09/2019 05:03	James L Mertz	1

Sample Description: W-32-SL_20190701 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 07/03/2019 17:00
Collection Date/Time: 07/01/2019 09:50

Evergreen c/o Stantec
ELLE Sample #: GW 1095578
ELLE Group #: 2052178
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	
10945	Benzene	71-43-2	11	J	4	20
10945	1,2-Dichloroethane	107-06-2	N.D.		40	20
10945	Ethylbenzene	100-41-4	N.D.		4	20
10945	Isopropylbenzene	98-82-8	N.D.		6	20
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		4	20
10945	Toluene	108-88-3	N.D.		4	20
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.		6	20
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.		6	20
10945	Xylene (Total)	1330-20-7	N.D.		10	20

Reporting limits were raised due to interference from the sample matrix.

Preservation requirements were not met.
A preserved vial was submitted for analysis. However, the pH at the time of analysis was 7.

GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	
14249	Anthracene	120-12-7	N.D.		1	10
14249	Benzo(a)anthracene	56-55-3	N.D.		1	10
14249	Benzo(a)pyrene	50-32-8	N.D.		1	10
14249	Benzo(b)fluoranthene	205-99-2	N.D.		1	10
14249	Benzo(g,h,i)perylene	191-24-2	N.D.		1	10
14249	Chrysene	218-01-9	N.D.		1	10
14249	Fluorene	86-73-7	15		1	10
14249	Naphthalene	91-20-3	N.D.		1	10
14249	Phenanthrene	85-01-8	16		1	10
14249	Pyrene	129-00-0	12		1	10

Reporting limits were raised due to interference from the sample matrix.

Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D.	D2	0.047	5
Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	
06035	Lead	7439-92-1	N.D.		1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F191933AA	07/13/2019 06:08	Hu Yang	20
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191933AA	07/13/2019 06:07	Hu Yang	20
14249	PAHs 8270C MINI	SW-846 8270C	1	19186WAI026	07/10/2019 14:14	Kira N Beck	10
07807	BNA Water Extraction	SW-846 3510C	1	19186WAI026	07/06/2019 11:30	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191900011A	07/10/2019 19:48	Jason Brumbaugh	5
07786	EDB Extraction (8011)	SW-846 8011	1	191900011A	07/10/2019 05:00	Mathias Okpo	1

Sample Description: **W-32-SL_20190701 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/03/2019 17:00
Collection Date/Time: 07/01/2019 09:50

Evergreen c/o Stantec
ELLE Sample #: GW 1095578
ELLE Group #: 2052178
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	191901404701A	07/15/2019 07:01	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191901404701	07/09/2019 05:03	James L Mertz	1

Sample Description: **W-1_20190701 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/03/2019 17:00
Collection Date/Time: 07/01/2019 12:30

Evergreen c/o Stantec
ELLE Sample #: GW 1095579
ELLE Group #: 2052178
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	0.4 J	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.5 J	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	0.8	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	3	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	2	0.1	1
14249	Pyrene	129-00-0	0.9	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F191923AA	07/12/2019 01:10	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191923AA	07/12/2019 01:09	Hu Yang	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19186WAI026	07/10/2019 14:44	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19186WAI026	07/06/2019 11:30	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191900011A	07/10/2019 20:04	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191900011A	07/10/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191891404706A	07/10/2019 12:45	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191891404706	07/08/2019 16:20	Barbara A Kane	1

Sample Description: **OW-19_20190701 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/03/2019 17:00
Collection Date/Time: 07/01/2019 14:00

Evergreen c/o Stantec
ELLE Sample #: GW 1095580
ELLE Group #: 2052178
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	8,600	40	200
10945	t-Butyl alcohol	75-65-0	40,000	2,000	200
10945	1,2-Dichloroethane	107-06-2	N.D.	40	20
10945	Ethylbenzene	100-41-4	1,400	4	20
10945	Isopropylbenzene	98-82-8	68 J	6	20
10945	Methyl Tertiary Butyl Ether	1634-04-4	63,000	40	200
10945	Toluene	108-88-3	11,000	40	200
10945	1,2,4-Trimethylbenzene	95-63-6	1,900	6	20
10945	1,3,5-Trimethylbenzene	108-67-8	630	6	20
10945	Xylene (Total)	1330-20-7	9,800	10	20
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	26	1	10
14249	Benzo(a)anthracene	56-55-3	18	1	10
14249	Benzo(a)pyrene	50-32-8	17	1	10
14249	Benzo(b)fluoranthene	205-99-2	14	1	10
14249	Benzo(g,h,i)perylene	191-24-2	7	1	10
14249	Chrysene	218-01-9	18	1	10
14249	Fluorene	86-73-7	33	1	10
14249	Naphthalene	91-20-3	600	1	10
14249	Phenanthrene	85-01-8	85	1	10
14249	Pyrene	129-00-0	54	1	10
Reporting limits were raised due to interference from the sample matrix.					
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191924AA	07/12/2019 06:28	Hu Yang	20
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191924AA	07/12/2019 06:50	Hu Yang	200
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191924AA	07/12/2019 06:27	Hu Yang	20
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F191924AA	07/12/2019 06:49	Hu Yang	200
14249	PAHs 8270C MINI	SW-846 8270C	1	19186WAI026	07/10/2019 15:14	Kira N Beck	10
07807	BNA Water Extraction	SW-846 3510C	1	19186WAI026	07/06/2019 11:30	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191900011A	07/10/2019 20:20	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191900011A	07/10/2019 05:00	Mathias Okpo	1

Sample Description: **OW-19_20190701 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/03/2019 17:00
Collection Date/Time: 07/01/2019 14:00

Evergreen c/o Stantec
ELLE Sample #: GW 1095580
ELLE Group #: 2052178
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	191891404706A	07/10/2019 12:41	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191891404706	07/08/2019 16:20	Barbara A Kane	1

Sample Description: **S-357_SL_20190702 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/03/2019 17:00
Collection Date/Time: 07/02/2019 10:10

Evergreen c/o Stantec
ELLE Sample #: GW 1095581
ELLE Group #: 2052178
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	2	0.2	1
10945	t-Butyl alcohol	75-65-0	28	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	0.4 J	0.2	1
10945	Isopropylbenzene	98-82-8	10	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	1	0.2	1
10945	Toluene	108-88-3	0.9 J	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	0.6 J	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	3 J	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	0.6	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	0.9	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191924AA	07/12/2019 03:54	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191924AA	07/12/2019 03:53	Hu Yang	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19186WAI026	07/10/2019 15:44	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19186WAI026	07/06/2019 11:30	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191900011A	07/10/2019 20:35	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191900011A	07/10/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191891404706A	07/10/2019 12:06	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191891404706	07/08/2019 16:20	Barbara A Kane	1

Sample Description: **S-423_SL_20190702 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/03/2019 17:00
Collection Date/Time: 07/02/2019 11:30

Evergreen c/o Stantec
ELLE Sample #: GW 1095582
ELLE Group #: 2052178
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	0.7 J	0.2	1
10945	t-Butyl alcohol	75-65-0	54	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	0.5 J	0.2	1
10945	Isopropylbenzene	98-82-8	61	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	4	0.2	1
10945	Toluene	108-88-3	1	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	0.6 J	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	1 J	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	1	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	7	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	11	0.1	1
14249	Pyrene	129-00-0	1	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	4.3	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191912AA	07/10/2019 18:33	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191912AA	07/10/2019 18:32	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19186WAI026	07/10/2019 16:15	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19186WAI026	07/06/2019 11:30	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191900011A	07/10/2019 20:51	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191900011A	07/10/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191891404706A	07/10/2019 12:07	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191891404706	07/08/2019 16:20	Barbara A Kane	1

Sample Description: **S-355_SL_20190702 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/03/2019 17:00
Collection Date/Time: 07/02/2019 13:00

Evergreen c/o Stantec
ELLE Sample #: GW 1095583
ELLE Group #: 2052178
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	
10945	Benzene	71-43-2	0.6	J	0.2	1
10945	t-Butyl alcohol	75-65-0	23	J	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.		2	1
10945	Ethylbenzene	100-41-4	N.D.		0.2	1
10945	Isopropylbenzene	98-82-8	46		0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	1		0.2	1
10945	Toluene	108-88-3	1	J	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.		0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.		0.3	1
10945	Xylene (Total)	1330-20-7	2	J	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	
14249	Anthracene	120-12-7	N.D.		0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.		0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.		0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.		0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.		0.1	1
14249	Chrysene	218-01-9	N.D.		0.1	1
14249	Fluorene	86-73-7	17		0.1	1
14249	Naphthalene	91-20-3	N.D.		0.1	1
14249	Phenanthrene	85-01-8	39		0.1	1
14249	Pyrene	129-00-0	2		0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D.	D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	
06035	Lead	7439-92-1	N.D.		1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191912AA	07/10/2019 18:55	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191912AA	07/10/2019 18:54	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19186WAI026	07/10/2019 16:45	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19186WAI026	07/06/2019 11:30	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191900011A	07/10/2019 21:38	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191900011A	07/10/2019 05:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	191891404706A	07/10/2019 12:19	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191891404706	07/08/2019 16:20	Barbara A Kane	1

Sample Description: **TB_20190703 Water**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/03/2019 17:00
Collection Date/Time: 06/05/2019

Evergreen c/o Stantec
ELLE Sample #: GW 1095584
ELLE Group #: 2052178
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dibromoethane	106-93-4	N.D.	0.3	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cum/EDB/EDC/TBA /TMBs	SW-846 8260B	1	F191923AA	07/11/2019 21:30	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191923AA	07/11/2019 21:29	Hu Yang	1

Quality Control Summary

Client Name: Evergreen c/o Stantec
Group Number: 2052178
Reported: 07/17/2019 11:49

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	ug/l	ug/l
Batch number: F191902AA	Sample number(s): 1095564-1095566	
Benzene	N.D.	0.2
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.5
Batch number: F191912AA	Sample number(s): 1095568-1095569,1095573,1095582-1095583	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.5
Batch number: F191923AA	Sample number(s): 1095561-1095563,1095567,1095570-1095572,1095574-1095575,1095579,1095584	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
1,2-Dibromoethane	N.D.	0.3
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.5
Batch number: F191924AA	Sample number(s): 1095576-1095577,1095580-1095581	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Group Number: 2052178
Reported: 07/17/2019 11:49

Method Blank (continued)

Analysis Name	Result	MDL
	ug/l	ug/l
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.5
Batch number: F191933AA	Sample number(s): 1095563,1095578	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.5
Batch number: 19186WAI026	Sample number(s): 1095561-1095562,1095564-1095570,1095572-1095576,1095578-1095583	
Anthracene	N.D.	0.1
Benzo(a)anthracene	N.D.	0.1
Benzo(a)pyrene	N.D.	0.1
Benzo(b)fluoranthene	N.D.	0.1
Benzo(g,h,i)perylene	N.D.	0.1
Chrysene	N.D.	0.1
Fluorene	N.D.	0.1
Naphthalene	N.D.	0.1
Phenanthrene	N.D.	0.1
Pyrene	N.D.	0.1
Batch number: 19186WAP026	Sample number(s): 1095563,1095571,1095577	
Anthracene	N.D.	0.1
Benzo(a)anthracene	N.D.	0.1
Benzo(a)pyrene	N.D.	0.1
Benzo(b)fluoranthene	N.D.	0.1
Benzo(g,h,i)perylene	N.D.	0.1
Chrysene	N.D.	0.1
Fluorene	N.D.	0.1
Naphthalene	N.D.	0.1
Phenanthrene	N.D.	0.1
Pyrene	N.D.	0.1
Batch number: 191890015A	Sample number(s): 1095561-1095564	
Ethylene dibromide	N.D.	0.010
Batch number: 191900011A	Sample number(s): 1095565-1095583	

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P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 07/17/2019 11:49

Group Number: 2052178

Method Blank (continued)

Analysis Name	Result	MDL
	ug/l	ug/l
Ethylene dibromide	N.D.	0.010
Batch number: 191891404706A	Sample number(s): 1095562-1095572,1095579-1095583	
Lead	N.D.	1.1
Batch number: 191901404701A	Sample number(s): 1095561,1095573-1095578	
Lead	N.D.	1.1

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F191902AA	Sample number(s): 1095564-1095566								
Benzene	20	20.77			104		80-120		
1,2-Dichloroethane	20	17.27			86		73-124		
Ethylbenzene	20	19.66			98		80-120		
Isopropylbenzene	20	19.34			97		80-120		
Methyl Tertiary Butyl Ether	20	19.82			99		69-122		
Toluene	20	20.33			102		80-120		
1,2,4-Trimethylbenzene	20	19.6			98		75-120		
1,3,5-Trimethylbenzene	20	19.92			100		75-120		
Xylene (Total)	60	60.71			101		80-120		
Batch number: F191912AA	Sample number(s): 1095568-1095569,1095573,1095582-1095583								
Benzene	20	21.24			106		80-120		
t-Butyl alcohol	200	177.47			89		60-130		
1,2-Dichloroethane	20	17.06			85		73-124		
Ethylbenzene	20	19.16			96		80-120		
Isopropylbenzene	20	19.26			96		80-120		
Methyl Tertiary Butyl Ether	20	19.51			98		69-122		
Toluene	20	20.15			101		80-120		
1,2,4-Trimethylbenzene	20	19.57			98		75-120		
1,3,5-Trimethylbenzene	20	19.43			97		75-120		
Xylene (Total)	60	59.18			99		80-120		
Batch number: F191923AA	Sample number(s): 1095561-1095563,1095567,1095570-1095572,1095574-1095575,1095579,1095584								
Benzene	20	22.47			112		80-120		
t-Butyl alcohol	200	182.61			91		60-130		
1,2-Dibromoethane	20	20.7			103		77-120		
1,2-Dichloroethane	20	18.42			92		73-124		
Ethylbenzene	20	20.19			101		80-120		
Isopropylbenzene	20	20.42			102		80-120		
Methyl Tertiary Butyl Ether	20	19.91			100		69-122		

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Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 07/17/2019 11:49

Group Number: 2052178

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Toluene	20	21.48			107		80-120		
1,2,4-Trimethylbenzene	20	19.92			100		75-120		
1,3,5-Trimethylbenzene	20	19.98			100		75-120		
Xylene (Total)	60	63.64			106		80-120		
Batch number: F191924AA	Sample number(s): 1095576-1095577,1095580-1095581								
Benzene	20	22.11			111		80-120		
t-Butyl alcohol	200	185.67			93		60-130		
1,2-Dichloroethane	20	17.93			90		73-124		
Ethylbenzene	20	19.91			100		80-120		
Isopropylbenzene	20	20.09			100		80-120		
Methyl Tertiary Butyl Ether	20	21.03			105		69-122		
Toluene	20	20.86			104		80-120		
1,2,4-Trimethylbenzene	20	20.36			102		75-120		
1,3,5-Trimethylbenzene	20	20.41			102		75-120		
Xylene (Total)	60	61.92			103		80-120		
Batch number: F191933AA	Sample number(s): 1095563,1095578								
Benzene	20	22.66			113		80-120		
t-Butyl alcohol	200	210.54			105		60-130		
1,2-Dichloroethane	20	18.36			92		73-124		
Ethylbenzene	20	21.73			109		80-120		
Isopropylbenzene	20	20.81			104		80-120		
Methyl Tertiary Butyl Ether	20	19.67			98		69-122		
Toluene	20	22.36			112		80-120		
1,2,4-Trimethylbenzene	20	21.32			107		75-120		
1,3,5-Trimethylbenzene	20	21.39			107		75-120		
Xylene (Total)	60	65.89			110		80-120		
	ug/l	ug/l	ug/l	ug/l					
Batch number: 19186WAI026	Sample number(s): 1095561-1095562,1095564-1095570,1095572-1095576,1095578-1095583								
Anthracene	50	39.69	50	41.68	79	83	67-112	5	30
Benzo(a)anthracene	50	43.87	50	43.29	88	87	70-118	1	30
Benzo(a)pyrene	50	45.96	50	42.12	92	84	71-117	9	30
Benzo(b)fluoranthene	50	45.08	50	41.96	90	84	71-115	7	30
Benzo(g,h,i)perylene	50	45.36	50	44.71	91	89	62-113	1	30
Chrysene	50	41.66	50	44.75	83	90	69-116	7	30
Fluorene	50	38.6	50	37.87	77	76	62-110	2	30
Naphthalene	50	36.03	50	35.51	72	71	53-99	1	30
Phenanthrene	50	41.04	50	41.03	82	82	65-113	0	30
Pyrene	50	43.19	50	44.97	86	90	68-110	4	30
Batch number: 19186WAP026	Sample number(s): 1095563,1095571,1095577								
Anthracene	50	43.32	50	43.53	87	87	67-112	0	30
Benzo(a)anthracene	50	45.69	50	44.61	91	89	70-118	2	30

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Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 07/17/2019 11:49

Group Number: 2052178

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Benzo(a)pyrene	50	46.97	50	46.78	94	94	71-117	0	30
Benzo(b)fluoranthene	50	50.12	50	46.86	100	94	71-115	7	30
Benzo(g,h,i)perylene	50	48.2	50	46.29	96	93	62-113	4	30
Chrysene	50	43.29	50	44.26	87	89	69-116	2	30
Fluorene	50	38.92	50	41.67	78	83	62-110	7	30
Naphthalene	50	37.68	50	38.37	75	77	53-99	2	30
Phenanthrene	50	44.43	50	47.66	89	95	65-113	7	30
Pyrene	50	47.62	50	46.2	95	92	68-110	3	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 191890015A	Sample number(s): 1095561-1095564								
Ethylene dibromide	0.128	0.144	0.128	0.130	112	102	60-140	10	20
Batch number: 191900011A	Sample number(s): 1095565-1095583								
Ethylene dibromide	0.128	0.123	0.128	0.124	96	97	60-140	1	20
	ug/l	ug/l	ug/l	ug/l					
Batch number: 191891404706A	Sample number(s): 1095562-1095572,1095579-1095583								
Lead	15	15.26			102		90-110		
Batch number: 191901404701A	Sample number(s): 1095561,1095573-1095578								
Lead	15	15.66			104		90-110		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: F191902AA	Sample number(s): 1095564-1095566 UNSPK: P092660									
Benzene	N.D.	20	22.59	20	23.47	113	117	80-120	4	30
1,2-Dichloroethane	N.D.	20	17.61	20	18.29	88	91	73-124	4	30
Ethylbenzene	N.D.	20	21.28	20	21.49	106	107	80-120	1	30
Isopropylbenzene	0.308	20	21.59	20	22.38	106	110	80-120	4	30
Methyl Tertiary Butyl Ether	10.84	20	31.34	20	32.06	103	106	69-122	2	30
Toluene	N.D.	20	22.17	20	22.64	111	113	80-120	2	30
1,2,4-Trimethylbenzene	N.D.	20	21.32	20	22.08	107	110	75-120	3	30
1,3,5-Trimethylbenzene	N.D.	20	21.41	20	22.02	107	110	75-120	3	30
Xylene (Total)	N.D.	60	65.37	60	67.13	109	112	80-120	3	30
Batch number: F191912AA	Sample number(s): 1095568-1095569,1095573,1095582-1095583 UNSPK: 1095569									

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Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 07/17/2019 11:49

Group Number: 2052178

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Benzene	2.79	20	25.21	20	26.31	112	118	80-120	4	30
t-Butyl alcohol	49.75	200	216.2	200	229.62	83	90	60-130	6	30
1,2-Dichloroethane	N.D.	20	17.49	20	18.59	87	93	73-124	6	30
Ethylbenzene	N.D.	20	20.5	20	21.75	103	109	80-120	6	30
Isopropylbenzene	N.D.	20	20.47	20	21.77	102	109	80-120	6	30
Methyl Tertiary Butyl Ether	1.60	20	21.36	20	22.78	99	106	69-122	6	30
Toluene	N.D.	20	20.84	20	22.64	104	113	80-120	8	30
1,2,4-Trimethylbenzene	N.D.	20	20.24	20	21.65	101	108	75-120	7	30
1,3,5-Trimethylbenzene	N.D.	20	20.45	20	21.79	102	109	75-120	6	30
Xylene (Total)	N.D.	60	62.74	60	66.26	105	110	80-120	5	30
Batch number: F191923AA	Sample number(s): 1095561-1095563,1095567,1095570-1095572,1095574-1095575,1095579,1095584 UNSPK: P096058									
Benzene	17.73	20	38.03	20	38.98	102	106	80-120	2	30
t-Butyl alcohol	29.01	200	182.5	200	190.24	77	81	60-130	4	30
1,2-Dibromoethane	N.D.	20	18.94	20	19.36	95	97	77-120	2	30
1,2-Dichloroethane	N.D.	20	16.75	20	17.62	84	88	73-124	5	30
Ethylbenzene	0.267	20	19.43	20	20.14	96	99	80-120	4	30
Isopropylbenzene	N.D.	20	19.11	20	20.24	96	101	80-120	6	30
Methyl Tertiary Butyl Ether	5.61	20	23.06	20	24.11	87	93	69-122	4	30
Toluene	1.37	20	21.21	20	22.69	99	107	80-120	7	30
1,2,4-Trimethylbenzene	N.D.	20	18.49	20	19.44	92	97	75-120	5	30
1,3,5-Trimethylbenzene	N.D.	20	18.44	20	19	92	95	75-120	3	30
Xylene (Total)	0.519	60	59.86	60	63.25	99	105	80-120	6	30
Batch number: F191924AA	Sample number(s): 1095576-1095577,1095580-1095581 UNSPK: P095772									
Benzene	N.D.	20	22.91	20	22.99	115	115	80-120	0	30
t-Butyl alcohol	N.D.	200	178.82	200	177.08	89	89	60-130	1	30
1,2-Dichloroethane	N.D.	20	17.54	20	17.82	88	89	73-124	2	30
Ethylbenzene	N.D.	20	21.08	20	21.5	105	108	80-120	2	30
Isopropylbenzene	N.D.	20	20.94	20	21.19	105	106	80-120	1	30
Methyl Tertiary Butyl Ether	N.D.	20	19.84	20	20.11	99	101	69-122	1	30
Toluene	N.D.	20	22.03	20	22.31	110	112	80-120	1	30
1,2,4-Trimethylbenzene	N.D.	20	20.21	20	20.16	101	101	75-120	0	30
1,3,5-Trimethylbenzene	N.D.	20	20.43	20	20.47	102	102	75-120	0	30
Xylene (Total)	N.D.	60	65.39	60	65.21	109	109	80-120	0	30
Batch number: F191933AA	Sample number(s): 1095563,1095578 UNSPK: P096046									
Benzene	N.D.	20	21.85	20	22.01	109	110	80-120	1	30
t-Butyl alcohol	N.D.	200	186.77	200	198.04	93	99	60-130	6	30
1,2-Dichloroethane	N.D.	20	17.32	20	17.32	87	87	73-124	0	30
Ethylbenzene	N.D.	20	20.37	20	20.71	102	104	80-120	2	30
Isopropylbenzene	N.D.	20	20.17	20	20.96	101	105	80-120	4	30
Methyl Tertiary Butyl Ether	N.D.	20	18.43	20	18.85	92	94	69-122	2	30

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P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 07/17/2019 11:49

Group Number: 2052178

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc	MS Spike Added	MS Conc	MSD Spike Added	MSD Conc	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
	ug/l	ug/l	ug/l	ug/l	ug/l					
Toluene	N.D.	20	21.45	20	21.86	107	109	80-120	2	30
1,2,4-Trimethylbenzene	N.D.	20	20.14	20	20.59	101	103	75-120	2	30
1,3,5-Trimethylbenzene	N.D.	20	19.7	20	20.66	99	103	75-120	5	30
Xylene (Total)	N.D.	60	63.18	60	64.17	105	107	80-120	2	30
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 191890015A	Sample number(s): 1095561-1095564 UNSPK: P095502									
Ethylene dibromide	N.D.	0.121	0.0994			82		60-140		
Batch number: 191900011A	Sample number(s): 1095565-1095583 UNSPK: 1095565									
Ethylene dibromide	N.D.	0.120	0.116			97		60-140		
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 191891404706A	Sample number(s): 1095562-1095572,1095579-1095583 UNSPK: 1095564									
Lead	N.D.	15	15.25	15	15.08	102	101	75-125	1	20
Batch number: 191901404701A	Sample number(s): 1095561,1095573-1095578 UNSPK: P093586									
Lead	N.D.	75	79.6	75	80.5	106	107	75-125	1	20

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc	DUP Conc	DUP RPD	DUP RPD Max
	ug/l	ug/l		
Batch number: 191890015A	Sample number(s): 1095561-1095564 BKG: P095503			
Ethylene dibromide	N.D.	N.D.	0 (1)	30
Batch number: 191900011A	Sample number(s): 1095565-1095583 BKG: 1095566			
Ethylene dibromide	N.D.	N.D.	0 (1)	30
	ug/l	ug/l		
Batch number: 191891404706A	Sample number(s): 1095562-1095572,1095579-1095583 BKG: 1095564			
Lead	N.D.	N.D.	0 (1)	20
Batch number: 191901404701A	Sample number(s): 1095561,1095573-1095578 BKG: P093586			
Lead	N.D.	N.D.	0 (1)	20

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(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 07/17/2019 11:49

Group Number: 2052178

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX/MTBE/Cumene/EDC/TMBs
Batch number: F191902AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1095564	97	97	100	94
1095565	96	98	98	96
1095566	93	99	100	98
Blank	96	95	100	91
LCS	95	98	99	96
MS	97	101	99	94
MSD	96	103	99	97
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: F191912AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1095568	95	94	99	108
1095569	97	99	99	93
1095573	98	96	99	97
1095582	96	100	98	104
1095583	97	95	100	105
Blank	98	96	99	91
LCS	96	99	97	94
MS	96	99	98	97
MSD	94	96	100	96
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: F191923AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1095561	98	96	99	91
1095562	99	97	99	92
1095563	97	93	102	100
1095567	96	100	99	104
1095570	91	89	103	94
1095571	94	89	99	91
1095572	96	99	101	92
1095574	95	91	101	95
1095575	96	91	101	93
1095579	100	98	98	93
1095584	100	95	98	92
Blank	97	96	98	94
LCS	99	98	99	97
MS	97	94	98	97

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 07/17/2019 11:49

Group Number: 2052178

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: F191923AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
MSD	98	97	99	97
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: F191924AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1095576	96	94	100	95
1095577	95	90	101	100
1095580	94	93	100	93
1095581	95	91	100	105
Blank	99	96	98	91
LCS	97	97	98	96
MS	97	103	100	98
MSD	96	97	98	96
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TMBs
Batch number: F191933AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1095578	100	100	100	94
Blank	95	94	100	94
LCS	98	100	99	95
MS	96	99	98	94
MSD	94	94	100	97
Limits:	80-120	80-120	80-120	80-120

Analysis Name: PAHs 8270C MINI
Batch number: 19186WAI026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
1095561	74	74	53
1095562	75	88	56
1095564	83	98	77
1095565	87	95	71
1095566	73	79	81
1095567	74	78	64
1095568	83	93	72
1095569	81	98	66
1095570	84	102	49
1095572	67	71	50

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P####### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 07/17/2019 11:49

Group Number: 2052178

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PAHs 8270C MINI
Batch number: 19186WAI026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
1095573	80	87	60
1095574	81	85	66
1095575	85	92	77
1095576	88	80	82
1095578	78	88	66
1095579	80	86	73
1095580	92	89	66
1095581	87	85	78
1095582	79	75	67
1095583	82	72	64
Blank	88	100	78
LCS	75	91	90
LCSD	76	89	81
Limits:	35-107	44-102	33-126

Analysis Name: PAHs 8270C MINI
Batch number: 19186WAP026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
1095563	68	76	64
1095571	80	84	71
1095577	84	95	74
Blank	74	79	83
LCS	91	92	87
LCSD	83	91	88
Limits:	35-107	44-102	33-126

Analysis Name: EDB in Wastewater
Batch number: 191890015A

	1,1,2,2-Tetrachloroethane-D1	1,1,2,2-Tetrachloroethane-D2
1095561	89	89
1095562	93	90
1095563	107	308*
1095564	89	99
Blank	89	89
DUP	74	84
LCS	98	96
LCSD	88	86
MS	84	87

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 07/17/2019 11:49

Group Number: 2052178

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: EDB in Wastewater
Batch number: 191890015A

Limits:	46-136	46-136

Analysis Name: EDB in Wastewater
Batch number: 191900011A

	1,1,2,2-Tetrachloroethane-D1	1,1,2,2-Tetrachloroethane-D2
1095565	84	80
1095566	55	172*
1095567	68	67
1095568	76	71
1095569	63	66
1095570	64	78
1095571	51	86
1095572	74	73
1095573	69	68
1095574	82	90
1095575	87	74
1095576	94	55
1095577	77	84
1095578	0*	84
1095579	69	66
1095580	87	59
1095581	70	65
1095582	72	61
1095583	76	68
Blank	74	76
DUP	151*	30*
LCS	68	69
LCSD	67	64
MS	69	69
Limits:	46-136	46-136

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Environmental Analysis Request/Chain of Custody

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Acct. # 16657 Group # 2052178 Sample # 1095561-84

COC #586797

Client Information

Client: Stantec	Acct. #: 16657 Evergreen C/O Stantec
Project Name/#: 2019 Annual GWS PHL	PWSID #:
Project Manager: Jennifer Menges	P.O. #: 213402429
Sampler: Sean Pierce	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: ____

Analysis Requested — Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Sediment	Tissue	Water	Other	Total # of Containers	Evergreen VOC 8260 (H)	EDB 8011 (H)	Dissolved Lead (Field Filtered) (N)	PAH 8270	TBA 8260 (H)						Remarks
ARCO-1D_20190703	7/3/19	0905	X					X		8	X	X	X	X	X						
DUP-6_20190703	7/3/19	—	X					X		8	X	X	X	X	X						
RW-26_20190703	7/3/19	1020	X					X		8	X	X	X	X	X						

For Lab Use Only
FSC:
SCR#:

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks
* Lead field filtered
* for list of analytes refer to attached Evergreen Short List

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: Jennifer.Menges@stantec.com

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
[signature]	7/3/19	1324	[signature]	7/3/19	1324
[signature]	7/3/19				
			[signature]	7.3.19	1700

EDD Required? Yes No
If yes, format: EQUIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:
UPS ____ FedEx ____ Other ____

Temperature upon receipt .8-1.4 °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT https://www.eurofinsus.com/coc
The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0718

Environmental Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories Environmental use only

Acct. # 16657 Group # 2052178 Sample # 1095561-84

COC #587301

Client Information

Client: Stantec

Acct. #: Evergreen eb 16657 Stantec

Project Name/#: 2019 Annual GWS DHL

PWSID #:

Project Manager: Jennifer Menges

P.O. #: 2134024129

Sampler: Dana Hohltzell

Quote #:

State where samples were collected: PA

For Compliance: Yes ☐ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ Water ☒ Potable ☐ Ground ☐ NPDES ☐ Surface ☐ Other: ____

Analysis Requested

Preservation and Filtration Codes

For Lab Use Only

FSC: ____

SCR#: ____

Preservation Codes

H=HCl T=Thiosulfate

N=HNO_3 B=NaOH

S=H_2SO_4 P=H_3PO_4

F=Field Filtered O=Other

Remarks

* Lead field filtered
* for list of analytes refer to attached Evergreen short list.

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	Evergreen VOC 8260 (H)	EDB 8011 (H)	Dissolved Lead (N)	PAH 8270	TPH 8260 (H)
W-13_20190701	7/1/19	0950	X		8	X	X	X	X	
W-12_20190701	7/1/19	1055	X		8	X	X	X	X	
URS-5_20190701	7/1/19	1335	X		8	X	X	X	X	
DUP-5_20190702	7/2/19	—	X		8	X	X	X	X	X
S-75_20190702	7/2/19	1005	X		8	X	X	X	X	X
MW-38_20190702	7/2/19	1120	X		8	X	X	X	X	X
MW-37_20190702	7/2/19	1345	X		8	X	X	X	X	X
TW-5_20190703	7/3/19	1045	X		8	X	X	X	X	X

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush ~~TAT is subject to~~ laboratory approval and surcharge.)

Requested TAT in business days: ____

E-mail address: Jennifer.Menges@Stantec

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP)

Type VI (Raw Data Only)

Type III (Reduced non-CLP) NJ DKQP TX TRRP-13

NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
	7/3/19	1324		7/3/19	1324
	7/3/19				

EDD Required? Yes No

If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other ____

Temperature upon receipt 0-1.4 °C

Environmental Analysis Request/Chain of Custody

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Acct. # 16657 Group # 2052178 Sample # 1095561-84

COC # 587303

Client Information

Client: Stantec	Acct. #: 16657 Evergreen c/o Stantec
Project Name/#: 2019 Annual GWS PHL	PWSID #:
Project Manager: Jennifer Menges	P.O. #: 213402429
Sampler: Sean Pierce / Doulta Gupta	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: ____

Analysis Requested — Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Water	Other	Total # of Containers	Evergreen VOC 8260 (H)	EDB 8011 (H)	Dissolved Lead (Field Filtered) (N)	PAH 8270	TBA 8260 (H)						Remarks
W-32D_20190701	7/1/19	950	X			X		8	X	X	X	X							
W-33_20190701	7/1/19	1200	X			X		8	X	X	X	X							
MW-44_20190701	7/1/19	1345	X			X		8	X	X	X	X	X						
N-74-SL_20190702	07/02	1035	X			X		8	X	X	X	X							
RW-502-SL_20190702	07/02	1340	X			X		8	X	X	X	X							
~~N-151-SL_20190703~~	~~07/03~~																		
N-82-SL_20190703	07/03	1100	X			X		8	X	X	X	X							

For Lab Use Only

FSC: ____

SCR#: 244053

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks

* lead field filtered
* for list of analytes refer to attached Evergreen Short List

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: ____

E-mail address: Jennifer.Menges@stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)

Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13

NYSDEC Category A or B | MA MCP | CT RCP

Relinquished by	Date	Time	Received by	Date	Time
[signature]	7/3/19	1324	[signature]	7/3/19	1324
[signature]	7/3/19				
			[signature]	7.3.19	1700

EDD Required? Yes No

If yes, format: EQuis

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other ____

Temperature upon receipt 8-21.4 C

Environmental Analysis Request/Chain of Custody

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Acct. # 16657 Group # 2052178 Sample # 1095561-84

COC # 587302

Client Information

Client: Stantec

Acct. #: 16657 Evergreen c/o Stantec

Project Name/#: 2019 Annual GWS PHL

PWSID #:

Project Manager: Jennifer Menges

P.O. #: 213402429

Sampler: Dane Hopkins Doulton Campbell

Quote #:

State where samples were collected: PA

For Compliance: Yes ☐ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ | Water ☒ Potable ☐ Ground ☐ NPDES ☐ Surface ☐ | Other: Trip Blank

Analysis Requested

Preservation and Filtration Codes

For Lab Use Only

FSC:

SCR#:

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks

* lead field filtered
* for list of analytes refer to attached Evergreen Short List

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Sediment	Tissue	Water	Potable	Ground	NPDES	Surface	Other	Total # of Containers	Evergreen VOC 8260	EDB 8011	Dissolved Lead (Field Filtered)	PAH 8270	TBA 8260
W-32-SL-20190701	7/1/19	0950	X					X						8	X	X	X	X	
W-1-20190701	↓	1230	X					X						8	X	X	X	X	
OW-19-20190701	↓	1400	X					X						8	X	X	X	X	X
S-357-SL-20190702	7/2/19	1010	X					X						8	X	X	X	X	X
S-423-SL-20190702	↓	1180	X					X						8	X	X	X	X	X
S-355-SL-20190702	↓	1300	X					X						8	X	X	X	X	X
TB-20190703	6/5/19	—											TB		X				X

7/3/19

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: Jennifer.Menges@Stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)

Type III (Reduced non-CLP) NJ DKQP TX TRRP-13

NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
GBH GBH	7/3/19	1324		7/3/19 GBH	1324
	7/3/19				
				7.3.19	1700

EDD Required? Yes No

If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____

Temperature upon receipt 18 -> 1.4 °C

2052178

Evergreen Petroleum Short List (June 2016)

VOCs by EPA Method 8260	CAS No.
Benzene	71-43-2
Cumene	98-82-8
Dichloroethane, 1,2-	107-06-2
Ethylbenzene	100-41-4
Ethylene Dibromide*	106-93-4
Methyl tert butyl ether	1634-04-4
Toluene	108-88-3
Trimethylbenzene, 1,2,4-	95-63-6
Trimethylbenzene, 1,3,5-	108-67-8
Xylenes	1330-20-7

SVOCs by EPA Method 8270	CAS No.
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Chrysene	218-01-9
Fluorene	86-73-7
Naphthalene**	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Metals by Method 6010/6020	CAS No.
Lead***	7439-92-1

*Ethylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

**Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

***Metals analysis should be total in soil and dissolved in groundwater.

This list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline and No. 1, 2, 4, 5, 6 Fuel Oils).

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Sample Administration Receipt Documentation Log

Doc Log ID: 253210

Group Number(s): 2052178

Client: Stantec

Delivery and Receipt Information

Delivery Method:	ELLE Courier	Arrival Timestamp:	07/03/2019 17:00
Number of Packages:	3	Number of Projects:	1
State/Province of Origin:	PA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	Total Trip Blank Qty:	2
Paperwork Enclosed:	Yes	Trip Blank Type:	HCl
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Darian Jaynes (29952) at 18:39 on 07/03/2019

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT146	0.8	DT	Wet	Y	Bagged	N
2	DT146	1.3	DT	Wet	Y	Bagged	N
3	DT146	1.4	DT	Wet	Y	Bagged	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.co

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report
B	Detection in the Blank
Q0	LCS/LCSD Low
Q1	LCS/LCSD High
Q2	MS/MSD Low
Q3	MS/MSD High
Q7	LCS/LCSD RPD
Q8	DUP RPD
Q9	MS/MSD RPD

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

Report Date: July 19, 2019 09:56

Project: 2019 Annual GWS PHL

Account #: 16657
Group Number: 2052789
PO Number: 213402429
State of Sample Origin: PA

Electronic Copy To	Evergreen c/o Stantec	Attn: Jennifer Menges
Electronic Copy To	Evergreen c/o Stantec	Attn: Andrew Bradley

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
DUP-7_20190708 Grab Groundwater	07/08/2019	1097899
ARCO-2_20190708 Grab Groundwater	07/08/2019 10:00	1097900
ARCO-1_20190708 Grab Groundwater	07/08/2019 11:35	1097901
ARCO-3_20190708 Grab Groundwater	07/08/2019 13:10	1097902
S-395_20190708 Grab Groundwater	07/08/2019 14:30	1097903
V-MW-2_20190709 Grab Groundwater	07/09/2019 09:15	1097904
MW-36_20190709 Grab Groundwater	07/09/2019 10:15	1097905
S-394_20190709 Grab Groundwater	07/09/2019 11:35	1097906
S-193_20190709 Grab Groundwater	07/09/2019 13:40	1097907
N-151_SL_20190708 Grab Groundwater	07/08/2019 10:05	1097908
N-133_20190708 Grab Groundwater	07/08/2019 11:25	1097909
S-337_SL_20190708 Grab Groundwater	07/08/2019 13:20	1097910
S-22_20190709 Grab Groundwater	07/09/2019 08:30	1097911
S-25_20190709 Grab Groundwater	07/09/2019 09:20	1097912
N-112_SL_20190709 Grab Groundwater	07/09/2019 10:50	1097913
S-376_SL_20190709 Grab Groundwater	07/09/2019 12:20	1097914
TB_20190709 Water	06/05/2019	1097915
C-146_20190709 Grab Groundwater	07/09/2019 08:55	1097916
B-39-SL_20190708 Grab Groundwater	07/08/2019 13:45	1097917
C-168-SL_20190709 Grab Groundwater	07/09/2019 12:05	1097918
C-106-SL_20190709 Grab Groundwater	07/09/2019 14:35	1097919

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Sample Description: DUP-7_20190708 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 07/10/2019 17:08
Collection Date/Time: 07/08/2019

Evergreen c/o Stantec
ELLE Sample #: GW 1097899
ELLE Group #: 2052789
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	
10945	Benzene	71-43-2	370		1	5
10945	t-Butyl alcohol	75-65-0	13	J	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.		2	1
10945	Ethylbenzene	100-41-4	26		0.2	1
10945	Isopropylbenzene	98-82-8	84		0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.2	1
10945	Toluene	108-88-3	47		0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	0.3	J	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	6		0.3	1
10945	Xylene (Total)	1330-20-7	86		0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	
14249	Anthracene	120-12-7	0.1	J	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.		0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.		0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.		0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.		0.1	1
14249	Chrysene	218-01-9	N.D.		0.1	1
14249	Fluorene	86-73-7	1		0.1	1
14249	Naphthalene	91-20-3	2		0.1	1
14249	Phenanthrene	85-01-8	1		0.1	1
14249	Pyrene	129-00-0	N.D.		0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D.	D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	
06035	Lead	7439-92-1	N.D.		1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191952AA	07/14/2019 16:19	Alexander D Sechrist	5
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z191961AA	07/15/2019 22:58	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191952AA	07/14/2019 16:18	Alexander D Sechrist	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Z191961AA	07/15/2019 22:57	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19192WAC026	07/16/2019 17:02	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19192WAC026	07/11/2019 17:07	Christine E Gleim	1
10398	EDB in Wastewater	SW-846 8011	1	191930005A	07/15/2019 09:33	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191930005A	07/12/2019 21:00	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	191921404703A	07/16/2019 15:40	Bradley M Berlot	1

Sample Description: **DUP-7_20190708 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/10/2019 17:08
Collection Date/Time: 07/08/2019

Evergreen c/o Stantec
ELLE Sample #: GW 1097899
ELLE Group #: 2052789
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191921404703	07/15/2019 04:24	James L Mertz	1

Sample Description: **ARCO-2_20190708 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/10/2019 17:08
Collection Date/Time: 07/08/2019 10:00

Evergreen c/o Stantec
ELLE Sample #: GW 1097900
ELLE Group #: 2052789
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	370	1	5
10945	t-Butyl alcohol	75-65-0	13 J	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	25	0.2	1
10945	Isopropylbenzene	98-82-8	84	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	47	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	0.3 J	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	6	0.3	1
10945	Xylene (Total)	1330-20-7	87	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	0.1 J	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	2	0.1	1
14249	Naphthalene	91-20-3	3	0.1	1
14249	Phenanthrene	85-01-8	2	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191952AA	07/14/2019 16:40	Alexander D Sechrist	5
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z191961AA	07/15/2019 23:22	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191952AA	07/14/2019 16:39	Alexander D Sechrist	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Z191961AA	07/15/2019 23:21	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19192WAC026	07/16/2019 17:31	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19192WAC026	07/11/2019 17:07	Christine E Gleim	1
10398	EDB in Wastewater	SW-846 8011	1	191930005A	07/15/2019 10:05	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191930005A	07/12/2019 21:00	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	191921404703A	07/16/2019 15:43	Bradley M Berlot	1

Sample Description: **ARCO-2_20190708 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/10/2019 17:08
Collection Date/Time: 07/08/2019 10:00

Evergreen c/o Stantec
ELLE Sample #: GW 1097900
ELLE Group #: 2052789
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191921404703	07/15/2019 04:24	James L Mertz	1

Sample Description: **ARCO-1_20190708 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/10/2019 17:08
Collection Date/Time: 07/08/2019 11:35

Evergreen c/o Stantec
ELLE Sample #: GW 1097901
ELLE Group #: 2052789
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	
10945	Benzene	71-43-2	420		1	5
10945	t-Butyl alcohol	75-65-0	11	J	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.		2	1
10945	Ethylbenzene	100-41-4	12		0.2	1
10945	Isopropylbenzene	98-82-8	48		0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.2	1
10945	Toluene	108-88-3	49		0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	2	J	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	7		0.3	1
10945	Xylene (Total)	1330-20-7	48		0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	
14249	Anthracene	120-12-7	0.1	J	0.09	1
14249	Benzo(a)anthracene	56-55-3	N.D.		0.09	1
14249	Benzo(a)pyrene	50-32-8	N.D.		0.09	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.		0.09	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.		0.09	1
14249	Chrysene	218-01-9	N.D.		0.09	1
14249	Fluorene	86-73-7	1		0.09	1
14249	Naphthalene	91-20-3	4		0.09	1
14249	Phenanthrene	85-01-8	1		0.09	1
14249	Pyrene	129-00-0	N.D.		0.09	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D.	D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	
06035	Lead	7439-92-1	N.D.		1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191952AA	07/14/2019 17:02	Alexander D Sechrist	5
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z191971AA	07/16/2019 15:56	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191952AA	07/14/2019 17:01	Alexander D Sechrist	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Z191971AA	07/16/2019 15:55	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19192WAC026	07/16/2019 18:00	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19192WAC026	07/11/2019 17:07	Christine E Gleim	1
10398	EDB in Wastewater	SW-846 8011	1	191930005A	07/15/2019 10:36	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191930005A	07/12/2019 21:00	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	191921404703A	07/16/2019 15:50	Bradley M Berlot	1

Sample Description: **ARCO-1_20190708 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/10/2019 17:08
Collection Date/Time: 07/08/2019 11:35

Evergreen c/o Stantec
ELLE Sample #: GW 1097901
ELLE Group #: 2052789
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191921404703	07/15/2019 04:24	James L Mertz	1

Sample Description: **ARCO-3_20190708 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/10/2019 17:08
Collection Date/Time: 07/08/2019 13:10

Evergreen c/o Stantec
ELLE Sample #: GW 1097902
ELLE Group #: 2052789
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	2,200	10	50
10945	t-Butyl alcohol	75-65-0	52 J	50	5
10945	1,2-Dichloroethane	107-06-2	N.D.	10	5
10945	Ethylbenzene	100-41-4	76	1	5
10945	Isopropylbenzene	98-82-8	73	2	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	5
10945	Toluene	108-88-3	120	1	5
10945	1,2,4-Trimethylbenzene	95-63-6	17 J	2	5
10945	1,3,5-Trimethylbenzene	108-67-8	23 J	2	5
10945	Xylene (Total)	1330-20-7	150	3	5
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	0.2 J	0.09	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.09	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.09	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.09	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.09	1
14249	Chrysene	218-01-9	N.D.	0.09	1
14249	Fluorene	86-73-7	2	0.09	1
14249	Naphthalene	91-20-3	24	0.09	1
14249	Phenanthrene	85-01-8	1	0.09	1
14249	Pyrene	129-00-0	N.D.	0.09	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191952AA	07/14/2019 17:24	Alexander D Sechrist	5
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191952AA	07/14/2019 17:46	Alexander D Sechrist	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191952AA	07/14/2019 17:23	Alexander D Sechrist	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F191952AA	07/14/2019 17:45	Alexander D Sechrist	50
14249	PAHs 8270C MINI	SW-846 8270C	1	19192WAC026	07/16/2019 18:29	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19192WAC026	07/11/2019 17:07	Christine E Gleim	1
10398	EDB in Wastewater	SW-846 8011	1	191930005A	07/15/2019 10:51	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191930005A	07/12/2019 21:00	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	191921404703A	07/16/2019 15:52	Bradley M Berlot	1

Sample Description: **ARCO-3_20190708 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/10/2019 17:08
Collection Date/Time: 07/08/2019 13:10

Evergreen c/o Stantec
ELLE Sample #: GW 1097902
ELLE Group #: 2052789
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191921404703	07/15/2019 04:24	James L Mertz	1

Sample Description: **S-395_20190708 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/10/2019 17:08
Collection Date/Time: 07/08/2019 14:30

Evergreen c/o Stantec
ELLE Sample #: GW 1097903
ELLE Group #: 2052789
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191952AA	07/14/2019 18:08	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191952AA	07/14/2019 18:07	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19192WAC026	07/16/2019 18:58	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19192WAC026	07/11/2019 17:07	Christine E Gleim	1
10398	EDB in Wastewater	SW-846 8011	1	191930005A	07/15/2019 11:07	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191930005A	07/12/2019 21:00	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	191921404703A	07/16/2019 15:54	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191921404703	07/15/2019 04:24	James L Mertz	1

Sample Description: V-MW-2_20190709 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 07/10/2019 17:08
Collection Date/Time: 07/09/2019 09:15

Evergreen c/o Stantec
ELLE Sample #: GW 1097904
ELLE Group #: 2052789
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	210	1	5
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	76	0.2	1
10945	Isopropylbenzene	98-82-8	44	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	3	0.2	1
10945	Toluene	108-88-3	94	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	3 J	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	33	0.3	1
10945	Xylene (Total)	1330-20-7	220	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	0.4 J	0.1	1
14249	Benzo(a)anthracene	56-55-3	0.7	0.1	1
14249	Benzo(a)pyrene	50-32-8	1	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	2	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	2	0.1	1
14249	Chrysene	218-01-9	2	0.1	1
14249	Fluorene	86-73-7	1	0.1	1
14249	Naphthalene	91-20-3	71	0.1	1
14249	Phenanthrene	85-01-8	2	0.1	1
14249	Pyrene	129-00-0	2	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F191952AA	07/14/2019 18:52	Alexander D Sechrist	5
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F191961AA	07/15/2019 18:40	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191952AA	07/14/2019 18:51	Alexander D Sechrist	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F191961AA	07/15/2019 18:39	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19192WAC026	07/16/2019 19:28	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19192WAC026	07/11/2019 17:07	Christine E Gleim	1
10398	EDB in Wastewater	SW-846 8011	1	191930005A	07/15/2019 11:53	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191930005A	07/12/2019 21:00	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	191921404703A	07/16/2019 15:57	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191921404703	07/15/2019 04:24	James L Mertz	1

Sample Description: **MW-36_20190709 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/10/2019 17:08
Collection Date/Time: 07/09/2019 10:15

Evergreen c/o Stantec
ELLE Sample #: GW 1097905
ELLE Group #: 2052789
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	620	1	5
10945	Ethylbenzene	100-41-4	N.D.	1	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	5
10945	Naphthalene	91-20-3	N.D.	20	5
10945	Toluene	108-88-3	N.D.	1	5
10945	Xylene (Total)	1330-20-7	N.D.	3	5

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	UST BTEX,MTBE,Naphthalene 8260	SW-846 8260B	1	F191961AA	07/15/2019 17:12	Alexander D Sechrist	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191961AA	07/15/2019 17:11	Alexander D Sechrist	5

Sample Description: S-394_20190709 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 07/10/2019 17:08
Collection Date/Time: 07/09/2019 11:35

Evergreen c/o Stantec
ELLE Sample #: GW 1097906
ELLE Group #: 2052789
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.5 J	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191952AA	07/14/2019 18:30	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191952AA	07/14/2019 18:29	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19192WAC026	07/16/2019 20:25	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19192WAC026	07/11/2019 17:07	Christine E Gleim	1
10398	EDB in Wastewater	SW-846 8011	1	191930005A	07/15/2019 12:09	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191930005A	07/12/2019 21:00	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	191921404703A	07/16/2019 15:59	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191921404703	07/15/2019 04:24	James L Mertz	1

Sample Description: **S-193_20190709 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/10/2019 17:08
Collection Date/Time: 07/09/2019 13:40

Evergreen c/o Stantec
ELLE Sample #: GW 1097907
ELLE Group #: 2052789
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	140	0.2	1
10945	t-Butyl alcohol	75-65-0	62	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	7	0.2	1
10945	Isopropylbenzene	98-82-8	2 J	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	8	0.2	1
10945	Toluene	108-88-3	0.6 J	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	5 J	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	1 J	0.3	1
10945	Xylene (Total)	1330-20-7	4 J	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	0.5	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	0.012 JD1	0.0096	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191952AA	07/14/2019 13:24	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191952AA	07/14/2019 13:23	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19192WAC026	07/16/2019 20:54	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19192WAC026	07/11/2019 17:07	Christine E Gleim	1
10398	EDB in Wastewater	SW-846 8011	1	191930005A	07/15/2019 12:24	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191930005A	07/12/2019 21:00	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	191921404703A	07/16/2019 16:01	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191921404703	07/15/2019 04:24	James L Mertz	1

Sample Description: **N-151_SL_20190708 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/10/2019 17:08
Collection Date/Time: 07/08/2019 10:05

Evergreen c/o Stantec
ELLE Sample #: GW 1097908
ELLE Group #: 2052789
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	0.8 J	0.2	1
10945	Isopropylbenzene	98-82-8	5	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	0.2 J	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	1 J	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	13	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	0.3 J	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	0.6	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	0.4 J	0.1	1
14249	Pyrene	129-00-0	0.7	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F191952AA	07/14/2019 19:14	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191952AA	07/14/2019 19:13	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19192WAJ026	07/16/2019 16:55	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19192WAJ026	07/12/2019 10:00	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191930005A	07/15/2019 12:40	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191930005A	07/12/2019 21:00	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	191921404703A	07/16/2019 16:04	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191921404703	07/15/2019 04:24	James L Mertz	1

Sample Description: N-133_20190708 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 07/10/2019 17:08
Collection Date/Time: 07/08/2019 11:25

Evergreen c/o Stantec
ELLE Sample #: GW 1097909
ELLE Group #: 2052789
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	8,500	10	50
10945	1,2-Dichloroethane	107-06-2	N.D.	10	5
10945	Ethylbenzene	100-41-4	15	1	5
10945	Isopropylbenzene	98-82-8	8 J	2	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	5
10945	Toluene	108-88-3	3 J	1	5
10945	1,2,4-Trimethylbenzene	95-63-6	10 J	2	5
10945	1,3,5-Trimethylbenzene	108-67-8	3 J	2	5
10945	Xylene (Total)	1330-20-7	30	3	5
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	0.5	0.1	1
14249	Naphthalene	91-20-3	12	0.1	1
14249	Phenanthrene	85-01-8	0.6	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F191952AA	07/14/2019 19:36	Alexander D Sechrist	5
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F191952AA	07/14/2019 19:58	Alexander D Sechrist	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191952AA	07/14/2019 19:35	Alexander D Sechrist	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F191952AA	07/14/2019 19:57	Alexander D Sechrist	50
14249	PAHs 8270C MINI	SW-846 8270C	1	19192WAJ026	07/16/2019 17:25	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19192WAJ026	07/12/2019 10:00	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191930005A	07/15/2019 12:56	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191930005A	07/12/2019 21:00	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	191921404703A	07/16/2019 16:06	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191921404703	07/15/2019 04:24	James L Mertz	1

Sample Description: **S-337_SL_20190708 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/10/2019 17:08
Collection Date/Time: 07/08/2019 13:20

Evergreen c/o Stantec
ELLE Sample #: GW 1097910
ELLE Group #: 2052789
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	10	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	7	0.2	1
10945	Isopropylbenzene	98-82-8	49	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	4	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	2 J	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	9	0.3	1
10945	Xylene (Total)	1330-20-7	2 J	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	0.1 J	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	1	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	1	0.1	1
14249	Pyrene	129-00-0	0.4 J	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191952AA	07/14/2019 13:46	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191952AA	07/14/2019 13:45	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19192WAJ026	07/16/2019 17:55	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19192WAJ026	07/12/2019 10:00	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191930005A	07/15/2019 13:11	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191930005A	07/12/2019 21:00	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	191921404703A	07/16/2019 16:08	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191921404703	07/15/2019 04:24	James L Mertz	1

Sample Description: **S-22_20190709 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/10/2019 17:08
Collection Date/Time: 07/09/2019 08:30

Evergreen c/o Stantec
ELLE Sample #: GW 1097911
ELLE Group #: 2052789
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191952AA	07/14/2019 14:51	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191952AA	07/14/2019 14:50	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19192WAJ026	07/16/2019 18:25	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19192WAJ026	07/12/2019 10:00	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191930005A	07/15/2019 13:27	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191930005A	07/12/2019 21:00	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	191921404703A	07/16/2019 16:11	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191921404703	07/15/2019 04:24	James L Mertz	1

Sample Description: **S-25_20190709 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/10/2019 17:08
Collection Date/Time: 07/09/2019 09:20

Evergreen c/o Stantec
ELLE Sample #: GW 1097912
ELLE Group #: 2052789
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.09	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.09	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.09	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.09	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.09	1
14249	Chrysene	218-01-9	0.1 J	0.09	1
14249	Fluorene	86-73-7	N.D.	0.09	1
14249	Naphthalene	91-20-3	N.D.	0.09	1
14249	Phenanthrene	85-01-8	N.D.	0.09	1
14249	Pyrene	129-00-0	0.2 J	0.09	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191952AA	07/14/2019 15:13	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191952AA	07/14/2019 15:12	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19192WAJ026	07/16/2019 18:55	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19192WAJ026	07/12/2019 10:00	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191930005A	07/15/2019 13:42	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191930005A	07/12/2019 21:00	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	191921404703A	07/16/2019 16:18	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191921404703	07/15/2019 04:24	James L Mertz	1

Sample Description: **N-112_SL_20190709 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/10/2019 17:08
Collection Date/Time: 07/09/2019 10:50

Evergreen c/o Stantec
ELLE Sample #: GW 1097913
ELLE Group #: 2052789
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	2 J	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	5	0.1	1
14249	Benzo(a)anthracene	56-55-3	4	0.1	1
14249	Benzo(a)pyrene	50-32-8	2	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	1	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	0.8	0.1	1
14249	Chrysene	218-01-9	8	0.1	1
14249	Fluorene	86-73-7	9	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	9	0.1	1
14249	Pyrene	129-00-0	19	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F191952AA	07/14/2019 20:20	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191952AA	07/14/2019 20:19	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19192WAJ026	07/16/2019 19:26	Kira N Beck	1
07807	BNA Water Extraction	SW-846 3510C	1	19192WAJ026	07/12/2019 10:00	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191930005A	07/15/2019 13:58	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191930005A	07/12/2019 21:00	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	191921404703A	07/16/2019 15:26	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191921404703	07/15/2019 04:24	James L Mertz	1

Sample Description: **S-376_SL_20190709 Grab Groundwater**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/10/2019 17:08
Collection Date/Time: 07/09/2019 12:20

Evergreen c/o Stantec
ELLE Sample #: GW 1097914
ELLE Group #: 2052789
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	
10945	Benzene	71-43-2	150		1	5
10945	t-Butyl alcohol	75-65-0	69	J	50	5
10945	1,2-Dichloroethane	107-06-2	N.D.		10	5
10945	Ethylbenzene	100-41-4	970		10	50
10945	Isopropylbenzene	98-82-8	25	J	2	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		1	5
10945	Toluene	108-88-3	2,000		10	50
10945	1,2,4-Trimethylbenzene	95-63-6	1,300		15	50
10945	1,3,5-Trimethylbenzene	108-67-8	420		2	5
10945	Xylene (Total)	1330-20-7	6,100		25	50
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	
14249	Anthracene	120-12-7	N.D.		0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.		0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.		0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.		0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.		0.1	1
14249	Chrysene	218-01-9	N.D.		0.1	1
14249	Fluorene	86-73-7	0.2	J	0.1	1
14249	Naphthalene	91-20-3	250		0.5	5
14249	Phenanthrene	85-01-8	0.3	J	0.1	1
14249	Pyrene	129-00-0	0.3	J	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D.	D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	
06035	Lead	7439-92-1	N.D.		1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191952AA	07/14/2019 15:35	Alexander D Sechrist	5
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F191952AA	07/14/2019 15:57	Alexander D Sechrist	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191952AA	07/14/2019 15:34	Alexander D Sechrist	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F191952AA	07/14/2019 15:56	Alexander D Sechrist	50
14249	PAHs 8270C MINI	SW-846 8270C	1	19192WAJ026	07/16/2019 19:56	Kira N Beck	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19192WAJ026	07/17/2019 04:50	Brandon K Cordova	5
07807	BNA Water Extraction	SW-846 3510C	1	19192WAJ026	07/12/2019 10:00	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191930005A	07/15/2019 14:13	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191930005A	07/12/2019 21:00	Bradley W VanLeuven	1

Sample Description: **S-376_SL_20190709 Grab Groundwater 2019 Annual GWS PHL**

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/10/2019 17:08
Collection Date/Time: 07/09/2019 12:20

Evergreen c/o Stantec
ELLE Sample #: GW 1097914
ELLE Group #: 2052789
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	191921404703A	07/16/2019 16:20	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191921404703	07/15/2019 04:24	James L Mertz	1

Sample Description: **TB_20190709 Water**
2019 Annual GWS PHL

Project Name: **2019 Annual GWS PHL**

Submittal Date/Time: 07/10/2019 17:08
Collection Date/Time: 06/05/2019

Evergreen c/o Stantec
ELLE Sample #: GW 1097915
ELLE Group #: 2052789
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dibromoethane	106-93-4	N.D.	0.3	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1

The requirement for no headspace at the time of analysis was not met. The container used for the testing had headspace at the time of analysis.

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cum/EDB/EDC/TBA /TMBs	SW-846 8260B	1	F191951AA	07/14/2019 13:14	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191951AA	07/14/2019 13:13	Alexander D Sechrist	1

Sample Description: C-146_20190709 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 07/10/2019 17:08
Collection Date/Time: 07/09/2019 08:55

Evergreen c/o Stantec
ELLE Sample #: GW 1097916
ELLE Group #: 2052789
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	0.4 J	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	19	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	0.6 J	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	14	0.1	1
14249	Benzo(a)anthracene	56-55-3	12	0.1	1
14249	Benzo(a)pyrene	50-32-8	9	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	10	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	3	0.1	1
14249	Chrysene	218-01-9	15	0.1	1
14249	Fluorene	86-73-7	22	0.1	1
14249	Naphthalene	91-20-3	9	0.1	1
14249	Phenanthrene	85-01-8	72	0.1	1
14249	Pyrene	129-00-0	34	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F191952AA	07/14/2019 20:42	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191952AA	07/14/2019 20:41	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19192WAJ026	07/17/2019 02:50	Brandon K Cordova	1
07807	BNA Water Extraction	SW-846 3510C	1	19192WAJ026	07/12/2019 10:00	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191930005A	07/15/2019 15:00	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191930005A	07/12/2019 21:00	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	191921404703A	07/16/2019 16:22	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191921404703	07/15/2019 04:24	James L Mertz	1

Sample Description: B-39-SL_20190708 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 07/10/2019 17:08
Collection Date/Time: 07/08/2019 13:45

Evergreen c/o Stantec
ELLE Sample #: GW 1097917
ELLE Group #: 2052789
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	5	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	0.6 J	0.2	1
10945	Isopropylbenzene	98-82-8	31	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	3	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	0.4 J	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	5 J	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	4	0.1	1
14249	Benzo(a)anthracene	56-55-3	2	0.1	1
14249	Benzo(a)pyrene	50-32-8	1	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	2	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	0.7	0.1	1
14249	Chrysene	218-01-9	2	0.1	1
14249	Fluorene	86-73-7	9	0.1	1
14249	Naphthalene	91-20-3	2	0.1	1
14249	Phenanthrene	85-01-8	13	0.1	1
14249	Pyrene	129-00-0	4	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	272	5.4	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F191952AA	07/14/2019 21:03	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191952AA	07/14/2019 21:02	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19192WAJ026	07/17/2019 03:20	Brandon K Cordova	1
07807	BNA Water Extraction	SW-846 3510C	1	19192WAJ026	07/12/2019 10:00	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191930005A	07/15/2019 15:16	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191930005A	07/12/2019 21:00	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	191931404701A	07/15/2019 15:55	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191931404701	07/15/2019 05:32	James L Mertz	1

Sample Description: C-168-SL_20190709 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 07/10/2019 17:08
Collection Date/Time: 07/09/2019 12:05

Evergreen c/o Stantec
ELLE Sample #: GW 1097918
ELLE Group #: 2052789
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	110	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	2	0.2	1
10945	Isopropylbenzene	98-82-8	0.4 J	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	25	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	2 J	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	0.5 J	0.3	1
10945	Xylene (Total)	1330-20-7	13	0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	0.6	0.1	1
14249	Benzo(a)anthracene	56-55-3	0.4 J	0.1	1
14249	Benzo(a)pyrene	50-32-8	0.4 J	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	0.4 J	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	0.2 J	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	2	0.1	1
14249	Naphthalene	91-20-3	6	0.1	1
14249	Phenanthrene	85-01-8	3	0.1	1
14249	Pyrene	129-00-0	2	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F191961AA	07/15/2019 19:02	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191961AA	07/15/2019 19:01	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19192WAJ026	07/17/2019 03:51	Brandon K Cordova	1
07807	BNA Water Extraction	SW-846 3510C	1	19192WAJ026	07/12/2019 10:00	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191930005A	07/15/2019 15:31	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191930005A	07/12/2019 21:00	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	191921404703A	07/16/2019 16:25	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191921404703	07/15/2019 04:24	James L Mertz	1

Sample Description: C-106-SL_20190709 Grab Groundwater
2019 Annual GWS PHL

Project Name: 2019 Annual GWS PHL

Submittal Date/Time: 07/10/2019 17:08
Collection Date/Time: 07/09/2019 14:35

Evergreen c/o Stantec
ELLE Sample #: GW 1097919
ELLE Group #: 2052789
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	
10945	Benzene	71-43-2	N.D.		0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.		2	1
10945	Ethylbenzene	100-41-4	N.D.		0.2	1
10945	Isopropylbenzene	98-82-8	N.D.		0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.2	1
10945	Toluene	108-88-3	N.D.		0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.		0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.		0.3	1
10945	Xylene (Total)	1330-20-7	N.D.		0.5	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	
14249	Anthracene	120-12-7	0.5		0.1	1
14249	Benzo(a)anthracene	56-55-3	0.7		0.1	1
14249	Benzo(a)pyrene	50-32-8	0.4	J	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	0.5		0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	0.3	J	0.1	1
14249	Chrysene	218-01-9	0.8		0.1	1
14249	Fluorene	86-73-7	1		0.1	1
14249	Naphthalene	91-20-3	N.D.		0.1	1
14249	Phenanthrene	85-01-8	0.9		0.1	1
14249	Pyrene	129-00-0	2		0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D.	D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	
06035	Lead	7439-92-1	N.D.		1.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F191961AA	07/15/2019 19:23	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F191961AA	07/15/2019 19:22	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19192WAJ026	07/17/2019 04:21	Brandon K Cordova	1
07807	BNA Water Extraction	SW-846 3510C	1	19192WAJ026	07/12/2019 10:00	Jeancarlo Morales	1
10398	EDB in Wastewater	SW-846 8011	1	191930005A	07/15/2019 15:47	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	191930005A	07/12/2019 21:00	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	191921404703A	07/16/2019 16:27	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	191921404703	07/15/2019 04:24	James L Mertz	1

Quality Control Summary

Client Name: Evergreen c/o Stantec Group Number: 2052789
Reported: 07/19/2019 09:56

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	ug/l	ug/l
Batch number: F191951AA	Sample number(s): 1097915	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
1,2-Dibromoethane	N.D.	0.3
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.5
Batch number: F191952AA	Sample number(s): 1097899-1097904,1097906-1097914,1097916-1097917	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.5
Batch number: F191961AA	Sample number(s): 1097904-1097905,1097918-1097919	
Benzene	N.D.	0.2
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Naphthalene	N.D.	4
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.5
Batch number: Z191961AA	Sample number(s): 1097899-1097900	
t-Butyl alcohol	N.D.	10
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Group Number: 2052789
Reported: 07/19/2019 09:56

Method Blank (continued)

Analysis Name	Result	MDL
	ug/l	ug/l
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.5
Batch number: Z191971AA	Sample number(s): 1097901	
t-Butyl alcohol	N.D.	10
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.5
Batch number: 19192WAC026	Sample number(s): 1097899-1097904,1097906-1097907	
Anthracene	N.D.	0.1
Benzo(a)anthracene	N.D.	0.1
Benzo(a)pyrene	N.D.	0.1
Benzo(b)fluoranthene	N.D.	0.1
Benzo(g,h,i)perylene	N.D.	0.1
Chrysene	N.D.	0.1
Fluorene	N.D.	0.1
Naphthalene	N.D.	0.1
Phenanthrene	N.D.	0.1
Pyrene	N.D.	0.1
Batch number: 19192WAJ026	Sample number(s): 1097908-1097914,1097916-1097919	
Anthracene	N.D.	0.1
Benzo(a)anthracene	N.D.	0.1
Benzo(a)pyrene	N.D.	0.1
Benzo(b)fluoranthene	N.D.	0.1
Benzo(g,h,i)perylene	N.D.	0.1
Chrysene	N.D.	0.1
Fluorene	N.D.	0.1
Naphthalene	N.D.	0.1
Phenanthrene	N.D.	0.1
Pyrene	N.D.	0.1
Batch number: 191930005A	Sample number(s): 1097899-1097904,1097906-1097914,1097916-1097919	
Ethylene dibromide	N.D.	0.010
Batch number: 191921404703A	Sample number(s): 1097899-1097904,1097906-1097914,1097916,1097918-1097919	
Lead	N.D.	1.1

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 07/19/2019 09:56

Group Number: 2052789

Method Blank (continued)

Analysis Name	Result	MDL
	ug/l	ug/l
Batch number: 191931404701A	Sample number(s): 1097917	
Lead	N.D.	1.1

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F191951AA	Sample number(s): 1097915								
Benzene	20	21.15			106		80-120		
t-Butyl alcohol	200	182.64			91		60-130		
1,2-Dibromoethane	20	20.51			103		77-120		
1,2-Dichloroethane	20	17.44			87		73-124		
Ethylbenzene	20	19.82			99		80-120		
Isopropylbenzene	20	19.16			96		80-120		
Methyl Tertiary Butyl Ether	20	18.2			91		69-122		
Toluene	20	20.94			105		80-120		
1,2,4-Trimethylbenzene	20	19.95			100		75-120		
1,3,5-Trimethylbenzene	20	19.62			98		75-120		
Xylene (Total)	60	61.82			103		80-120		
Batch number: F191952AA	Sample number(s): 1097899-1097904,1097906-1097914,1097916-1097917								
Benzene	20	20.65			103		80-120		
t-Butyl alcohol	200	190.27			95		60-130		
1,2-Dichloroethane	20	17.39			87		73-124		
Ethylbenzene	20	19.29			96		80-120		
Isopropylbenzene	20	19.4			97		80-120		
Methyl Tertiary Butyl Ether	20	19.71			99		69-122		
Toluene	20	20.79			104		80-120		
1,2,4-Trimethylbenzene	20	19.28			96		75-120		
1,3,5-Trimethylbenzene	20	19.05			95		75-120		
Xylene (Total)	60	61.09			102		80-120		
Batch number: F191961AA	Sample number(s): 1097904-1097905,1097918-1097919								
Benzene	20	21.71	20	21.49	109	107	80-120	1	30
1,2-Dichloroethane	20	17.62	20	16.88	88	84	73-124	4	30
Ethylbenzene	20	20.36	20	19.91	102	100	80-120	2	30
Isopropylbenzene	20	20.01	20	19.59	100	98	80-120	2	30
Methyl Tertiary Butyl Ether	20	19.95	20	19.11	100	96	69-122	4	30
Naphthalene	20	19.72	20	18.36	99	92	53-124	7	30
Toluene	20	21.57	20	20.85	108	104	80-120	3	30
1,2,4-Trimethylbenzene	20	20.34	20	20.03	102	100	75-120	2	30
1,3,5-Trimethylbenzene	20	20.13	20	19.51	101	98	75-120	3	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 07/19/2019 09:56

Group Number: 2052789

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Xylene (Total)	60	64.01	60	62.64	107	104	80-120	2	30
Batch number: Z191961AA	Sample number(s): 1097899-1097900								
t-Butyl alcohol	200	212.84			106		60-130		
1,2-Dichloroethane	20	18.47			92		73-124		
Ethylbenzene	20	19.91			100		80-120		
Isopropylbenzene	20	21.05			105		80-120		
Methyl Tertiary Butyl Ether	20	18.74			94		69-122		
Toluene	20	20.56			103		80-120		
1,2,4-Trimethylbenzene	20	19.86			99		75-120		
1,3,5-Trimethylbenzene	20	19.58			98		75-120		
Xylene (Total)	60	63.21			105		80-120		
Batch number: Z191971AA	Sample number(s): 1097901								
t-Butyl alcohol	200	206.5			103		60-130		
1,2-Dichloroethane	20	17.44			87		73-124		
Ethylbenzene	20	18.43			92		80-120		
Isopropylbenzene	20	19.28			96		80-120		
Methyl Tertiary Butyl Ether	20	17.71			89		69-122		
Toluene	20	18.75			94		80-120		
1,2,4-Trimethylbenzene	20	18.38			92		75-120		
1,3,5-Trimethylbenzene	20	18.13			91		75-120		
Xylene (Total)	60	58.21			97		80-120		
	ug/l	ug/l	ug/l	ug/l					
Batch number: 19192WAC026	Sample number(s): 1097899-1097904,1097906-1097907								
Anthracene	50	49.2	50	51.38	98	103	67-112	4	30
Benzo(a)anthracene	50	53.83	50	55.28	108	111	70-118	3	30
Benzo(a)pyrene	50	52.08	50	52.99	104	106	71-117	2	30
Benzo(b)fluoranthene	50	52.33	50	54.1	105	108	71-115	3	30
Benzo(g,h,i)perylene	50	52.6	50	54.16	105	108	62-113	3	30
Chrysene	50	52.48	50	53.86	105	108	69-116	3	30
Fluorene	50	48.26	50	48.55	97	97	62-110	1	30
Naphthalene	50	39.37	50	39.32	79	79	53-99	0	30
Phenanthrene	50	49.41	50	50.73	99	101	65-113	3	30
Pyrene	50	52.35	50	53.56	105	107	68-110	2	30
Batch number: 19192WAJ026	Sample number(s): 1097908-1097914,1097916-1097919								
Anthracene	50	49.06	50	51.08	98	102	67-112	4	30
Benzo(a)anthracene	50	45.32	50	47.58	91	95	70-118	5	30
Benzo(a)pyrene	50	49.07	50	48.81	98	98	71-117	1	30
Benzo(b)fluoranthene	50	49.41	50	49.23	99	98	71-115	0	30
Benzo(g,h,i)perylene	50	47.66	50	47.52	95	95	62-113	0	30
Chrysene	50	48.94	50	50.04	98	100	69-116	2	30
Fluorene	50	49.7	50	47.79	99	96	62-110	4	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P####### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 07/19/2019 09:56

Group Number: 2052789

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Naphthalene	50	42.45	50	44.55	85	89	53-99	5	30
Phenanthrene	50	50.24	50	50.12	100	100	65-113	0	30
Pyrene	50	49.6	50	49.98	99	100	68-110	1	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 191930005A	Sample number(s): 1097899-1097904,1097906-1097914,1097916-1097919								
Ethylene dibromide	0.128	0.159	0.128	0.156	125	122	60-140	2	20
	ug/l	ug/l	ug/l	ug/l					
Batch number: 191921404703A	Sample number(s): 1097899-1097904,1097906-1097914,1097916,1097918-1097919								
Lead	15	15.76			105		90-110		
Batch number: 191931404701A	Sample number(s): 1097917								
Lead	15	16.09			107		90-110		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: F191951AA	Sample number(s): 1097915 UNSPK: P097223									
Benzene	N.D.	20	22.32	20	17.3	112	87	80-120	25	30
t-Butyl alcohol	N.D.	200	181.48	200	133.53	91	67	60-130	30	30
1,2-Dibromoethane	N.D.	20	20.16	20	15.51	101	78	77-120	26	30
1,2-Dichloroethane	N.D.	20	17.42	20	13.3	87	67*	73-124	27	30
Ethylbenzene	N.D.	20	20.47	20	15.92	102	80	80-120	25	30
Isopropylbenzene	N.D.	20	20.45	20	15.33	102	77*	80-120	29	30
Methyl Tertiary Butyl Ether	0.442	20	19.41	20	14.73	95	71	69-122	27	30
Toluene	N.D.	20	21.61	20	16.79	108	84	80-120	25	30
1,2,4-Trimethylbenzene	N.D.	20	20.16	20	16.02	101	80	75-120	23	30
1,3,5-Trimethylbenzene	N.D.	20	20.6	20	15.61	103	78	75-120	28	30
Xylene (Total)	N.D.	60	63.41	60	48.58	106	81	80-120	26	30
Batch number: F191952AA	Sample number(s): 1097899-1097904,1097906-1097914,1097916-1097917 UNSPK: 1097910									
Benzene	10.25	20	32.38	20	33.22	111	115	80-120	3	30
t-Butyl alcohol	N.D.	200	176.03	200	177.99	88	89	60-130	1	30
1,2-Dichloroethane	N.D.	20	17.57	20	18.21	88	91	73-124	4	30
Ethylbenzene	6.54	20	27.37	20	27.88	104	107	80-120	2	30
Isopropylbenzene	48.85	20	68.97	20	68.3	101	97	80-120	1	30
Methyl Tertiary Butyl Ether	N.D.	20	18.65	20	19.54	93	98	69-122	5	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 07/19/2019 09:56

Group Number: 2052789

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Toluene	3.84	20	25.47	20	26.48	108	113	80-120	4	30
1,2,4-Trimethylbenzene	1.60	20	21.21	20	21.73	98	101	75-120	2	30
1,3,5-Trimethylbenzene	8.50	20	28.9	20	28.54	102	100	75-120	1	30
Xylene (Total)	2.34	60	63.37	60	67	102	108	80-120	6	30
Batch number: Z191961AA	Sample number(s): 1097899-1097900 UNSPK: P100121									
t-Butyl alcohol	N.D.	200	193.87	200	211.26	97	106	60-130	9	30
1,2-Dichloroethane	N.D.	20	17.34	20	18.67	87	93	73-124	7	30
Ethylbenzene	N.D.	20	19.22	20	20.87	96	104	80-120	8	30
Isopropylbenzene	N.D.	20	20.54	20	21.92	103	110	80-120	6	30
Methyl Tertiary Butyl Ether	1.70	20	19.12	20	20.33	87	93	69-122	6	30
Toluene	N.D.	20	19.83	20	21.74	99	109	80-120	9	30
1,2,4-Trimethylbenzene	N.D.	20	19.12	20	20.27	96	101	75-120	6	30
1,3,5-Trimethylbenzene	N.D.	20	18.93	20	20.37	95	102	75-120	7	30
Xylene (Total)	N.D.	60	61.54	60	66.38	103	111	80-120	8	30
Batch number: Z191971AA	Sample number(s): 1097901 UNSPK: P099909									
t-Butyl alcohol	N.D.	200	207.2	200	211.06	104	106	60-130	2	30
1,2-Dichloroethane	N.D.	20	18.2	20	18.53	91	93	73-124	2	30
Ethylbenzene	N.D.	20	20.73	20	20.78	104	104	80-120	0	30
Isopropylbenzene	N.D.	20	22.03	20	22.4	110	112	80-120	2	30
Methyl Tertiary Butyl Ether	15.98	20	33.45	20	34.28	87	92	69-122	2	30
Toluene	N.D.	20	21.14	20	21.22	106	106	80-120	0	30
1,2,4-Trimethylbenzene	N.D.	20	20.12	20	20.32	101	102	75-120	1	30
1,3,5-Trimethylbenzene	N.D.	20	20.12	20	20.36	101	102	75-120	1	30
Xylene (Total)	N.D.	60	65.32	60	65.45	109	109	80-120	0	30
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 191930005A	Sample number(s): 1097899-1097904,1097906-1097914,1097916-1097919 UNSPK: 1097899									
Ethylene dibromide	N.D.	0.122	0.143			118		60-140		
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 191921404703A	Sample number(s): 1097899-1097904,1097906-1097914,1097916,1097918-1097919 UNSPK: 1097913									
Lead	N.D.	15	15.6	15	15.69	104	105	75-125	1	20
Batch number: 191931404701A	Sample number(s): 1097917 UNSPK: P099004									
Lead	5.48	15	21.51	15	21.2	107	105	75-125	1	20

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 07/19/2019 09:56

Group Number: 2052789

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc	DUP Conc	DUP RPD	DUP RPD Max
	ug/l	ug/l		
Batch number: 191930005A	Sample number(s): 1097899-1097904,1097906-1097914,1097916-1097919 BKG: 1097900			
Ethylene dibromide	N.D.	N.D.	0 (1)	30
	ug/l	ug/l		
Batch number: 191921404703A	Sample number(s): 1097899-1097904,1097906-1097914,1097916,1097918-1097919 BKG: 1097913			
Lead	N.D.	N.D.	0 (1)	20
Batch number: 191931404701A	Sample number(s): 1097917 BKG: P099004			
Lead	5.48	6.12	11 (1)	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX/MTBE/Cum/EDB/EDC/TBA/TMBs
Batch number: F191951AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1097915	97	96	102	95
Blank	99	98	101	92
LCS	96	100	100	95
MS	98	97	98	95
MSD	98	97	99	95
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: F191952AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1097902	95	96	100	96
1097903	95	97	100	92
1097906	98	96	98	94
1097907	94	93	100	97
1097908	97	95	99	92
1097909	92	95	98	95
1097910	94	90	98	107
1097911	98	99	100	92
1097912	97	95	100	90
1097913	98	97	100	98
1097914	96	94	100	97
1097916	97	95	101	113

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 07/19/2019 09:56

Group Number: 2052789

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: F191952AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1097917	92	97	100	103
Blank	96	97	100	91
LCS	96	101	102	95
MS	93	98	101	120
MSD	96	93	101	117
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TMBs
Batch number: F191961AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1097904	95	92	101	114
1097905	97	92	100	91
1097918	99	96	99	93
1097919	97	99	100	94
Blank	95	97	98	91
LCS	98	101	99	95
LCSD	97	99	100	95
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: Z191961AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1097899	95	99	96	100
1097900	95	99	96	102
Blank	97	98	97	95
LCS	97	101	97	96
MS	97	100	96	94
MSD	96	101	96	95
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: Z191971AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1097901	94	98	95	99
Blank	97	98	97	94
LCS	96	101	97	94
MS	95	101	97	95
MSD	96	101	97	95

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P####### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 07/19/2019 09:56

Group Number: 2052789

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: Z191971AA

Limits:	80-120	80-120	80-120	80-120

Analysis Name: PAHs 8270C MINI
Batch number: 19192WAC026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
1097899	62	57	61
1097900	93	86	76
1097901	88	83	71
1097902	87	79	70
1097903	86	81	59
1097904	85	80	77
1097906	88	85	76
1097907	86	77	67
Blank	87	78	94
LCS	89	89	101
LCSD	91	89	105
Limits:	35-107	44-102	33-126

Analysis Name: PAHs 8270C MINI
Batch number: 19192WAJ026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
1097908	66	75	52
1097909	62	60	36
1097910	62	70	54
1097911	80	84	62
1097912	81	84	61
1097913	71	80	62
1097914	65	61	55
1097916	78	78	59
1097917	61	71	52
1097918	67	78	62
1097919	75	90	65
Blank	81	82	77
LCS	79	80	76
LCSD	76	83	85
Limits:	35-107	44-102	33-126

Analysis Name: EDB in Wastewater
Batch number: 191930005A

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 07/19/2019 09:56

Group Number: 2052789

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: EDB in Wastewater
Batch number: 191930005A

	1,1,2,2-Tetrachloroethane-D1	1,1,2,2-Tetrachloroethane-D2
1097899	72	64
1097900	72	62
1097901	65	63
1097902	76	67
1097903	60	59
1097904	62	64
1097906	50	53
1097907	53	58
1097908	51	48
1097909	68	59
1097910	64	61
1097911	58	55
1097912	49	51
1097913	54	54
1097914	92	105
1097916	70	53
1097917	63	58
1097918	61	54
1097919	54	53
Blank	61	62
DUP	79	68
LCS	69	71
LCSD	63	64
MS	65	55
Limits:	46-136	46-136

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Environmental Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories Environmental use only
Acct. # 116657 Group # 2052789 Sample # 1097899-919

COC #586797

Client Information

Client: Stantec
Acct. #: Evergreen c/o 16657 Stantec
Project Name/#: 2019 Annual GWS PHL
PWSID #:
Project Manager: Jennifer Menges
P.O. #: 2134024129
Sampler: Dana Hublitzell
Quote #:
State where samples were collected: PA
For Compliance: Yes ☐ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ | Water ☒ Potable ☐ Ground ☐ NPDES ☐ Surface ☐ | Other: ____

Analysis Requested

Preservation and Filtration Codes: H | H | N | | H

For Lab Use Only

FSC:
SCR#:

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks
* Lead field filtered
* For list of analytes refer to attached Evergreen shortlist

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	Evergreen VOC 8260	EDB 8011	Dissolved Lead	PAH 8270	TBA 8260
DUP-7_20190708	7/8/19	—	X		8	X	X	X	X	X
ARCO-2_20190708	7/8/19	1000	X		8	X	X	X	X	X
ARCO-1_20190708	7/8/19	1135	X		8	X	X	X	X	X
ARCO-3_20190708	7/8/19	1310	X		8	X	X	X	X	X
S-395_20190708	7/8/19	1430	X		8	X	X	X	X	X
V-MW-2_20190709	7/9/19	0915	X		8	X	X	X	X	
MW-36_20190709	7/9/19	1015	X		8	X	X	X	X	X
S-394_20190709	7/9/19	1135	X		8	X	X	X	X	X
S-193_20190709	7/9/19	1340	X		8	X	X	X	X	X

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: ____

E-mail address: Jennifer.Menges@Stantec.com

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
				7/10/19	1315
	7/10/19	1715			
				7.10.19	1708

EDD Required? (Yes) No
If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:
UPS ____ FedEx ____ Other ____

Temperature upon receipt 1.2 °C

Environmental Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories Environmental use only
Acct. # 116657 Group # 2052789 Sample # 1097899-919

COC #586797

Client Information

Client: Stantec	Acct. #: Evergreen c/o 116657 Stantec
Project Name/#: 2019 Annual GWS PHL	PWSID #:
Project Manager: Jennifer Menges	P.O. #: 213402429
Sampler: Dane Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ | Water ☒ | Potable ☐ Ground ☐ NPDES ☐ Surface ☐ | Other: Trip Blank

Analysis Requested

Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Sediment	Tissue	Water	Potable	Ground	NPDES	Surface	Other	Total # of Containers	Evergreen VOC 8260	EDB Soil	Dissolved Lead	PAH 8270	TBA 8260
N-151_SL_20190708	7/8/19	1005	X					X						8	X	X	X	X	
N-133_20190708		1125	X					X						8	X	X	X	X	
S-337_SL_20190708		1320	X					X						8	X	X	X	X	X
S-22_20190709	7/9/19	0830	X					X						8	X	X	X	X	X
S-25_20190709		0920	X					X						8	X	X	X	X	X
N-112_SL_20190709		1050	X					X						8	X	X	X	X	
S-376_SL_20190709		1220	X					X						8	X	X	X	X	X
TB_20190709	6/5/19	—	X					TB						2	X				X

For Lab Use Only
FSC:
SCR#:

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks

*Need field filtered for list of analytes refer to attached Evergreen Sheet List

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days:

E-mail address: Jennifer.Menges@Stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
	7/10/19	12:55		7/10/19	13:55
	7/10/19	17:08			
				7.10.19	1708

EDD Required? Yes No
If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:
UPS FedEx Other

Temperature upon receipt 1.2 °C

Environmental Analysis Request/Chain of Custody

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Acct. # 16657 Group # 2052789 Sample # 1097899-919

COC #586797

Client Information

Client: Stante	Acct. #: Evergreen c/o 16657 Stante
Project Name/#: 2019 Annual GWSPHC	PWSID #:
Project Manager: Jennifer Menges	P.O. #:
Sampler: Doulton Campbell	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: ____

Analysis Requested — Preservation and Filtration Codes

Sample Identification (DC)	Collected Date	Collected Time	Grab	Composite	Soil	Water	Other	Total # of Containers	Evergreen VOC 8260 (H)	EDB soil (H)	Dissolved lead (field filtered)	PAH 8270	TBA 8260 (H)						Remarks
C-146 ~~[illegible]~~ - 20190709	07/09	0855	X			X		8	X	X	X	X							
B-39-SL - 20190708	07/08	1345	X			X		8	X	X	X	X							
C-168-SL - 20190709	07/09	1205	X			X		8	X	X	X	X							
C-106-SL - 20190709	07/09	1435	X			X		8	X	X	X	X							

For Lab Use Only

FSC: ____

SCR#: 244057

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks

* disolved lead (field filtered)
* for list of analytes refer to short List attached

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: ____

E-mail address: Jennifer.Menges@stante.com

Relinquished by	Date	Time	Received by	Date	Time
[signature]	7/10/19	13:55	[signature]	7/13/19	13:58
[signature]	7/10/19	17:08	[signature]		
			[signature]	7/10/19	1708

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)

Type III (Reduced non-CLP) NJ DKQP TX TRRP-13

NYSDEC Category A or B MA MCP CT RCP

EDD Required? Yes No

If yes, format: EQuis

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other ____

Temperature upon receipt 1.2-7.2°C

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The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0718

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Sample Administration Receipt Documentation Log

Doc Log ID: 221003

Group Number(s): 2052789

Client: EQCL

Delivery and Receipt Information

Delivery Method:	EQCL Drop Off	Arrival Timestamp:	07/06/2018 19:40
Number of Packages:	1	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	Total Trip Blank Qty:	2
Samples Chilled:	Yes	Trip Blank Type:	See Below
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	Yes		

Unpacked by Cory Jeremiah (10469) at 20:19 on 07/06/2018

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT42-01	4.6	DT	Wet	Y	Bagged	N

Container Quantity Discrepancy Details

Sample ID on COC	Container Qty. Received	Container Qty. on COC	Comments
B-39-SL_20190708	7	8	Missing Metals Bottle

General Comments: L7046438-6 (1 asc. acid) - Cooler 502

2425 New Holland Pike
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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report
B	Detection in the Blank
Q0	LCS/LCSD Low
Q1	LCS/LCSD High
Q2	MS/MSD Low
Q3	MS/MSD High
Q7	LCS/LCSD RPD
Q8	DUP RPD
Q9	MS/MSD RPD

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

Report Date: November 12, 2019 14:01

Project: 2019 Q4 GWS PHL

Account #: 16657
Group Number: 2071371
PO Number: 213402429
State of Sample Origin: PA

Electronic Copy To	Evergreen c/o Stantec	Attn: Jennifer Menges
Electronic Copy To	Evergreen c/o Stantec	Attn: Andrew Bradley

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
N-69_20191022 Grab Groundwater	10/22/2019 11:25	1185665
Trip Blank Water	10/23/2019	1185666
N-30_20191023 Grab Groundwater	10/23/2019 10:40	1185667
N-157_20191023 Grab Groundwater	10/23/2019 12:00	1185668
N-9_20191023 Grab Groundwater	10/23/2019 13:55	1185669
S-72D_20191024 Grab Groundwater	10/24/2019 12:25	1185670
S-302D_20191024 Grab Groundwater	10/24/2019 13:40	1185671
S-42I_20191025 Grab Groundwater	10/25/2019 11:40	1185672
S-388D_20191025 Grab Groundwater	10/25/2019 12:45	1185673
N-152_20191023 Grab Groundwater	10/23/2019 11:00	1185674
N-85_20191023 Grab Groundwater	10/23/2019 12:25	1185675
N-98_20191023 Grab Groundwater	10/23/2019 14:10	1185676
S-374_20191023 Grab Groundwater	10/23/2019 11:09	1185677
S-378_20191023 Grab Groundwater	10/23/2019 12:12	1185678
S-375_20191023 Grab Groundwater	10/23/2019 10:04	1185679
S-369_20191023 Grab Groundwater	10/23/2019 14:10	1185680
S-223_20191023 Grab Groundwater	10/23/2019 13:28	1185681
DUP-1 Grab Groundwater	10/23/2019	1185682
EB_20191023 Grab Water	10/23/2019 08:45	1185683
S-150SRTF_20191023 Grab Groundwater	10/23/2019 10:20	1185684
S-146SRTF_20191023 Grab Groundwater	10/23/2019 11:15	1185685
S-149SRTF_20191023 Grab Groundwater	10/23/2019 11:50	1185686
S-147SRTF_20191023 Grab Groundwater	10/23/2019 12:35	1185687
S-148SRTF_20191023 Grab Groundwater	10/23/2019 13:30	1185688

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Sample Description: **N-69_20191022 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/25/2019 16:48
Collection Date/Time: 10/22/2019 11:25

Evergreen c/o Stantec
ELLE Sample #: GW 1185665
ELLE Group #: 2071371
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	0.3 J	0.2	1
10945	Isopropylbenzene	98-82-8	1 J	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	0.2 J	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	D193091AA	11/05/2019 15:28	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193091AA	11/05/2019 15:27	Anita M Dale	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19301WAJ026	11/11/2019 16:58	Edward C Monborne	1
07807	BNA Water Extraction	SW-846 3510C	1	19301WAJ026	10/29/2019 02:00	Mathias Okpo	1
10398	EDB in Wastewater	SW-846 8011	1	193030015A	10/31/2019 12:38	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193030015A	10/30/2019 23:25	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	193031404703A	11/01/2019 12:37	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193031404703	10/31/2019 13:45	JoElla L Rice	1

Sample Description: **Trip Blank Water**
2019 Q4 GWS PHL

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/25/2019 16:48
Collection Date/Time: 10/23/2019

Evergreen c/o Stantec
ELLE Sample #: GW 1185666
ELLE Group #: 2071371
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	Z193082AA	11/04/2019 11:05	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z193082AA	11/04/2019 11:04	Anita M Dale	1
10398	EDB in Wastewater	SW-846 8011	1	193030015A	10/31/2019 12:53	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193030015A	10/30/2019 23:25	Bradley W VanLeuven	1

Sample Description: N-30_20191023 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 10/25/2019 16:48
Collection Date/Time: 10/23/2019 10:40

Evergreen c/o Stantec
ELLE Sample #: GW 1185667
ELLE Group #: 2071371
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	Z193081AA	11/04/2019 11:17	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z193081AA	11/04/2019 11:16	Anita M Dale	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19303WAC026	11/08/2019 15:10	William H Saadeh	1
07807	BNA Water Extraction	SW-846 3510C	1	19303WAC026	10/30/2019 17:53	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193030015A	10/31/2019 13:41	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193030015A	10/30/2019 23:25	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	193031404702A	11/06/2019 10:06	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193031404702	10/31/2019 13:45	JoElla L Rice	1

Sample Description: **N-157_20191023 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/25/2019 16:48
Collection Date/Time: 10/23/2019 12:00

Evergreen c/o Stantec
ELLE Sample #: GW 1185668
ELLE Group #: 2071371
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	750	1	5
10945	1,2-Dichloroethane	107-06-2	N.D.	10	5
10945	Ethylbenzene	100-41-4	83	1	5
10945	Isopropylbenzene	98-82-8	30	2	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	5
10945	Toluene	108-88-3	120	1	5
10945	1,2,4-Trimethylbenzene	95-63-6	3 J	2	5
10945	1,3,5-Trimethylbenzene	108-67-8	39	2	5
10945	Xylene (Total)	1330-20-7	200	4	5
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	0.4 J	0.1	1
14249	Naphthalene	91-20-3	92	0.1	1
14249	Phenanthrene	85-01-8	0.2 J	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and no target analytes were detected, the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	Z193081AA	11/04/2019 11:42	Anita M Dale	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z193081AA	11/04/2019 11:41	Anita M Dale	5
14249	PAHs 8270C MINI	SW-846 8270C	1	19303WAC026	11/08/2019 15:39	William H Saadeh	1
07807	BNA Water Extraction	SW-846 3510C	1	19303WAC026	10/30/2019 17:53	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193030015A	10/31/2019 13:57	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193030015A	10/30/2019 23:25	Bradley W VanLeuven	1

Sample Description: **N-157_20191023 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/25/2019 16:48
Collection Date/Time: 10/23/2019 12:00

Evergreen c/o Stantec
ELLE Sample #: GW 1185668
ELLE Group #: 2071371
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	193031404703A	11/01/2019 12:39	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193031404703	10/31/2019 13:45	JoElla L Rice	1

Sample Description: **N-9_20191023 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/25/2019 16:48
Collection Date/Time: 10/23/2019 13:55

Evergreen c/o Stantec
ELLE Sample #: GW 1185669
ELLE Group #: 2071371
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.3 J	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
	The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. No further action was taken.				
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	Z193081AA	11/04/2019 12:06	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z193081AA	11/04/2019 12:05	Anita M Dale	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19303WAC026	11/08/2019 16:07	William H Saadeh	1
07807	BNA Water Extraction	SW-846 3510C	1	19303WAC026	10/30/2019 17:53	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193030015A	10/31/2019 14:13	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193030015A	10/30/2019 23:25	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	193031404702A	11/06/2019 10:00	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193031404702	10/31/2019 13:45	JoElla L Rice	1

Sample Description: **S-72D_20191024 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/25/2019 16:48
Collection Date/Time: 10/24/2019 12:25

Evergreen c/o Stantec
ELLE Sample #: GW 1185670
ELLE Group #: 2071371
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	16 J	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	1	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z193081AA	11/04/2019 12:30	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z193081AA	11/04/2019 12:29	Anita M Dale	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19303WAC026	11/08/2019 16:36	William H Saadeh	1
07807	BNA Water Extraction	SW-846 3510C	1	19303WAC026	10/30/2019 17:53	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193030015A	10/31/2019 14:29	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193030015A	10/30/2019 23:25	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	193031404703A	11/01/2019 12:29	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193031404703	10/31/2019 13:45	JoElla L Rice	1

Sample Description: **S-302D_20191024 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/25/2019 16:48
Collection Date/Time: 10/24/2019 13:40

Evergreen c/o Stantec
ELLE Sample #: GW 1185671
ELLE Group #: 2071371
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	540	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.6 J	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	0.7	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z193081AA	11/04/2019 12:55	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z193081AA	11/04/2019 12:54	Anita M Dale	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19303WAC026	11/08/2019 17:05	William H Saadeh	1
07807	BNA Water Extraction	SW-846 3510C	1	19303WAC026	10/30/2019 17:53	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193030016A	10/31/2019 14:44	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193030016A	10/30/2019 23:25	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	193031404702A	11/06/2019 09:49	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193031404702	10/31/2019 13:45	JoElla L Rice	1

Sample Description: **S-42I_20191025 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/25/2019 16:48
Collection Date/Time: 10/25/2019 11:40

Evergreen c/o Stantec
ELLE Sample #: GW 1185672
ELLE Group #: 2071371
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	44	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	0.4 J	0.2	1
10945	Isopropylbenzene	98-82-8	6	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	4	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.21 J	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193102AA	11/06/2019 15:11	Stephen C Nolte	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193102AA	11/06/2019 15:10	Stephen C Nolte	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19305WAD026	11/08/2019 13:14	Anthony P Bauer	1
07807	BNA Water Extraction	SW-846 3510C	1	19305WAD026	11/01/2019 16:35	Osvaldo R Sanchez	1
10398	EDB in Wastewater	SW-846 8011	1	193030016A	10/31/2019 15:00	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193030016A	10/30/2019 23:25	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	193031404702A	11/06/2019 09:53	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193031404702	10/31/2019 13:45	JoElla L Rice	1

Sample Description: **S-388D_20191025 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/25/2019 16:48
Collection Date/Time: 10/25/2019 12:45

Evergreen c/o Stantec
ELLE Sample #: GW 1185673
ELLE Group #: 2071371
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	960	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	6	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193102AA	11/06/2019 15:33	Stephen C Nolte	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193102AA	11/06/2019 15:32	Stephen C Nolte	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19305WAD026	11/08/2019 13:43	Anthony P Bauer	1
07807	BNA Water Extraction	SW-846 3510C	1	19305WAD026	11/01/2019 16:35	Osvaldo R Sanchez	1
10398	EDB in Wastewater	SW-846 8011	1	193030016A	10/31/2019 15:16	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193030016A	10/30/2019 23:25	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	193031404702A	11/06/2019 10:12	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193031404702	10/31/2019 13:45	JoElla L Rice	1

Sample Description: **N-152_20191023 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/25/2019 16:48
Collection Date/Time: 10/23/2019 11:00

Evergreen c/o Stantec
ELLE Sample #: GW 1185674
ELLE Group #: 2071371
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.17 J	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	Z193091AA	11/05/2019 16:44	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z193091AA	11/05/2019 16:43	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19303WAC026	11/08/2019 17:34	William H Saadeh	1
07807	BNA Water Extraction	SW-846 3510C	1	19303WAC026	10/30/2019 17:53	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193030016A	10/31/2019 15:32	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193030016A	10/30/2019 23:25	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	193031404703A	11/01/2019 12:20	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193031404703	10/31/2019 13:45	JoElla L Rice	1

Sample Description: **N-85_20191023 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/25/2019 16:48
Collection Date/Time: 10/23/2019 12:25

Evergreen c/o Stantec
ELLE Sample #: GW 1185675
ELLE Group #: 2071371
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	0.3 J	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	14	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.4 J	0.2	1
10945	Toluene	108-88-3	0.3 J	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	0.4 J	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	0.6	0.1	1
14249	Pyrene	129-00-0	0.6	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.76	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	Z193091AA	11/05/2019 17:08	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z193091AA	11/05/2019 17:07	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19303WAC026	11/08/2019 18:03	William H Saadeh	1
07807	BNA Water Extraction	SW-846 3510C	1	19303WAC026	10/30/2019 17:53	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193030016A	10/31/2019 15:48	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193030016A	10/30/2019 23:25	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	193031404702A	11/06/2019 09:57	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193031404702	10/31/2019 13:45	JoElla L Rice	1

Sample Description: **N-98_20191023 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/25/2019 16:48
Collection Date/Time: 10/23/2019 14:10

Evergreen c/o Stantec
ELLE Sample #: GW 1185676
ELLE Group #: 2071371
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0093	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	Z193091AA	11/05/2019 19:10	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z193091AA	11/05/2019 19:09	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19303WAC026	11/08/2019 18:31	William H Saadeh	1
07807	BNA Water Extraction	SW-846 3510C	1	19303WAC026	10/30/2019 17:53	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193030016A	10/31/2019 16:04	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193030016A	10/30/2019 23:25	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	193031404703A	11/01/2019 12:31	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193031404703	10/31/2019 13:45	JoElla L Rice	1

Sample Description: S-374_20191023 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 10/25/2019 16:48
Collection Date/Time: 10/23/2019 11:09

Evergreen c/o Stantec
ELLE Sample #: GW 1185677
ELLE Group #: 2071371
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	120	1	5
10945	t-Butyl alcohol	75-65-0	N.D.	50	5
10945	1,2-Dichloroethane	107-06-2	N.D.	10	5
10945	Ethylbenzene	100-41-4	1,100	10	50
10945	Isopropylbenzene	98-82-8	120	2	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	5
10945	Toluene	108-88-3	290	1	5
10945	1,2,4-Trimethylbenzene	95-63-6	950	2	5
10945	1,3,5-Trimethylbenzene	108-67-8	220	2	5
10945	Xylene (Total)	1330-20-7	2,100	4	5
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	0.3 J	0.1	1
14249	Naphthalene	91-20-3	200	0.5	5
14249	Phenanthrene	85-01-8	0.1 J	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	0.025 JD1	0.0093	1
	The recovery for the sample surrogate(s) is outside the QC acceptance limits on the D2 column as noted on the QC Summary. Since the recovery is high and no target analytes were detected, the data is reported.				
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.36 J	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/TMBs	SW-846 8260B	1	Z193091AA	11/05/2019 19:34	Alexander D Sechrist	5
10945	BTEX/MTBE/Cumene/EDC/TBA/TMBs	SW-846 8260B	1	Z193101AA	11/06/2019 13:02	Anita M Dale	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z193091AA	11/05/2019 19:33	Alexander D Sechrist	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Z193101AA	11/06/2019 13:01	Anita M Dale	50
14249	PAHs 8270C MINI	SW-846 8270C	1	19303WAC026	11/08/2019 19:00	William H Saadeh	1

Sample Description: **S-374_20191023 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/25/2019 16:48
Collection Date/Time: 10/23/2019 11:09

Evergreen c/o Stantec
ELLE Sample #: GW 1185677
ELLE Group #: 2071371
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14249	PAHs 8270C MINI	SW-846 8270C	1	19303WAC026	11/11/2019 13:27	William H Saadeh	5
07807	BNA Water Extraction	SW-846 3510C	1	19303WAC026	10/30/2019 17:53	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193030016A	10/31/2019 16:52	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193030016A	10/30/2019 23:25	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	193031404702A	11/06/2019 10:14	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193031404702	10/31/2019 13:45	JoElla L Rice	1

Sample Description: **S-378_20191023 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/25/2019 16:48
Collection Date/Time: 10/23/2019 12:12

Evergreen c/o Stantec
ELLE Sample #: GW 1185678
ELLE Group #: 2071371
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	2,600	20	100
10945	t-Butyl alcohol	75-65-0	130 J	100	10
10945	1,2-Dichloroethane	107-06-2	N.D.	20	10
10945	Ethylbenzene	100-41-4	1,400	2	10
10945	Isopropylbenzene	98-82-8	50 J	3	10
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	2	10
10945	Toluene	108-88-3	510	2	10
10945	1,2,4-Trimethylbenzene	95-63-6	940	3	10
10945	1,3,5-Trimethylbenzene	108-67-8	330	3	10
10945	Xylene (Total)	1330-20-7	1,700	8	10
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	330	1	10
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z193091AA	11/05/2019 19:59	Alexander D Sechrist	10
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z193101AA	11/06/2019 16:41	Anita M Dale	100
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z193091AA	11/05/2019 19:58	Alexander D Sechrist	10
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Z193101AA	11/06/2019 16:40	Anita M Dale	100
14249	PAHs 8270C MINI	SW-846 8270C	1	19303WAC026	11/09/2019 16:01	Holly B Ziegler	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19303WAC026	11/09/2019 16:30	Holly B Ziegler	10
07807	BNA Water Extraction	SW-846 3510C	1	19303WAC026	10/30/2019 17:53	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193030016A	10/31/2019 17:08	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193030016A	10/30/2019 23:25	Bradley W VanLeuven	1

Sample Description: **S-378_20191023 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/25/2019 16:48
Collection Date/Time: 10/23/2019 12:12

Evergreen c/o Stantec
ELLE Sample #: GW 1185678
ELLE Group #: 2071371
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	193031404703A	11/01/2019 12:28	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193031404703	10/31/2019 13:45	JoElla L Rice	1

Sample Description: **S-375_20191023 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/25/2019 16:48
Collection Date/Time: 10/23/2019 10:04

Evergreen c/o Stantec
ELLE Sample #: GW 1185679
ELLE Group #: 2071371
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	1,100	10	50
10945	t-Butyl alcohol	75-65-0	160	50	5
10945	1,2-Dichloroethane	107-06-2	N.D.	10	5
10945	Ethylbenzene	100-41-4	960	1	5
10945	Isopropylbenzene	98-82-8	43	2	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	5
10945	Toluene	108-88-3	1,100	10	50
10945	1,2,4-Trimethylbenzene	95-63-6	720	2	5
10945	1,3,5-Trimethylbenzene	108-67-8	240	2	5
10945	Xylene (Total)	1330-20-7	4,900	40	50
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	0.2 J	0.1	1
14249	Naphthalene	91-20-3	230	1	10
14249	Phenanthrene	85-01-8	0.2 J	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
	The recovery for the sample surrogate(s) is outside the QC acceptance limits on the D2 column as noted on the QC Summary. Since the recovery is high and no target analytes were detected, the data is reported.				
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/TMBs	SW-846 8260B	1	Z193091AA	11/05/2019 20:23	Alexander D Sechrist	5
10945	BTEX/MTBE/Cumene/EDC/TBA/TMBs	SW-846 8260B	1	Z193101AA	11/06/2019 13:51	Anita M Dale	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z193091AA	11/05/2019 20:22	Alexander D Sechrist	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Z193101AA	11/06/2019 13:50	Anita M Dale	50
14249	PAHs 8270C MINI	SW-846 8270C	1	19303WAC026	11/09/2019 16:59	Holly B Ziegler	1

Sample Description: **S-375_20191023 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/25/2019 16:48
Collection Date/Time: 10/23/2019 10:04

Evergreen c/o Stantec
ELLE Sample #: GW 1185679
ELLE Group #: 2071371
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14249	PAHs 8270C MINI	SW-846 8270C	1	19303WAC026	11/09/2019 17:28	Holly B Ziegler	10
07807	BNA Water Extraction	SW-846 3510C	1	19303WAC026	10/30/2019 17:53	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193030016A	10/31/2019 17:24	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193030016A	10/30/2019 23:25	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	193031404703A	11/01/2019 12:35	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193031404703	10/31/2019 13:45	JoElla L Rice	1

Sample Description: **S-369_20191023 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/25/2019 16:48
Collection Date/Time: 10/23/2019 14:10

Evergreen c/o Stantec
ELLE Sample #: GW 1185680
ELLE Group #: 2071371
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	1,100	10	50
10945	t-Butyl alcohol	75-65-0	1,200	50	5
10945	1,2-Dichloroethane	107-06-2	N.D.	10	5
10945	Ethylbenzene	100-41-4	10	1	5
10945	Isopropylbenzene	98-82-8	61	2	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	22	1	5
10945	Toluene	108-88-3	47	1	5
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	2	5
10945	1,3,5-Trimethylbenzene	108-67-8	3 J	2	5
10945	Xylene (Total)	1330-20-7	31	4	5
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	2	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	0.9	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.64	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z193091AA	11/05/2019 20:47	Alexander D Sechrist	5
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z193101AA	11/06/2019 14:15	Anita M Dale	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z193091AA	11/05/2019 20:46	Alexander D Sechrist	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Z193101AA	11/06/2019 14:14	Anita M Dale	50
14249	PAHs 8270C MINI	SW-846 8270C	1	19303WAC026	11/09/2019 17:57	Holly B Ziegler	1
07807	BNA Water Extraction	SW-846 3510C	1	19303WAC026	10/30/2019 17:53	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193030016A	10/31/2019 17:39	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193030016A	10/30/2019 23:25	Bradley W VanLeuven	1

Sample Description: **S-369_20191023 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/25/2019 16:48
Collection Date/Time: 10/23/2019 14:10

Evergreen c/o Stantec
ELLE Sample #: GW 1185680
ELLE Group #: 2071371
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	193031404703A	11/01/2019 12:22	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193031404703	10/31/2019 13:45	JoElla L Rice	1

Sample Description: **S-223_20191023 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/25/2019 16:48
Collection Date/Time: 10/23/2019 13:28

Evergreen c/o Stantec
ELLE Sample #: GW 1185681
ELLE Group #: 2071371
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	2,800	20	100
10945	t-Butyl alcohol	75-65-0	N.D.	100	10
10945	1,2-Dichloroethane	107-06-2	N.D.	20	10
10945	Ethylbenzene	100-41-4	710	2	10
10945	Isopropylbenzene	98-82-8	26 J	3	10
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	2	10
10945	Toluene	108-88-3	120	2	10
10945	1,2,4-Trimethylbenzene	95-63-6	890	3	10
10945	1,3,5-Trimethylbenzene	108-67-8	290	3	10
10945	Xylene (Total)	1330-20-7	1,800	8	10
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	0.2 J	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	1	0.1	1
14249	Naphthalene	91-20-3	210	1	10
14249	Phenanthrene	85-01-8	1	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.10 J	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z193091AA	11/05/2019 21:11	Alexander D Sechrist	10
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z193101AA	11/06/2019 14:39	Anita M Dale	100
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z193091AA	11/05/2019 21:10	Alexander D Sechrist	10
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Z193101AA	11/06/2019 14:38	Anita M Dale	100
14249	PAHs 8270C MINI	SW-846 8270C	1	19303WAC026	11/09/2019 18:26	Holly B Ziegler	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19303WAC026	11/09/2019 18:55	Holly B Ziegler	10
07807	BNA Water Extraction	SW-846 3510C	1	19303WAC026	10/30/2019 17:53	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193030016A	10/31/2019 17:55	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193030016A	10/30/2019 23:25	Bradley W VanLeuven	1

Sample Description: **S-223_20191023 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/25/2019 16:48
Collection Date/Time: 10/23/2019 13:28

Evergreen c/o Stantec
ELLE Sample #: GW 1185681
ELLE Group #: 2071371
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	193031404702A	11/06/2019 09:51	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193031404702	10/31/2019 13:45	JoElla L Rice	1

Sample Description: DUP-1 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 10/25/2019 16:48
Collection Date/Time: 10/23/2019

Evergreen c/o Stantec
ELLE Sample #: GW 1185682
ELLE Group #: 2071371
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	1,100	10	50
10945	t-Butyl alcohol	75-65-0	150	50	5
10945	1,2-Dichloroethane	107-06-2	N.D.	10	5
10945	Ethylbenzene	100-41-4	1,100	10	50
10945	Isopropylbenzene	98-82-8	47	2	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	5
10945	Toluene	108-88-3	1,200	10	50
10945	1,2,4-Trimethylbenzene	95-63-6	790	2	5
10945	1,3,5-Trimethylbenzene	108-67-8	260	2	5
10945	Xylene (Total)	1330-20-7	5,500	40	50
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	0.2 J	0.1	1
14249	Naphthalene	91-20-3	200	1	10
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits on the D2 column as noted on the QC Summary. Since the recovery is high and no target analytes were detected, the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/TMBs	SW-846 8260B	1	Z193091AA	11/05/2019 21:36	Alexander D Sechrist	5
10945	BTEX/MTBE/Cumene/EDC/TBA/TMBs	SW-846 8260B	1	Z193101AA	11/06/2019 15:04	Anita M Dale	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z193091AA	11/05/2019 21:35	Alexander D Sechrist	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Z193101AA	11/06/2019 15:03	Anita M Dale	50
14249	PAHs 8270C MINI	SW-846 8270C	1	19303WAC026	11/09/2019 19:24	Holly B Ziegler	1

Sample Description: **DUP-1 Grab Groundwater**
2019 Q4 GWS PHL

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/25/2019 16:48
Collection Date/Time: 10/23/2019

Evergreen c/o Stantec
ELLE Sample #: GW 1185682
ELLE Group #: 2071371
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14249	PAHs 8270C MINI	SW-846 8270C	1	19303WAC026	11/10/2019 00:36	Holly B Ziegler	10
07807	BNA Water Extraction	SW-846 3510C	1	19303WAC026	10/30/2019 17:53	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193030016A	10/31/2019 18:11	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193030016A	10/30/2019 23:25	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	193031404702A	11/06/2019 09:58	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193031404702	10/31/2019 13:45	JoElla L Rice	1

Sample Description: **EB_20191023 Grab Water**
2019 Q4 GWS PHL

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/25/2019 16:48
Collection Date/Time: 10/23/2019 08:45

Evergreen c/o Stantec
ELLE Sample #: GW 1185683
ELLE Group #: 2071371
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z193081AA	11/04/2019 10:53	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z193081AA	11/04/2019 10:52	Anita M Dale	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19303WAC026	11/10/2019 01:05	Holly B Ziegler	1
07807	BNA Water Extraction	SW-846 3510C	1	19303WAC026	10/30/2019 17:53	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193030016A	10/31/2019 18:27	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193030016A	10/30/2019 23:25	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	193031404702A	11/06/2019 10:08	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193031404702	10/31/2019 13:45	JoElla L Rice	1

Sample Description: **S-150SRTF_20191023 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/25/2019 16:48
Collection Date/Time: 10/23/2019 10:20

Evergreen c/o Stantec
ELLE Sample #: GW 1185684
ELLE Group #: 2071371
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	0.3 J	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	84	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z193101AA	11/06/2019 08:59	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z193101AA	11/06/2019 08:58	Anita M Dale	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19303WAC026	11/10/2019 01:34	Holly B Ziegler	1
07807	BNA Water Extraction	SW-846 3510C	1	19303WAC026	10/30/2019 17:53	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193030016A	10/31/2019 18:43	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193030016A	10/30/2019 23:25	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	193031404702A	11/06/2019 10:10	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193031404702	10/31/2019 13:45	JoElla L Rice	1

Sample Description: **S-146SRTF_20191023 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/25/2019 16:48
Collection Date/Time: 10/23/2019 11:15

Evergreen c/o Stantec
ELLE Sample #: GW 1185685
ELLE Group #: 2071371
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	4	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	4.0	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z193091AA	11/05/2019 22:24	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z193091AA	11/05/2019 22:23	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19303WAC026	11/10/2019 02:03	Holly B Ziegler	1
07807	BNA Water Extraction	SW-846 3510C	1	19303WAC026	10/30/2019 17:53	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193030016A	10/31/2019 18:59	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193030016A	10/30/2019 23:25	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	193031404702A	11/05/2019 17:26	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193031404702	10/31/2019 13:45	JoElla L Rice	1

Sample Description: **S-149SRTF_20191023 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/25/2019 16:48
Collection Date/Time: 10/23/2019 11:50

Evergreen c/o Stantec
ELLE Sample #: GW 1185686
ELLE Group #: 2071371
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	4	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	3.4	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	Z193091AA	11/05/2019 22:49	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z193091AA	11/05/2019 22:48	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19303WAC026	11/10/2019 02:31	Holly B Ziegler	1
07807	BNA Water Extraction	SW-846 3510C	1	19303WAC026	10/30/2019 17:53	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193030016A	10/31/2019 19:15	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193030016A	10/30/2019 23:25	Bradley W VanLeuven	1
06035	Lead	SW-846 6020	1	193031404702A	11/05/2019 17:05	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193031404702	10/31/2019 13:45	JoElla L Rice	1

Sample Description: **S-147SRTF_20191023 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/25/2019 16:48
Collection Date/Time: 10/23/2019 12:35

Evergreen c/o Stantec
ELLE Sample #: GW 1185687
ELLE Group #: 2071371
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	3	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
	The response the surrogate in the continuing calibration verification standard is outside the QC acceptance limits on the D1 column.				
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.29 J	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/TMBs	SW-846 8260B	1	Z193091AA	11/05/2019 23:13	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z193091AA	11/05/2019 23:12	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19303WAC026	11/10/2019 03:00	Holly B Ziegler	1
07807	BNA Water Extraction	SW-846 3510C	1	19303WAC026	10/30/2019 17:53	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193030016A	10/31/2019 20:03	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193030016A	10/30/2019 23:25	Bradley W VanLeuven	1

Sample Description: **S-147SRTF_20191023 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/25/2019 16:48
Collection Date/Time: 10/23/2019 12:35

Evergreen c/o Stantec
ELLE Sample #: GW 1185687
ELLE Group #: 2071371
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	193031404702A	11/06/2019 09:55	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193031404702	10/31/2019 13:45	JoElla L Rice	1

Sample Description: **S-148SRTF_20191023 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/25/2019 16:48
Collection Date/Time: 10/23/2019 13:30

Evergreen c/o Stantec
ELLE Sample #: GW 1185688
ELLE Group #: 2071371
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	4	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
	The response the surrogate in the continuing calibration verification standard is outside the QC acceptance limits on the D1 column.				
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.15 J	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/TMBs	SW-846 8260B	1	Z193091AA	11/05/2019 23:37	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z193091AA	11/05/2019 23:36	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19303WAC026	11/10/2019 03:29	Holly B Ziegler	1
07807	BNA Water Extraction	SW-846 3510C	1	19303WAC026	10/30/2019 17:53	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193030016A	10/31/2019 20:19	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193030016A	10/30/2019 23:25	Bradley W VanLeuven	1

Sample Description: **S-148SRTF_20191023 Grab Groundwater**
2019 Q4 GWS PHL

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/25/2019 16:48
Collection Date/Time: 10/23/2019 13:30

Evergreen c/o Stantec
ELLE Sample #: GW 1185688
ELLE Group #: 2071371
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	193031404702A	11/06/2019 09:22	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193031404702	10/31/2019 13:45	JoElla L Rice	1

Quality Control Summary

Client Name: Evergreen c/o Stantec
Group Number: 2071371
Reported: 11/12/2019 14:01

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	ug/l	ug/l
Batch number: D193091AA	Sample number(s): 1185665	
Benzene	N.D.	0.2
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.8
Batch number: F193102AA	Sample number(s): 1185672-1185673	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.8
Batch number: Z193081AA	Sample number(s): 1185667-1185671,1185683	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.8
Batch number: Z193082AA	Sample number(s): 1185666	
Benzene	N.D.	0.2
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 11/12/2019 14:01

Group Number: 2071371

Method Blank (continued)

Analysis Name	Result	MDL
	ug/l	ug/l
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.8
Batch number: Z193091AA	Sample number(s): 1185674-1185682,1185685-1185688	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.8
Batch number: Z193101AA	Sample number(s): 1185677-1185682,1185684	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.8
Batch number: 19301WAJ026	Sample number(s): 1185665	
Anthracene	N.D.	0.1
Benzo(a)anthracene	N.D.	0.1
Benzo(a)pyrene	N.D.	0.1
Benzo(b)fluoranthene	N.D.	0.1
Benzo(g,h,i)perylene	N.D.	0.1
Chrysene	N.D.	0.1
Fluorene	N.D.	0.1
Naphthalene	N.D.	0.1
Phenanthrene	N.D.	0.1
Pyrene	N.D.	0.1
Batch number: 19303WAC026	Sample number(s): 1185667-1185671,1185674-1185688	
Anthracene	N.D.	0.1
Benzo(a)anthracene	N.D.	0.1
Benzo(a)pyrene	N.D.	0.1
Benzo(b)fluoranthene	N.D.	0.1
Benzo(g,h,i)perylene	N.D.	0.1

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 11/12/2019 14:01

Group Number: 2071371

Method Blank (continued)

Analysis Name	Result	MDL
	ug/l	ug/l
Chrysene	N.D.	0.1
Fluorene	N.D.	0.1
Naphthalene	N.D.	0.1
Phenanthrene	N.D.	0.1
Pyrene	N.D.	0.1
Batch number: 19305WAD026	Sample number(s): 1185672-1185673	
Anthracene	N.D.	0.1
Benzo(a)anthracene	N.D.	0.1
Benzo(a)pyrene	N.D.	0.1
Benzo(b)fluoranthene	N.D.	0.1
Benzo(g,h,i)perylene	N.D.	0.1
Chrysene	N.D.	0.1
Fluorene	N.D.	0.1
Naphthalene	N.D.	0.1
Phenanthrene	N.D.	0.1
Pyrene	N.D.	0.1
Batch number: 193030015A	Sample number(s): 1185665-1185670	
Ethylene dibromide	N.D.	0.010
Batch number: 193030016A	Sample number(s): 1185671-1185688	
Ethylene dibromide	N.D.	0.010
Batch number: 193031404702A	Sample number(s): 1185667,1185669,1185671-1185673,1185675,1185677,1185681-1185688	
Lead	N.D.	0.071
Batch number: 193031404703A	Sample number(s): 1185665,1185668,1185670,1185674,1185676,1185678-1185680	
Lead	N.D.	0.071

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: D193091AA	Sample number(s): 1185665								
Benzene	20	20.41			102		80-120		
1,2-Dichloroethane	20	18.96			95		73-124		
Ethylbenzene	20	19.45			97		80-120		
Isopropylbenzene	20	18.88			94		80-120		
Methyl Tertiary Butyl Ether	20	19.14			96		69-122		
Toluene	20	19.49			97		80-120		
1,2,4-Trimethylbenzene	20	18.57			93		75-120		
1,3,5-Trimethylbenzene	20	18.4			92		75-120		

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 11/12/2019 14:01

Group Number: 2071371

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Xylene (Total)	60	58.8			98		80-120		
Batch number: F193102AA	Sample number(s): 1185672-1185673								
Benzene	20	18.57	20	18.59	93	93	80-120	0	30
t-Butyl alcohol	200	182.04	200	178.78	91	89	60-130	2	30
1,2-Dichloroethane	20	18.79	20	18.84	94	94	73-124	0	30
Ethylbenzene	20	17.88	20	18	89	90	80-120	1	30
Isopropylbenzene	20	18.08	20	17.92	90	90	80-120	1	30
Methyl Tertiary Butyl Ether	20	19.77	20	20	99	100	69-122	1	30
Toluene	20	18	20	18.2	90	91	80-120	1	30
1,2,4-Trimethylbenzene	20	17.83	20	17.9	89	90	75-120	0	30
1,3,5-Trimethylbenzene	20	18.02	20	18.14	90	91	75-120	1	30
Xylene (Total)	60	54.21	60	54.13	90	90	80-120	0	30
Batch number: Z193081AA	Sample number(s): 1185667-1185671,1185683								
Benzene	20	19.7	20	19.66	98	98	80-120	0	30
t-Butyl alcohol	200	213.57	200	213.73	107	107	60-130	0	30
1,2-Dichloroethane	20	20.55	20	20.59	103	103	73-124	0	30
Ethylbenzene	20	19.33	20	19.35	97	97	80-120	0	30
Isopropylbenzene	20	20.66	20	20.93	103	105	80-120	1	30
Methyl Tertiary Butyl Ether	20	18.7	20	18.55	93	93	69-122	1	30
Toluene	20	19.58	20	19.72	98	99	80-120	1	30
1,2,4-Trimethylbenzene	20	18.73	20	18.59	94	93	75-120	1	30
1,3,5-Trimethylbenzene	20	18.52	20	18.66	93	93	75-120	1	30
Xylene (Total)	60	61.57	60	62.42	103	104	80-120	1	30
Batch number: Z193082AA	Sample number(s): 1185666								
Benzene	20	19.45	20	19.37	97	97	80-120	0	30
1,2-Dichloroethane	20	20.82	20	21	104	105	73-124	1	30
Ethylbenzene	20	19.18	20	19.15	96	96	80-120	0	30
Isopropylbenzene	20	19.93	20	20.13	100	101	80-120	1	30
Methyl Tertiary Butyl Ether	20	18.52	20	18.78	93	94	69-122	1	30
Toluene	20	19.35	20	19.55	97	98	80-120	1	30
1,2,4-Trimethylbenzene	20	18.24	20	18.51	91	93	75-120	1	30
1,3,5-Trimethylbenzene	20	18.38	20	18.26	92	91	75-120	1	30
Xylene (Total)	60	60.82	60	60.82	101	101	80-120	0	30
Batch number: Z193091AA	Sample number(s): 1185674-1185682,1185685-1185688								
Benzene	20	19.46			97		80-120		
t-Butyl alcohol	200	203.23			102		60-130		
1,2-Dichloroethane	20	17.68			88		73-124		
Ethylbenzene	20	18.68			93		80-120		
Isopropylbenzene	20	19.14			96		80-120		
Methyl Tertiary Butyl Ether	20	17.66			88		69-122		
Toluene	20	19.27			96		80-120		

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P####### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 11/12/2019 14:01

Group Number: 2071371

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,2,4-Trimethylbenzene	20	18.58			93		75-120		
1,3,5-Trimethylbenzene	20	18.42			92		75-120		
Xylene (Total)	60	58.88			98		80-120		
Batch number: Z193101AA	Sample number(s): 1185677-1185682,1185684								
Benzene	20	21.86	20	21.37	109	107	80-120	2	30
t-Butyl alcohol	200	209.72	200	215.95	105	108	60-130	3	30
1,2-Dichloroethane	20	19.21	20	19.33	96	97	73-124	1	30
Ethylbenzene	20	20.51	20	20.06	103	100	80-120	2	30
Isopropylbenzene	20	21.24	20	20.49	106	102	80-120	4	30
Methyl Tertiary Butyl Ether	20	18.82	20	18.67	94	93	69-122	1	30
Toluene	20	21.65	20	20.73	108	104	80-120	4	30
1,2,4-Trimethylbenzene	20	20.8	20	19.95	104	100	75-120	4	30
1,3,5-Trimethylbenzene	20	20.7	20	19.94	103	100	75-120	4	30
Xylene (Total)	60	65.64	60	63.68	109	106	80-120	3	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 19301WAJ026	Sample number(s): 1185665								
Anthracene	50	41.89	50	39.03	84	78	62-116	7	30
Benzo(a)anthracene	50	44.05	50	44.94	88	90	70-118	2	30
Benzo(a)pyrene	50	42.36	50	42.83	85	86	71-117	1	30
Benzo(b)fluoranthene	50	45.12	50	44.44	90	89	71-115	2	30
Benzo(g,h,i)perylene	50	37.37	50	36.42	75	73	60-119	3	30
Chrysene	50	41.54	50	42.03	83	84	69-116	1	30
Fluorene	50	39.11	50	35.32	78	71	56-115	10	30
Naphthalene	50	36.43	50	32.79	73	66	45-105	11	30
Phenanthrene	50	41.86	50	39.1	84	78	65-113	7	30
Pyrene	50	39.93	50	40.67	80	81	65-115	2	30
Batch number: 19303WAC026	Sample number(s): 1185667-1185671,1185674-1185688								
Anthracene	50	42.53	50	43.4	85	87	62-116	2	30
Benzo(a)anthracene	50	45.69	50	46.07	91	92	70-118	1	30
Benzo(a)pyrene	50	43.13	50	42.91	86	86	71-117	1	30
Benzo(b)fluoranthene	50	46.95	50	45.04	94	90	71-115	4	30
Benzo(g,h,i)perylene	50	34.92	50	33.79	70	68	60-119	3	30
Chrysene	50	44	50	41.06	88	82	69-116	7	30
Fluorene	50	37.99	50	39.83	76	80	56-115	5	30
Naphthalene	50	32.44	50	34.93	65	70	45-105	7	30
Phenanthrene	50	43.42	50	42.47	87	85	65-113	2	30
Pyrene	50	41.75	50	39.79	84	80	65-115	5	30
Batch number: 19305WAD026	Sample number(s): 1185672-1185673								
Anthracene	50	41.03	50	43.75	82	88	62-116	6	30
Benzo(a)anthracene	50	44.56	50	48.22	89	96	70-118	8	30
Benzo(a)pyrene	50	41.34	50	44.88	83	90	71-117	8	30

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.
P####### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 11/12/2019 14:01

Group Number: 2071371

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Benzo(b)fluoranthene	50	44.66	50	47.85	89	96	71-115	7	30
Benzo(g,h,i)perylene	50	47.61	50	51.26	95	103	60-119	7	30
Chrysene	50	42.47	50	45.86	85	92	69-116	8	30
Fluorene	50	38.18	50	38.75	76	78	56-115	1	30
Naphthalene	50	34.36	50	35.26	69	71	45-105	3	30
Phenanthrene	50	41.28	50	44.11	83	88	65-113	7	30
Pyrene	50	41.12	50	43.26	82	87	65-115	5	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 193030015A	Sample number(s): 1185665-1185670								
Ethylene dibromide	0.128	0.174	0.128	0.172	136	135	60-140	1	20
Batch number: 193030016A	Sample number(s): 1185671-1185688								
Ethylene dibromide	0.128	0.175	0.128	0.170	137	133	60-140	3	20
	ug/l	ug/l	ug/l	ug/l					
Batch number: 193031404702A	Sample number(s): 1185667,1185669,1185671-1185673,1185675,1185677,1185681-1185688								
Lead	5.00	4.94			99		90-110		
Batch number: 193031404703A	Sample number(s): 1185665,1185668,1185670,1185674,1185676,1185678-1185680								
Lead	5.00	4.99			100		90-110		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: D193091AA	Sample number(s): 1185665 UNSPK: P186936									
Benzene	N.D.	20	24.18	20	21.35	121*	107	80-120	12	30
1,2-Dichloroethane	N.D.	20	21.77	20	19.38	109	97	73-124	12	30
Ethylbenzene	N.D.	20	22.8	20	20.42	114	102	80-120	11	30
Isopropylbenzene	N.D.	20	22.18	20	19.93	111	100	80-120	11	30
Methyl Tertiary Butyl Ether	N.D.	20	21.56	20	19.11	108	96	69-122	12	30
Toluene	N.D.	20	22.84	20	20.4	114	102	80-120	11	30
1,2,4-Trimethylbenzene	N.D.	20	21.7	20	19.1	108	96	75-120	13	30
1,3,5-Trimethylbenzene	N.D.	20	21.39	20	19.39	107	97	75-120	10	30
Xylene (Total)	N.D.	60	67.29	60	61.02	112	102	80-120	10	30
Batch number: Z193091AA	Sample number(s): 1185674-1185682,1185685-1185688 UNSPK: 1185675									
Benzene	0.251	20	20.5	20	20.55	101	102	80-120	0	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P####### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 11/12/2019 14:01

Group Number: 2071371

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
t-Butyl alcohol	N.D.	200	229.74	200	231.86	115	116	60-130	1	30
1,2-Dichloroethane	N.D.	20	18.64	20	18.41	93	92	73-124	1	30
Ethylbenzene	N.D.	20	22.65	20	22.35	113	112	80-120	1	30
Isopropylbenzene	14.36	20	37.64	20	36.72	116	112	80-120	2	30
Methyl Tertiary Butyl Ether	0.391	20	16.8	20	16.97	82	83	69-122	1	30
Toluene	0.320	20	21.72	20	21.77	107	107	80-120	0	30
1,2,4-Trimethylbenzene	N.D.	20	22.66	20	22.47	113	112	75-120	1	30
1,3,5-Trimethylbenzene	N.D.	20	23.03	20	22.61	115	113	75-120	2	30
Xylene (Total)	N.D.	60	71.68	60	69.93	119	117	80-120	2	30
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 193030015A	Sample number(s): 1185665-1185670 UNSPK: P185146									
Ethylene dibromide	N.D.	0.121	0.162	0.122	0.160	135	132	60-140	1	20
Batch number: 193030016A	Sample number(s): 1185671-1185688 UNSPK: P185159									
Ethylene dibromide	N.D.	0.122	0.152	0.121	0.157	125	129	60-140	3	20
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 193031404702A	Sample number(s): 1185667,1185669,1185671-1185673,1185675,1185677,1185681-1185688 UNSPK: 1185688									
Lead	0.150	5.00	5.22	5.00	5.27	101	102	75-125	1	20
Batch number: 193031404703A	Sample number(s): 1185665,1185668,1185670,1185674,1185676,1185678-1185680 UNSPK: P185932									
Lead	N.D.	5.00	5.13	5.00	5.16	103	103	75-125	1	20

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc ug/l	DUP Conc ug/l	DUP RPD	DUP RPD Max
Batch number: 193031404702A	Sample number(s): 1185667,1185669,1185671-1185673,1185675,1185677,1185681-1185688 BKG: 1185688			
Lead	0.150	0.163	9 (1)	20
Batch number: 193031404703A	Sample number(s): 1185665,1185668,1185670,1185674,1185676,1185678-1185680 BKG: P185932			
Lead	N.D.	N.D.	0 (1)	20

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 11/12/2019 14:01

Group Number: 2071371

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX/MTBE/Cumene/EDC/TMBs
Batch number: D193091AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1185665	98	97	99	103
Blank	99	99	100	99
LCS	100	99	99	100
MS	98	101	99	100
MSD	99	97	99	99
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: F193102AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1185672	104	97	101	98
1185673	99	96	99	101
Blank	101	94	100	95
LCS	101	100	101	96
LCSD	101	100	100	96
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: Z193081AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1185667	104	98	90	91
1185668	102	95	91	95
1185669	104	96	92	93
1185670	103	97	90	93
1185671	101	97	91	92
1185683	104	96	90	91
Blank	103	99	91	90
LCS	102	100	91	95
LCSD	101	98	90	94
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TMBs
Batch number: Z193082AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1185666	103	99	90	92
Blank	102	96	90	90
LCS	101	96	91	95
LCSD	102	100	92	95

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P####### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 11/12/2019 14:01

Group Number: 2071371

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX/MTBE/Cumene/EDC/TMBs
Batch number: Z193082AA

Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: Z193091AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1185674	100	98	96	91
1185675	99	95	95	97
1185676	97	97	95	92
1185677	96	96	97	94
1185678	97	97	97	93
1185679	97	95	96	94
1185680	98	97	97	94
1185681	98	96	97	94
1185682	95	97	96	95
1185685	98	97	96	93
1185686	96	97	96	93
1185687	97	96	96	92
1185688	98	98	96	94
Blank	99	96	95	92
LCS	99	99	96	94
MS	97	99	96	97
MSD	97	98	96	98
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: Z193101AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1185684	97	97	95	94
Blank	98	97	96	92
LCS	97	98	97	95
LCSD	97	98	96	93
Limits:	80-120	80-120	80-120	80-120

Analysis Name: PAHs 8270C MINI
Batch number: 19301WAJ026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
1185665	72	67	59
Blank	70	65	65
LCS	78	71	73
LCSD	74	66	77

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 11/12/2019 14:01

Group Number: 2071371

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PAHs 8270C MINI
Batch number: 19301WAJ026

Limits:	33-113	44-102	39-125

Analysis Name: PAHs 8270C MINI
Batch number: 19303WAC026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
1185667	64	65	40
1185668	63	59	64
1185669	63	58	38*
1185670	58	56	60
1185671	63	59	70
1185674	56	52	49
1185675	63	64	52
1185676	66	64	59
1185677	71	77	39
1185678	76	78	68
1185679	74	65	50
1185680	58	67	50
1185681	71	73	55
1185682	67	69	45
1185683	65	68	78
1185684	64	62	56
1185685	65	63	57
1185686	67	66	55
1185687	59	57	56
1185688	58	64	67
Blank	67	46	68
LCS	70	59	81
LCSD	67	58	76
Limits:	33-113	44-102	39-125

Analysis Name: PAHs 8270C MINI
Batch number: 19305WAD026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
1185672	72	67	61
1185673	71	65	58
Blank	76	70	73
LCS	74	64	77
LCSD	77	67	79
Limits:	33-113	44-102	39-125

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 11/12/2019 14:01

Group Number: 2071371

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: EDB in Wastewater
Batch number: 193030015A

	1,1,2,2-Tetrachloroethane-D1	1,1,2,2-Tetrachloroethane-D2
1185665	100	99
1185666	100	92
1185667	103	98
1185668	165*	170*
1185669	100	98
1185670	98	97
Blank	103	101
LCS	105	98
LCSD	105	101
MS	107	101
MSD	103	99
Limits:	46-136	46-136

Analysis Name: EDB in Wastewater
Batch number: 193030016A

	1,1,2,2-Tetrachloroethane-D1	1,1,2,2-Tetrachloroethane-D2
1185671	104	101
1185672	104	111
1185673	99	96
1185674	108	102
1185675	113	110
1185676	97	93
1185677	116	137*
1185678	125	134
1185679	120	152*
1185680	127	121
1185681	117	122
1185682	119	143*
1185683	102	96
1185684	95	98
1185685	93	90
1185686	96	93
1185687	92	90
1185688	99	99
Blank	101	98
LCS	107	101
LCSD	104	98
MS	91	90
MSD	104	102

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 11/12/2019 14:01

Group Number: 2071371

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: EDB in Wastewater
Batch number: 193030016A

Limits:	46-136	46-136

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Environmental Analysis Request/Chain of Custody

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Acct. # 16657 Group # 207137 Sample # 11856665-88

COC # 593690

Client Information

Client: Stantec

Acct. #: Evergreen c/o 16657 Stantec

Project Name/#: 2019 Q4 GWS PHL

PWSID #:

Project Manager: Jennifer Menges

P.O. #: 2134024 29

Sampler: Donald Stitzell

Quote #:

State where samples were collected: PA

For Compliance: Yes ☐ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ Water ☒ Potable ☐ Ground ☐ NPDES ☐ Surface ☐ Other: ____

Analysis Requested

Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	Evergreen VOC 8260 (H)	EDB 8011 (H)	Dissolved Lead (N)	PAH 8270	TBA 8260 (H)
N-109-20191022	10/22/19	1125	X		8	X	X	X	X	
Trip Blank	10/23/19	—			2	X	X			
N-30-20191023	10/23/19	1040	X		8	X	X	X	X	
N-157-20191023	10/23/19	1200	X		8	X	X	X	X	
N-9-20191023	10/23/19	1355	X		8	X	X	X	X	
S-72D-20191024	10/24/19	1225	X		8	X	X	X	X	X
S-302D-20191024	10/24/19	1340	X		8	X	X	X	X	X
S-42I-20191025	10/25/19	1140	X		8	X	X	X	X	X
S-388D-20191025	10/25/19	1245	X		8	X	X	X	X	X

For Lab Use Only

FSC: ____

SCR#: 250104

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks

* Lead field filtered
* for analysis list refer to attached Evergreen short list

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is ~~subject to~~ laboratory approval and surcharge.)

Requested TAT in business days: ____

E-mail address: Jennifer.Menges@Stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP)
Type VI (Raw Data Only)
Type III (Reduced non-CLP)
NJ DKQP
TX TRRP-13
NYSDEC Category A or B
MA MCP
CT RCP

Relinquished by	Date	Time	Received by	Date	Time
	10/25/19	1335		10/25/19	13:35
	10/25/19	1640			
				10-25-19	1650

EDD Required? (Yes) No

If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other ____

Temperature upon receipt 3.9 °C

Environmental Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories Environmental use only

Acct. # 16657 Group # 2071371 Sample # 1185665-88

COC #594047

Client Information

Client: Stantec

Acct. #: Evergreen C10 16657 Stantec

Project Name/#: 2019 Q4 GWS PHL

PWSID #:

Project Manager: Jennifer Menges

P.O. #:

Sampler: Doulton Campbell, Ian Greene

Quote #:

State where samples were collected: PA

For Compliance: Yes ☐ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ Water ☒ Potable ☐ Ground ☐ NPDES ☐ Surface ☐ Other: ____

Analysis Requested

Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	Evergreen VOC 8260	EDB 8011	Dissolved Lead	PAH 8270	TSA 8260
N-152_20191023	10/23	1100	X		6	X	X	X	X	
N-85_20191023	10/23	1225	X		8	X	X	X	X	
N-98_20191023	10/23	1410	X		8	X	X	X	X	
S-374_20191023	10/23/19	1109	X		8	X	X	X	X	X
S-378_20191023	10/23/19	1212	X		8	X	X	X	X	X
S-375_20191023	10/23/19	1004	X		8	X	X	X	X	X
S-369_20191023	10/23/19	1410	X		8	X	X	X	X	X
S-223_20191023	10/23/19	1328	X		8	X	X	X	X	X
DUP-1	10/23/19	—	X		8	X	X	X	X	X

For Lab Use Only

FSC:

SCR#:

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks

* lead field filters
0 refer to analyte list

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: ____

E-mail address: Jennifer.Menges@Stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP)
Type VI (Raw Data Only)
Type III (Reduced non-CLP)
NJ DKQP
TX TRRP-13
NYSDEC Category A or B
MA MCP
CT RCP

Relinquished by	Date	Time	Received by	Date	Time
	10/25	1335		10/25/19	1343
	10/25/19	1640		Date	Time
	Date	Time		Date	Time
	Date	Time		Date	Time
	Date	Time		10/25/19	1652

EDD Required? Yes No

If yes, format: ____

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other ____

Temperature upon receipt 0.6 °C

Environmental Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories Environmental use only

Acct. # 16657 Group # 2071371 Sample # 1185666-88

COC # 594046

Client Information

Client: Stantec	Acct. #: 16657
Project Name/#: 2019 Q4 PHL GWS	PWSID #:
Project Manager: Jennifer Menges	P.O. #: 213402429
Sampler: Dane Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ | Water ☒ Potable ☐ Ground ☐ NPDES ☐ Surface ☐ | Other: equipment blank

Analysis Requested

Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	Evergreen VOC 8260	EDB Soil	Dissolved Lead (Field Filtered)	TPH 8270	TBA 8260
EB-20191023	10/23/19	0845	X		8	X	X	X	X	X
S-150SRTF-20191023		1020	X		8	X	X	X	X	X
S-146SRTF-20191023		1115	X		8	X	X	X	X	X
S-149SRTF-20191023		1150	X		8	X	X	X	X	X
S-147SRTF-20191023		1235	X		8	X	X	X	X	X
S-148SRTF-20191023		1330	X		8	X	X	X	X	X

Preservation Codes: H=HCl, T=Thiosulfate, N=HNO_3, B=NaOH, S=H_2SO_4, P=H_3PO_4, F=Field Filtered, O=Other

For Lab Use Only: FSC: _____ SCR#: _____

Remarks

* lead field filtered
# for list of analytes refer to attached Evergreen Short List

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: Jennifer.Menges@stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)

Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13

NYSDEC Category A or B | MA MCP | CT RCP

Relinquished by	Date	Time	Received by	Date	Time
	10/25/19	1335		10/25/19	13:30
	10/26/19	1611			

EDD Required? Yes No

If yes, format: EQUIS

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____

Temperature upon receipt 1.0 °C

G#207137

Table 1
Evergreen Petroleum Short List of Constituents of Concern

VOCs by EPA Method 8260	CAS No.
Benzene	71-43-2
Cumene	98-82-8
Dichloroethane, 1,2-	107-06-2
Ethylbenzene	100-41-4
Ethylene Dibromide*	106-93-4
Methyl tert butyl ether	1634-04-4
Toluene	108-88-3
Trimethylbenzene, 1,2,4-	95-63-6
Trimethylbenzene, 1,3,5-	108-67-8
Xylenes	1330-20-7

SVOCs by EPA Method 8270	CAS No.
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Chrysene	218-01-9
Fluorene	86-73-7
Naphthalene**	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Metals by Method 6010/6020	CAS No.
Lead***	7439-92-1

*Ethylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

**Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

***Metals analysis should be total in soil and dissolved in groundwater.

This list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline and No. 1, 2, 4, 5, 6 Fuel Oils).

Stantec

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Sample Administration Receipt Documentation Log

Doc Log ID: 264245

Group Number(s): 2071371

Client: Stantec

Delivery and Receipt Information

Delivery Method:	ELLE Courier	Arrival Date:	10/25/2019
Number of Packages:	1	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	No	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Shalynn Ponzo

Samples Chilled Details

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Matrix	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	Water	DT42-03	1.0	DT	Wet	Y	Loose	N

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Sample Administration Receipt Documentation Log

Doc Log ID: 264246

Group Number(s): 2071371

Client: Stantec

Delivery and Receipt Information

Delivery Method:	ELLE Courier	Arrival Date:	10/25/2019
Number of Packages:	1	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	No	Sample IDs on COC match Containers:	No
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	Total Trip Blank Qty:	2
Paperwork Enclosed:	Yes	Trip Blank Type:	HCl
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Shalynn Ponzo

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Matrix	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	Water	DT42-03	3.9	DT	Wet	Y	Loose	N

Sample ID Discrepancy Details

Sample ID on COC	Sample ID on Label	Comments
S388D_20191025	S338D_20191025	

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Sample Administration Receipt Documentation Log

Doc Log ID: 264247

Group Number(s): 2071371

Client: Stantec

Delivery and Receipt Information

Delivery Method:	ELLE Courier	Arrival Date:	10/25/2019
Number of Packages:	1	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	No	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Shalynn Ponzo

Samples Chilled Details

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Matrix	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	Water	DT42-03	0.6	DT	Wet	Y	Loose	N

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report
B	Detection in the Method Blank
Q0	LCS/LCSD Low
Q1	LCS/LCSD High
Q2	MS/MSD Low
Q3	MS/MSD High
Q7	LCS/LCSD RPD
Q8	DUP RPD
Q9	MS/MSD RPD

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

Report Date: January 02, 2020 11:59

Project: 2019 Q4 GWS PHL

Account #: 16657
Group Number: 2072152
PO Number: 213402429
State of Sample Origin: PA

Electronic Copy To	Evergreen c/o Stantec	Attn: Jennifer Menges
Electronic Copy To	Evergreen c/o Stantec	Attn: Andrew Bradley

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

A previous version of this report was generated on 11/15/2019 17:51.

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
N-2_20191025 Grab Groundwater	10/25/2019 11:45	1189887
N-3_20191025 Grab Groundwater	10/25/2019 13:30	1189888
N-156_20191028 Grab Groundwater	10/28/2019 13:35	1189889
PGW-MW-6_20191029 Grab Groundwater	10/29/2019 11:10	1189890
PGW-MW-21_20191029 Grab Groundwater	10/29/2019 12:55	1189891
RW-701_20191028 Grab Groundwater	10/28/2019 13:26	1189892
RW-708_20191028 Grab Groundwater	10/28/2019 12:40	1189893
RW-715_20191028 Grab Groundwater	10/28/2019 10:05	1189894
S-38_20191028 Grab Groundwater	10/28/2019 11:23	1189895
RW-703_20191029 Grab Groundwater	10/29/2019 10:01	1189896
S-13_20191028 Grab Groundwater	10/28/2019 11:20	1189897
S-284D_20191028 Grab Groundwater	10/28/2019 13:20	1189898
S-411_20191029 Grab Groundwater	10/29/2019 12:40	1189899
S-280D_20191029 Grab Groundwater	10/29/2019 09:45	1189900
S-69D_20191029 Grab Groundwater	10/29/2019 11:20	1189901
S-20_20191029 Grab Groundwater	10/29/2019 14:00	1189902
S-50_20191029 Grab Groundwater	10/29/2019 11:30	1189903
S-230_20191029 Grab Groundwater	10/29/2019 13:00	1189904
S-44_20191029 Grab Groundwater	10/29/2019 13:50	1189905
S-422_20191030 Grab Groundwater	10/30/2019 10:20	1189906
N-75_20191028 Grab Groundwater	10/28/2019 10:10	1189907
S-87I_20191028 Grab Groundwater	10/28/2019 11:15	1189908
S-399_20191028 Grab Groundwater	10/28/2019 12:35	1189909
S-38D2_20191028 Grab Groundwater	10/28/2019 14:05	1189910
S-39D_20191029 Grab Groundwater	10/29/2019 10:10	1189911
S-218D_20191029 Grab Groundwater	10/29/2019 12:05	1189912
C-134D_20191029 Grab Groundwater	10/29/2019 13:45	1189913
DUP-2_20191029 Grab Groundwater	10/29/2019	1189914
Trip Blank Water	10/30/2019	1189915

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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Analysis Report

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Sample Description: N-2_20191025 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/25/2019 11:45

Evergreen c/o Stantec
ELLE Sample #: GW 1189887
ELLE Group #: 2072152
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	6	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	3 J	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	2	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	2 J	1	10
14249	Benzo(a)anthracene	56-55-3	5 J	1	10
14249	Benzo(a)pyrene	50-32-8	N.D.	1	10
14249	Benzo(b)fluoranthene	205-99-2	N.D.	1	10
14249	Benzo(g,h,i)perylene	191-24-2	5 J	1	10
14249	Chrysene	218-01-9	5 J	1	10
14249	Fluorene	86-73-7	2 J	1	10
14249	Naphthalene	91-20-3	N.D.	1	10
14249	Phenanthrene	85-01-8	4 J	1	10
14249	Pyrene	129-00-0	9	1	10
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1

The response for the surrogate,1,1,2,2-PCA in the continuing calibration verification standard is outside the QC acceptance limits on the D1 column. The data is reported.
Z = A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. Since the result is high and the target analyte(s) is not detected in the sample, the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	2.6	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F193111AA	11/07/2019 17:06	Stephen C Nolte	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193111AA	11/07/2019 17:05	Stephen C Nolte	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19305WAD026	11/08/2019 17:32	Anthony P Bauer	10
07807	BNA Water Extraction	SW-846 3510C	1	19305WAD026	11/01/2019 16:35	Osvaldo R Sanchez	1

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Sample Description: **N-2_20191025 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/25/2019 11:45

Evergreen c/o Stantec
ELLE Sample #: GW 1189887
ELLE Group #: 2072152
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	EDB in Wastewater	SW-846 8011	1	193050023A	11/04/2019 20:26	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193050023A	11/04/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193091404703A	11/08/2019 10:01	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193091404703	11/06/2019 04:34	James L Mertz	1

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Sample Description: N-3_20191025 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/25/2019 13:30

Evergreen c/o Stantec
ELLE Sample #: GW 1189888
ELLE Group #: 2072152
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	6	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	7	0.2	1
10945	Isopropylbenzene	98-82-8	2 J	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	9	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	0.3 J	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	1 J	0.3	1
10945	Xylene (Total)	1330-20-7	12	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	2	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	0.2 J	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.81	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F193111AA	11/07/2019 17:28	Stephen C Nolte	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193111AA	11/07/2019 17:27	Stephen C Nolte	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19305WAD026	11/08/2019 18:00	Anthony P Bauer	1
07807	BNA Water Extraction	SW-846 3510C	1	19305WAD026	11/01/2019 16:35	Osvaldo R Sanchez	1
10398	EDB in Wastewater	SW-846 8011	1	193050023A	11/06/2019 21:50	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193050023A	11/04/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193091404703A	11/08/2019 10:18	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193091404703	11/06/2019 04:34	James L Mertz	1

REVISED

Sample Description: N-156_20191028 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/28/2019 13:35

Evergreen c/o Stantec
ELLE Sample #: GW 1189889
ELLE Group #: 2072152
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	4	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	0.4 J	0.2	1
10945	Isopropylbenzene	98-82-8	11	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	0.4 J	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	12	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	8	0.3	1
10945	Xylene (Total)	1330-20-7	3 J	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	7	0.1	1
14249	Benzo(a)anthracene	56-55-3	0.5	0.1	1
14249	Benzo(a)pyrene	50-32-8	0.2 J	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	0.4 J	0.1	1
14249	Fluorene	86-73-7	32	0.1	1
14249	Naphthalene	91-20-3	3	0.1	1
14249	Phenanthrene	85-01-8	45	0.1	1
14249	Pyrene	129-00-0	3	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F193115AA	11/08/2019 00:37	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193115AA	11/08/2019 00:36	Kevin A Sposito	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19305WAD026	11/08/2019 18:29	Anthony P Bauer	1
07807	BNA Water Extraction	SW-846 3510C	1	19305WAD026	11/01/2019 16:35	Osvaldo R Sanchez	1
10398	EDB in Wastewater	SW-846 8011	1	193050023A	11/06/2019 22:38	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193050023A	11/04/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193091404703A	11/08/2019 10:16	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193091404703	11/06/2019 04:34	James L Mertz	1

REVISED

Sample Description: PGW-MW-6_20191029 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/29/2019 11:10

Evergreen c/o Stantec
ELLE Sample #: GW 1189890
ELLE Group #: 2072152
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	1	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	0.3 J	0.2	1
10945	Isopropylbenzene	98-82-8	20	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.3 J	0.2	1
10945	Toluene	108-88-3	0.2 J	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	0.3 J	0.3	1
10945	Xylene (Total)	1330-20-7	1 J	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	3	0.1	1
14249	Benzo(a)anthracene	56-55-3	0.5	0.1	1
14249	Benzo(a)pyrene	50-32-8	0.5 J	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	0.6	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	0.4 J	0.1	1
14249	Chrysene	218-01-9	0.6	0.1	1
14249	Fluorene	86-73-7	19	0.1	1
14249	Naphthalene	91-20-3	0.4 J	0.1	1
14249	Phenanthrene	85-01-8	2	0.1	1
14249	Pyrene	129-00-0	3	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. ZD1	0.0094	1

The response for the surrogate,1,1,2,2-PCA in the continuing calibration verification standard is outside the QC acceptance limits on the D1 column. The data is reported.
Z = A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. Since the result is high and the target analyte(s) is not detected in the sample, the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	1.1	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F193125AA	11/09/2019 01:55	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193125AA	11/09/2019 01:54	Kevin A Sposito	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19306WAA026	11/06/2019 22:36	Ashley R Transue	1
07807	BNA Water Extraction	SW-846 3510C	1	19306WAA026	11/04/2019 09:30	Joshua S Ruth	1

REVISED

Sample Description: **PGW-MW-6_20191029 Grab Groundwater**
2019 Q4 GWS PHL

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/29/2019 11:10

Evergreen c/o Stantec
ELLE Sample #: GW 1189890
ELLE Group #: 2072152
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	EDB in Wastewater	SW-846 8011	1	193050023A	11/04/2019 20:42	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193050023A	11/04/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193091404703A	11/08/2019 10:20	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193091404703	11/06/2019 04:34	James L Mertz	1

REVISED

Sample Description: PGW-MW-21_20191029 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/29/2019 12:55

Evergreen c/o Stantec
ELLE Sample #: GW 1189891
ELLE Group #: 2072152
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	110	1	5
10945	1,2-Dichloroethane	107-06-2	N.D.	10	5
10945	Ethylbenzene	100-41-4	160	1	5
10945	Isopropylbenzene	98-82-8	40	2	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	5
10945	Toluene	108-88-3	16	1	5
10945	1,2,4-Trimethylbenzene	95-63-6	79	2	5
10945	1,3,5-Trimethylbenzene	108-67-8	27	2	5
10945	Xylene (Total)	1330-20-7	150	4	5
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	19	0.1	1
14249	Benzo(a)anthracene	56-55-3	2	0.1	1
14249	Benzo(a)pyrene	50-32-8	1	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	1	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	0.8	0.1	1
14249	Chrysene	218-01-9	1	0.1	1
14249	Fluorene	86-73-7	110	0.1	1
14249	Naphthalene	91-20-3	790	5	50
14249	Phenanthrene	85-01-8	97	0.1	1
14249	Pyrene	129-00-0	8	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. DZ1	0.0095	1

The response for the surrogate,1,1,2,2-PCA in the continuing calibration verification standard is outside the QC acceptance limits on the D1 column. The data is reported.
Z = A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. Since the result is high and the target analyte(s) is not detected in the sample, the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F193121AA	11/08/2019 16:08	Anita M Dale	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193121AA	11/08/2019 16:07	Anita M Dale	5
14249	PAHs 8270C MINI	SW-846 8270C	1	19305WAD026	11/08/2019 18:58	Anthony P Bauer	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19305WAD026	11/09/2019 23:43	Holly B Ziegler	50

REVISED

Sample Description: **PGW-MW-21_20191029 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/29/2019 12:55

Evergreen c/o Stantec
ELLE Sample #: GW 1189891
ELLE Group #: 2072152
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07807	BNA Water Extraction	SW-846 3510C	1	19305WAD026	11/01/2019 16:35	Osvaldo R Sanchez	1
10398	EDB in Wastewater	SW-846 8011	1	193050023A	11/04/2019 21:30	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193050023A	11/04/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193091404703A	11/08/2019 10:11	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193091404703	11/06/2019 04:34	James L Mertz	1

REVISED

Sample Description: RW-701_20191028 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/28/2019 13:26

Evergreen c/o Stantec
ELLE Sample #: GW 1189892
ELLE Group #: 2072152
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	3,100	10	50
10945	t-Butyl alcohol	75-65-0	150	50	5
10945	1,2-Dichloroethane	107-06-2	N.D.	10	5
10945	Ethylbenzene	100-41-4	240	1	5
10945	Isopropylbenzene	98-82-8	8 J	2	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	27	1	5
10945	Toluene	108-88-3	1,000	10	50
10945	1,2,4-Trimethylbenzene	95-63-6	280	2	5
10945	1,3,5-Trimethylbenzene	108-67-8	96	2	5
10945	Xylene (Total)	1330-20-7	1,500	4	5
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	10	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	23	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	70	0.1	1
14249	Pyrene	129-00-0	4	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	0.16 D1	0.0096	1
	The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.				
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.57	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193121AA	11/08/2019 16:30	Anita M Dale	5
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193121AA	11/08/2019 16:53	Anita M Dale	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193121AA	11/08/2019 16:29	Anita M Dale	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F193121AA	11/08/2019 16:52	Anita M Dale	50
14249	PAHs 8270C MINI	SW-846 8270C	1	19305WAD026	11/08/2019 19:26	Anthony P Bauer	1
07807	BNA Water Extraction	SW-846 3510C	1	19305WAD026	11/01/2019 16:35	Osvaldo R Sanchez	1
10398	EDB in Wastewater	SW-846 8011	1	193050023A	11/06/2019 22:53	Rachel Umberger	1

REVISED

Sample Description: **RW-701_20191028 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/28/2019 13:26

Evergreen c/o Stantec
ELLE Sample #: GW 1189892
ELLE Group #: 2072152
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07786	EDB Extraction (8011)	SW-846 8011	1	193050023A	11/04/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193091404703A	11/08/2019 10:12	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193091404703	11/06/2019 04:34	James L Mertz	1

REVISED

Sample Description: RW-708_20191028 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/28/2019 12:40

Evergreen c/o Stantec
ELLE Sample #: GW 1189893
ELLE Group #: 2072152
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	0.6 J	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	8	0.2	1
10945	Isopropylbenzene	98-82-8	0.4 J	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	2	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	24	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	20	0.3	1
10945	Xylene (Total)	1330-20-7	74	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	0.3 J	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. ZD1	0.0094	1

The response for the surrogate,1,1,2,2-PCA in the continuing calibration verification standard is outside the QC acceptance limits on the D1 column. The data is reported.
Z = A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. Since the result is high and the target analyte(s) is not detected in the sample, the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.23 J	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193115AA	11/08/2019 01:22	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193115AA	11/08/2019 01:21	Kevin A Sposito	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19305WAD026	11/08/2019 19:55	Anthony P Bauer	1

REVISED

Sample Description: **RW-708_20191028 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/28/2019 12:40

Evergreen c/o Stantec
ELLE Sample #: GW 1189893
ELLE Group #: 2072152
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07807	BNA Water Extraction	SW-846 3510C	1	19305WAD026	11/01/2019 16:35	Osvaldo R Sanchez	1
10398	EDB in Wastewater	SW-846 8011	1	193050023A	11/04/2019 22:01	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193050023A	11/04/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193091404703A	11/08/2019 10:00	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193091404703	11/06/2019 04:34	James L Mertz	1

REVISED

Sample Description: RW-715_20191028 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/28/2019 10:05

Evergreen c/o Stantec
ELLE Sample #: GW 1189894
ELLE Group #: 2072152
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	
10945	Benzene	71-43-2	0.6	J	0.2	1
10945	t-Butyl alcohol	75-65-0	11	J	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.		2	1
10945	Ethylbenzene	100-41-4	N.D.		0.2	1
10945	Isopropylbenzene	98-82-8	N.D.		0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.9	J	0.2	1
10945	Toluene	108-88-3	N.D.		0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.		0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.		0.3	1
10945	Xylene (Total)	1330-20-7	N.D.		0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	
14249	Anthracene	120-12-7	N.D.		0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.		0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.		0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.		0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.		0.1	1
14249	Chrysene	218-01-9	N.D.		0.1	1
14249	Fluorene	86-73-7	N.D.		0.1	1
14249	Naphthalene	91-20-3	N.D.		0.1	1
14249	Phenanthrene	85-01-8	N.D.		0.1	1
14249	Pyrene	129-00-0	N.D.		0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D.	ZD1	0.0094	1

The response for the surrogate,1,1,2,2-PCA in the continuing calibration verification standard is outside the QC acceptance limits on the D1 column. The data is reported.
Z = A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. Since the result is high and the target analyte(s) is not detected in the sample, the data is reported.

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	
06035	Lead	7439-92-1	N.D.		0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193122AA	11/08/2019 10:48	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193122AA	11/08/2019 10:47	Anita M Dale	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19305WAD026	11/08/2019 20:24	Anthony P Bauer	1

REVISED

Sample Description: **RW-715_20191028 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/28/2019 10:05

Evergreen c/o Stantec
ELLE Sample #: GW 1189894
ELLE Group #: 2072152
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07807	BNA Water Extraction	SW-846 3510C	1	19305WAD026	11/01/2019 16:35	Osvaldo R Sanchez	1
10398	EDB in Wastewater	SW-846 8011	1	193050023A	11/04/2019 22:17	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193050023A	11/04/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193091404703A	11/08/2019 09:56	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193091404703	11/06/2019 04:34	James L Mertz	1

REVISED

Sample Description: S-38_20191028 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/28/2019 11:23

Evergreen c/o Stantec
ELLE Sample #: GW 1189895
ELLE Group #: 2072152
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	
10945	Benzene	71-43-2	81		1	5
10945	t-Butyl alcohol	75-65-0	59	J	50	5
10945	1,2-Dichloroethane	107-06-2	N.D.		10	5
10945	Ethylbenzene	100-41-4	130		1	5
10945	Isopropylbenzene	98-82-8	18	J	2	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		1	5
10945	Toluene	108-88-3	230		1	5
10945	1,2,4-Trimethylbenzene	95-63-6	28		2	5
10945	1,3,5-Trimethylbenzene	108-67-8	14	J	2	5
10945	Xylene (Total)	1330-20-7	160		4	5
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	
14249	Anthracene	120-12-7	N.D.		0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.		0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.		0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.		0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.		0.1	1
14249	Chrysene	218-01-9	N.D.		0.1	1
14249	Fluorene	86-73-7	N.D.		0.1	1
14249	Naphthalene	91-20-3	38		0.1	1
14249	Phenanthrene	85-01-8	N.D.		0.1	1
14249	Pyrene	129-00-0	N.D.		0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D.	ZD1	0.0093	1

The response for the surrogate,1,1,2,2-PCA in the continuing calibration verification standard is outside the QC acceptance limits on the D1 column. The data is reported.
Z = A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. Since the result is high and the target analyte(s) is not detected in the sample, the data is reported.

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	
06035	Lead	7439-92-1	N.D.		0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193122AA	11/08/2019 11:10	Anita M Dale	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193122AA	11/08/2019 11:09	Anita M Dale	5
14249	PAHs 8270C MINI	SW-846 8270C	1	19305WAD026	11/08/2019 20:53	Anthony P Bauer	1

REVISED

Sample Description: **S-38_20191028 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/28/2019 11:23

Evergreen c/o Stantec
ELLE Sample #: GW 1189895
ELLE Group #: 2072152
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07807	BNA Water Extraction	SW-846 3510C	1	19305WAD026	11/01/2019 16:35	Osvaldo R Sanchez	1
10398	EDB in Wastewater	SW-846 8011	1	193050023A	11/04/2019 22:33	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193050023A	11/04/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193091404704A	11/06/2019 15:19	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193091404704	11/05/2019 13:25	JoElla L Rice	1

REVISED

Sample Description: RW-703_20191029 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/29/2019 10:01

Evergreen c/o Stantec
ELLE Sample #: GW 1189896
ELLE Group #: 2072152
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	18,000	40	200
10945	t-Butyl alcohol	75-65-0	360 J	200	20
10945	1,2-Dichloroethane	107-06-2	N.D.	40	20
10945	Ethylbenzene	100-41-4	710	4	20
10945	Isopropylbenzene	98-82-8	18 J	6	20
10945	Methyl Tertiary Butyl Ether	1634-04-4	140	4	20
10945	Toluene	108-88-3	8,400	40	200
10945	1,2,4-Trimethylbenzene	95-63-6	490	6	20
10945	1,3,5-Trimethylbenzene	108-67-8	150	6	20
10945	Xylene (Total)	1330-20-7	4,600	16	20
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	5	0.1	1
14249	Naphthalene	91-20-3	120	0.1	1
14249	Phenanthrene	85-01-8	9	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. ZD1	0.0094	1

The response for the surrogate,1,1,2,2-PCA in the continuing calibration verification standard is outside the QC acceptance limits on the D1 column. The data is reported.
Z = A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. Since the result is high and the target analyte(s) is not detected in the sample, the data is reported.

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.53	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193122AA	11/08/2019 16:18	Anita M Dale	20
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193122AA	11/08/2019 16:40	Anita M Dale	200

REVISED

Sample Description: **RW-703_20191029 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/29/2019 10:01

Evergreen c/o Stantec
ELLE Sample #: GW 1189896
ELLE Group #: 2072152
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193122AA	11/08/2019 16:17	Anita M Dale	20
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F193122AA	11/08/2019 16:39	Anita M Dale	200
14249	PAHs 8270C MINI	SW-846 8270C	1	19305WAD026	11/08/2019 21:21	Anthony P Bauer	1
07807	BNA Water Extraction	SW-846 3510C	1	19305WAD026	11/01/2019 16:35	Osvaldo R Sanchez	1
10398	EDB in Wastewater	SW-846 8011	1	193050023A	11/04/2019 22:49	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193050023A	11/04/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193091404703A	11/08/2019 10:03	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193091404703	11/06/2019 04:34	James L Mertz	1

REVISED

Sample Description: S-13_20191028 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/28/2019 11:20

Evergreen c/o Stantec
ELLE Sample #: GW 1189897
ELLE Group #: 2072152
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	990	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	220	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. ZD1	0.0094	1

The response for the surrogate,1,1,2,2-PCA in the continuing calibration verification standard is outside the QC acceptance limits on the D1 column. The data is reported.
Z = A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. Since the result is high and the target analyte(s) is not detected in the sample, the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.57	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193115AA	11/08/2019 05:57	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193115AA	11/08/2019 05:56	Kevin A Sposito	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19305WAD026	11/10/2019 00:12	Holly B Ziegler	1

REVISED

Sample Description: **S-13_20191028 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/28/2019 11:20

Evergreen c/o Stantec
ELLE Sample #: GW 1189897
ELLE Group #: 2072152
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07807	BNA Water Extraction	SW-846 3510C	1	19305WAD026	11/01/2019 16:35	Osvaldo R Sanchez	1
10398	EDB in Wastewater	SW-846 8011	1	193050023A	11/04/2019 23:05	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193050023A	11/04/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193091404703A	11/08/2019 10:05	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193091404703	11/06/2019 04:34	James L Mertz	1

REVISED

Sample Description: S-284D_20191028 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/28/2019 13:20

Evergreen c/o Stantec
ELLE Sample #: GW 1189898
ELLE Group #: 2072152
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	0.3 J	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	1 J	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	1	0.1	1
14249	Naphthalene	91-20-3	2	0.1	1
14249	Phenanthrene	85-01-8	2	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. ZD1	0.0094	1

The response for the surrogate,1,1,2,2-PCA in the continuing calibration verification standard is outside the QC acceptance limits on the D1 column. The data is reported.
Z = A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. Since the result is high and the target analyte(s) is not detected in the sample, the data is reported.

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193115AA	11/08/2019 06:19	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193115AA	11/08/2019 06:18	Kevin A Sposito	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19305WAD026	11/10/2019 00:40	Holly B Ziegler	1

REVISED

Sample Description: **S-284D_20191028 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/28/2019 13:20

Evergreen c/o Stantec
ELLE Sample #: GW 1189898
ELLE Group #: 2072152
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07807	BNA Water Extraction	SW-846 3510C	1	19305WAD026	11/01/2019 16:35	Osvaldo R Sanchez	1
10398	EDB in Wastewater	SW-846 8011	1	193050023A	11/04/2019 23:21	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193050023A	11/04/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193091404705A	11/08/2019 20:32	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193091404705	11/06/2019 04:45	James L Mertz	1

REVISED

Sample Description: S-411_20191029 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/29/2019 12:40

Evergreen c/o Stantec
ELLE Sample #: GW 1189899
ELLE Group #: 2072152
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1

The response for the surrogate,1,1,2,2-PCA in the continuing calibration verification standard is outside the QC acceptance limits on the D1 column. The data is reported.
Z = A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. Since the result is high and the target analyte(s) is not detected in the sample, the data is reported.

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193122AA	11/08/2019 17:02	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193122AA	11/08/2019 17:01	Anita M Dale	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19306WAA026	11/06/2019 23:05	Ashley R Transue	1

REVISED

Sample Description: **S-411_20191029 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/29/2019 12:40

Evergreen c/o Stantec
ELLE Sample #: GW 1189899
ELLE Group #: 2072152
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07807	BNA Water Extraction	SW-846 3510C	1	19306WAA026	11/04/2019 09:30	Joshua S Ruth	1
10398	EDB in Wastewater	SW-846 8011	1	193050023A	11/04/2019 23:36	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193050023A	11/04/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193091404704A	11/06/2019 15:08	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193091404704	11/05/2019 13:25	JoElla L Rice	1

REVISED

Sample Description: S-280D_20191029 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/29/2019 09:45

Evergreen c/o Stantec
ELLE Sample #: GW 1189900
ELLE Group #: 2072152
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. ZD1	0.0094	1

The response for the surrogate,1,1,2,2-PCA in the continuing calibration verification standard is outside the QC acceptance limits on the D1 column. The data is reported.
Z = A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. Since the result is high and the target analyte(s) is not detected in the sample, the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.18 J	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193122AA	11/08/2019 17:24	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193122AA	11/08/2019 17:23	Anita M Dale	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19306WAA026	11/06/2019 23:34	Ashley R Transue	1

REVISED

Sample Description: **S-280D_20191029 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/29/2019 09:45

Evergreen c/o Stantec
ELLE Sample #: GW 1189900
ELLE Group #: 2072152
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07807	BNA Water Extraction	SW-846 3510C	1	19306WAA026	11/04/2019 09:30	Joshua S Ruth	1
10398	EDB in Wastewater	SW-846 8011	1	193050023A	11/04/2019 23:52	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193050023A	11/04/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193091404704A	11/06/2019 15:37	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193091404704	11/05/2019 13:25	JoElla L Rice	1

REVISED

Sample Description: S-69D_20191029 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/29/2019 11:20

Evergreen c/o Stantec
ELLE Sample #: GW 1189901
ELLE Group #: 2072152
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	2	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. ZD1	0.0095	1

The response for the surrogate,1,1,2,2-PCA in the continuing calibration verification standard is outside the QC acceptance limits on the D1 column. The data is reported.
Z = A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. Since the result is high and the target analyte(s) is not detected in the sample, the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.090 J	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193122AA	11/08/2019 17:46	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193122AA	11/08/2019 17:45	Anita M Dale	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19306WAA026	11/07/2019 00:31	Ashley R Transue	1

REVISED

Sample Description: **S-69D_20191029 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/29/2019 11:20

Evergreen c/o Stantec
ELLE Sample #: GW 1189901
ELLE Group #: 2072152
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07807	BNA Water Extraction	SW-846 3510C	1	19306WAA026	11/04/2019 09:30	Joshua S Ruth	1
10398	EDB in Wastewater	SW-846 8011	1	193050023A	11/05/2019 00:40	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193050023A	11/04/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193091404703A	11/08/2019 09:54	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193091404703	11/06/2019 04:34	James L Mertz	1

REVISED

Sample Description: S-20_20191029 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/29/2019 14:00

Evergreen c/o Stantec
ELLE Sample #: GW 1189902
ELLE Group #: 2072152
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	0.5 J	0.2	1
10945	t-Butyl alcohol	75-65-0	800	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	0.3 J	0.2	1
10945	Isopropylbenzene	98-82-8	14	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	44	0.2	1
10945	Toluene	108-88-3	1	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	4	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	0.5 J	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	0.7	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. ZD1	0.0094	1

The response for the surrogate,1,1,2,2-PCA in the continuing calibration verification standard is outside the QC acceptance limits on the D1 column. The data is reported.
Z = A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. Since the result is high and the target analyte(s) is not detected in the sample, the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.52	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193122AA	11/08/2019 18:08	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193122AA	11/08/2019 18:07	Anita M Dale	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19306WAA026	11/07/2019 01:00	Ashley R Transue	1

REVISED

Sample Description: **S-20_20191029 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/29/2019 14:00

Evergreen c/o Stantec
ELLE Sample #: GW 1189902
ELLE Group #: 2072152
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07807	BNA Water Extraction	SW-846 3510C	1	19306WAA026	11/04/2019 09:30	Joshua S Ruth	1
10398	EDB in Wastewater	SW-846 8011	1	193050023A	11/05/2019 00:56	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193050023A	11/04/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193091404703A	11/08/2019 10:22	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193091404703	11/06/2019 04:34	James L Mertz	1

REVISED

Sample Description: S-50_20191029 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/29/2019 11:30

Evergreen c/o Stantec
ELLE Sample #: GW 1189903
ELLE Group #: 2072152
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	
10945	Benzene	71-43-2	2,300		10	50
10945	t-Butyl alcohol	75-65-0	130		50	5
10945	1,2-Dichloroethane	107-06-2	N.D.		10	5
10945	Ethylbenzene	100-41-4	120		1	5
10945	Isopropylbenzene	98-82-8	19	J	2	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		1	5
10945	Toluene	108-88-3	16		1	5
10945	1,2,4-Trimethylbenzene	95-63-6	6	J	2	5
10945	1,3,5-Trimethylbenzene	108-67-8	8	J	2	5
10945	Xylene (Total)	1330-20-7	15		4	5
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	
14249	Anthracene	120-12-7	N.D.		0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.		0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.		0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.		0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.		0.1	1
14249	Chrysene	218-01-9	N.D.		0.1	1
14249	Fluorene	86-73-7	0.3	J	0.1	1
14249	Naphthalene	91-20-3	70		0.1	1
14249	Phenanthrene	85-01-8	0.3	J	0.1	1
14249	Pyrene	129-00-0	N.D.		0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D.	ZD1	0.0095	1

The response for the surrogate,1,1,2,2-PCA in the continuing calibration verification standard is outside the QC acceptance limits on the D1 column. The data is reported.
Z = A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. Since the result is high and the target analyte(s) is not detected in the sample, the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	
06035	Lead	7439-92-1	0.30	J	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193122AA	11/08/2019 18:30	Anita M Dale	5
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193122AA	11/08/2019 18:52	Anita M Dale	50

REVISED

Sample Description: **S-50_20191029 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/29/2019 11:30

Evergreen c/o Stantec
ELLE Sample #: GW 1189903
ELLE Group #: 2072152
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193122AA	11/08/2019 18:29	Anita M Dale	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F193122AA	11/08/2019 18:51	Anita M Dale	50
14249	PAHs 8270C MINI	SW-846 8270C	1	19306WAA026	11/07/2019 01:28	Ashley R Transue	1
07807	BNA Water Extraction	SW-846 3510C	1	19306WAA026	11/04/2019 09:30	Joshua S Ruth	1
10398	EDB in Wastewater	SW-846 8011	1	193050023A	11/05/2019 01:11	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193050023A	11/04/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193091404703A	11/08/2019 10:14	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193091404703	11/06/2019 04:34	James L Mertz	1

REVISED

Sample Description: S-230_20191029 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/29/2019 13:00

Evergreen c/o Stantec
ELLE Sample #: GW 1189904
ELLE Group #: 2072152
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	6,000	10	50
10945	t-Butyl alcohol	75-65-0	150	50	5
10945	1,2-Dichloroethane	107-06-2	N.D.	10	5
10945	Ethylbenzene	100-41-4	36	1	5
10945	Isopropylbenzene	98-82-8	2 J	2	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	5
10945	Toluene	108-88-3	24	1	5
10945	1,2,4-Trimethylbenzene	95-63-6	12 J	2	5
10945	1,3,5-Trimethylbenzene	108-67-8	4 J	2	5
10945	Xylene (Total)	1330-20-7	15	4	5
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	5	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	0.2 J	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. ZD1	0.0094	1
	The response for the surrogate,1,1,2,2-PCA in the continuing calibration verification standard is outside the QC acceptance limits on the D1 column. The data is reported. Z = A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. Since the result is high and the target analyte(s) is not detected in the sample, the data is reported.				
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.11 J	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193122AA	11/08/2019 19:14	Anita M Dale	5
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193122AA	11/08/2019 19:37	Anita M Dale	50

REVISED

Sample Description: **S-230_20191029 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/29/2019 13:00

Evergreen c/o Stantec
ELLE Sample #: GW 1189904
ELLE Group #: 2072152
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193122AA	11/08/2019 19:13	Anita M Dale	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F193122AA	11/08/2019 19:36	Anita M Dale	50
14249	PAHs 8270C MINI	SW-846 8270C	1	19306WAA026	11/07/2019 01:57	Ashley R Transue	1
07807	BNA Water Extraction	SW-846 3510C	1	19306WAA026	11/04/2019 09:30	Joshua S Ruth	1
10398	EDB in Wastewater	SW-846 8011	1	193050023A	11/05/2019 01:27	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193050023A	11/04/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193091404704A	11/06/2019 15:21	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193091404704	11/05/2019 13:25	JoElla L Rice	1

REVISED

Sample Description: S-44_20191029 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/29/2019 13:50

Evergreen c/o Stantec
ELLE Sample #: GW 1189905
ELLE Group #: 2072152
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	160	0.2	1
10945	t-Butyl alcohol	75-65-0	2,600	100	10
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	4	0.2	1
10945	Isopropylbenzene	98-82-8	34	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	72	0.2	1
10945	Toluene	108-88-3	11	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	1 J	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	2 J	0.3	1
10945	Xylene (Total)	1330-20-7	19	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. ZD1	0.0094	1

The response for the surrogate,1,1,2,2-PCA in the continuing calibration verification standard is outside the QC acceptance limits on the D1 column. The data is reported.
Z = A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. Since the result is high and the target analyte(s) is not detected in the sample, the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.14 J	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193125AA	11/09/2019 02:17	Kevin A Sposito	1
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193152AA	11/12/2019 01:37	Kevin A Sposito	10

REVISED

Sample Description: **S-44_20191029 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/29/2019 13:50

Evergreen c/o Stantec
ELLE Sample #: GW 1189905
ELLE Group #: 2072152
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193125AA	11/09/2019 02:16	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F193152AA	11/12/2019 01:36	Kevin A Sposito	10
14249	PAHs 8270C MINI	SW-846 8270C	1	19306WAA026	11/07/2019 02:25	Ashley R Transue	1
07807	BNA Water Extraction	SW-846 3510C	1	19306WAA026	11/04/2019 09:30	Joshua S Ruth	1
10398	EDB in Wastewater	SW-846 8011	1	193050023A	11/05/2019 01:43	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193050023A	11/04/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193091404705A	11/08/2019 20:10	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193091404705	11/06/2019 04:45	James L Mertz	1

REVISED

Sample Description: S-422_20191030 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/30/2019 10:20

Evergreen c/o Stantec
ELLE Sample #: GW 1189906
ELLE Group #: 2072152
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	1 J	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. ZD1	0.0094	1

The response for the surrogate,1,1,2,2-PCA in the continuing calibration verification standard is outside the QC acceptance limits on the D1 column. The data is reported.
Z = A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. Since the result is high and the target analyte(s) is not detected in the sample, the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193125AA	11/09/2019 02:39	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193125AA	11/09/2019 02:38	Kevin A Sposito	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19306WAA026	11/07/2019 02:54	Ashley R Transue	1

REVISED

Sample Description: **S-422_20191030 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/30/2019 10:20

Evergreen c/o Stantec
ELLE Sample #: GW 1189906
ELLE Group #: 2072152
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07807	BNA Water Extraction	SW-846 3510C	1	19306WAA026	11/04/2019 09:30	Joshua S Ruth	1
10398	EDB in Wastewater	SW-846 8011	1	193050023A	11/05/2019 01:59	Rachel Umberger	1
07786	EDB Extraction (8011)	SW-846 8011	1	193050023A	11/04/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193091404703A	11/08/2019 09:58	Choon Y Tian	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193091404703	11/06/2019 04:34	James L Mertz	1

REVISED

Sample Description: N-75_20191028 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/28/2019 10:10

Evergreen c/o Stantec
ELLE Sample #: GW 1189907
ELLE Group #: 2072152
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	7	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	0.6 J	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	0.2 J	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	0.6	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	3	0.1	1
14249	Naphthalene	91-20-3	0.8	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	0.4 J	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1 Q1Q3	0.0094	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the target analyte(s) was not detected in the sample, the data is reported.
The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following action was taken:
The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor

REVISED

Sample Description: **N-75_20191028 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/28/2019 10:10

Evergreen c/o Stantec
ELLE Sample #: GW 1189907
ELLE Group #: 2072152
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F193115AA	11/08/2019 00:59	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193115AA	11/08/2019 00:58	Kevin A Sposito	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19306WAA026	11/07/2019 03:22	Ashley R Transue	1
07807	BNA Water Extraction	SW-846 3510C	1	19306WAA026	11/04/2019 09:30	Joshua S Ruth	1
10398	EDB in Wastewater	SW-846 8011	1	193060001A	11/07/2019 03:55	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193060001A	11/04/2019 08:00	Logan M Brosemer	1
06035	Lead	SW-846 6020	1	193091404704A	11/06/2019 15:36	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193091404704	11/05/2019 13:25	JoElla L Rice	1

REVISED

Sample Description: S-87I_20191028 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/28/2019 11:15

Evergreen c/o Stantec
ELLE Sample #: GW 1189908
ELLE Group #: 2072152
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	1	5
10945	t-Butyl alcohol	75-65-0	150,000	5,000	500
10945	1,2-Dichloroethane	107-06-2	N.D.	10	5
10945	Ethylbenzene	100-41-4	N.D.	1	5
10945	Isopropylbenzene	98-82-8	N.D.	2	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	280	1	5
10945	Toluene	108-88-3	N.D.	1	5
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	2	5
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	2	5
10945	Xylene (Total)	1330-20-7	N.D.	4	5
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1 Q1Q3	0.0094	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the target analyte(s) was not detected in the sample, the data is reported.
The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following action was taken:
The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor

REVISED

Sample Description: **S-87I_20191028 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/28/2019 11:15

Evergreen c/o Stantec
ELLE Sample #: GW 1189908
ELLE Group #: 2072152
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193121AA	11/08/2019 17:15	Anita M Dale	5
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193126AA	11/08/2019 22:46	Kevin A Sposito	500
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193121AA	11/08/2019 17:14	Anita M Dale	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F193126AA	11/08/2019 22:45	Kevin A Sposito	500
14249	PAHs 8270C MINI	SW-846 8270C	1	19306WAA026	11/07/2019 03:51	Ashley R Transue	1
07807	BNA Water Extraction	SW-846 3510C	1	19306WAA026	11/04/2019 09:30	Joshua S Ruth	1
10398	EDB in Wastewater	SW-846 8011	1	193060001A	11/07/2019 04:43	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193060001A	11/04/2019 08:00	Logan M Brosemer	1
06035	Lead	SW-846 6020	1	193091404704A	11/06/2019 15:28	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193091404704	11/05/2019 13:25	JoElla L Rice	1

REVISED

Sample Description: S-399_20191028 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/28/2019 12:35

Evergreen c/o Stantec
ELLE Sample #: GW 1189909
ELLE Group #: 2072152
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	0.4 J	0.2	1
10945	t-Butyl alcohol	75-65-0	2,200 E	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	0.9 J	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	22	0.2	1
10945	Toluene	108-88-3	0.3 J	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1

The concentration reported for t-butyl alcohol is estimated since it exceeds the calibration range of the instrument. A further diluted analysis was performed from a previously opened container with headspace and/or outside of the method holding time. The result for t-butyl alcohol is 2100 ug/l.

GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	0.1 J	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	0.6	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1

Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1 Q1	0.0094	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the target analyte(s) was not detected in the sample, the data is reported.
The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following action was taken:
The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

REVISED

Sample Description: **S-399_20191028 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/28/2019 12:35

Evergreen c/o Stantec
ELLE Sample #: GW 1189909
ELLE Group #: 2072152
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193121AA	11/08/2019 11:23	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193121AA	11/08/2019 11:22	Anita M Dale	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19306WAA026	11/07/2019 04:19	Ashley R Transue	1
07807	BNA Water Extraction	SW-846 3510C	1	19306WAA026	11/04/2019 09:30	Joshua S Ruth	1
10398	EDB in Wastewater	SW-846 8011	1	193060001A	11/07/2019 04:59	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193060001A	11/04/2019 08:00	Logan M Brosemer	1
06035	Lead	SW-846 6020	1	193091404704A	11/06/2019 15:25	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193091404704	11/05/2019 13:25	JoElla L Rice	1

REVISED

Sample Description: S-38D2_20191028 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/28/2019 14:05

Evergreen c/o Stantec
ELLE Sample #: GW 1189910
ELLE Group #: 2072152
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	1	0.2	1
10945	t-Butyl alcohol	75-65-0	20 J	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	0.2 J	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1 Q1	0.0094	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the target analyte(s) was not detected in the sample, the data is reported.
The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following action was taken:
The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.081 J	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor

REVISED

Sample Description: **S-38D2_20191028 Grab Groundwater**
2019 Q4 GWS PHL

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/28/2019 14:05

Evergreen c/o Stantec
ELLE Sample #: GW 1189910
ELLE Group #: 2072152
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193121AA	11/08/2019 11:44	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193121AA	11/08/2019 11:43	Anita M Dale	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19306WAA026	11/07/2019 04:48	Ashley R Transue	1
07807	BNA Water Extraction	SW-846 3510C	1	19306WAA026	11/04/2019 09:30	Joshua S Ruth	1
10398	EDB in Wastewater	SW-846 8011	1	193060001A	11/07/2019 05:15	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193060001A	11/04/2019 08:00	Logan M Brosemer	1
06035	Lead	SW-846 6020	1	193091404704A	11/06/2019 15:27	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193091404704	11/05/2019 13:25	JoElla L Rice	1

REVISED

Sample Description: S-39D_20191029 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/29/2019 10:10

Evergreen c/o Stantec
ELLE Sample #: GW 1189911
ELLE Group #: 2072152
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	31	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1 Q1	0.0094	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the target analyte(s) was not detected in the sample, the data is reported.
The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following action was taken:
The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor

REVISED

Sample Description: **S-39D_20191029 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/29/2019 10:10

Evergreen c/o Stantec
ELLE Sample #: GW 1189911
ELLE Group #: 2072152
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193125AA	11/09/2019 03:01	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193125AA	11/09/2019 03:00	Kevin A Sposito	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19306WAA026	11/07/2019 05:16	Ashley R Transue	1
07807	BNA Water Extraction	SW-846 3510C	1	19306WAA026	11/04/2019 09:30	Joshua S Ruth	1
10398	EDB in Wastewater	SW-846 8011	1	193060001A	11/07/2019 05:31	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193060001A	11/04/2019 08:00	Logan M Brosemer	1
06035	Lead	SW-846 6020	1	193091404704A	11/06/2019 15:34	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193091404704	11/05/2019 13:25	JoElla L Rice	1

REVISED

Sample Description: S-218D_20191029 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/29/2019 12:05

Evergreen c/o Stantec
ELLE Sample #: GW 1189912
ELLE Group #: 2072152
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	37	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1 Q1	0.0094	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the target analyte(s) was not detected in the sample, the data is reported.
The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following action was taken:
The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor

REVISED

Sample Description: **S-218D_20191029 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/29/2019 12:05

Evergreen c/o Stantec
ELLE Sample #: GW 1189912
ELLE Group #: 2072152
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193125AA	11/09/2019 03:23	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193125AA	11/09/2019 03:22	Kevin A Sposito	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19306WAA026	11/07/2019 05:45	Ashley R Transue	1
07807	BNA Water Extraction	SW-846 3510C	1	19306WAA026	11/04/2019 09:30	Joshua S Ruth	1
10398	EDB in Wastewater	SW-846 8011	1	193060001A	11/07/2019 06:18	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193060001A	11/04/2019 08:00	Logan M Brosemer	1
06035	Lead	SW-846 6020	1	193091404704A	11/06/2019 15:33	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193091404704	11/05/2019 13:25	JoElla L Rice	1

REVISED

Sample Description: C-134D_20191029 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/29/2019 13:45

Evergreen c/o Stantec
ELLE Sample #: GW 1189913
ELLE Group #: 2072152
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	4	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.3 J	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D. Q0	0.1	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. No further action was taken.

Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1 Q1	0.0095	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the target analyte(s) was not detected in the sample, the data is reported.
The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following action was taken:
The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

REVISED

Sample Description: **C-134D_20191029 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/29/2019 13:45

Evergreen c/o Stantec
ELLE Sample #: GW 1189913
ELLE Group #: 2072152
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193125AA	11/09/2019 03:45	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193125AA	11/09/2019 03:44	Kevin A Sposito	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19309WAB026	11/10/2019 05:56	Holly B Ziegler	1
07807	BNA Water Extraction	SW-846 3510C	1	19309WAB026	11/05/2019 17:32	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193060001A	11/07/2019 06:34	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193060001A	11/04/2019 08:00	Logan M Brosemer	1
06035	Lead	SW-846 6020	1	193091404704A	11/06/2019 15:31	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193091404704	11/05/2019 13:25	JoElla L Rice	1

REVISED

Sample Description: DUP-2_20191029 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/29/2019

Evergreen c/o Stantec
ELLE Sample #: GW 1189914
ELLE Group #: 2072152
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	33	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D. Q0	0.1	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. No further action was taken.

Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1 Q1	0.0094	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the target analyte(s) was not detected in the sample, the data is reported.
The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following action was taken:
The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

REVISED

Sample Description: **DUP-2_20191029 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/29/2019

Evergreen c/o Stantec
ELLE Sample #: GW 1189914
ELLE Group #: 2072152
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193125AA	11/09/2019 04:07	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193125AA	11/09/2019 04:06	Kevin A Sposito	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19309WAB026	11/10/2019 06:25	Holly B Ziegler	1
07807	BNA Water Extraction	SW-846 3510C	1	19309WAB026	11/05/2019 17:32	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193060001A	11/07/2019 06:50	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193060001A	11/04/2019 08:00	Logan M Brosemer	1
06035	Lead	SW-846 6020	1	193091404704A	11/06/2019 15:30	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193091404704	11/05/2019 13:25	JoElla L Rice	1

REVISED

Sample Description: **Trip Blank Water**
2019 Q4 GWS PHL

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 10/30/2019 17:44
Collection Date/Time: 10/30/2019

Evergreen c/o Stantec
ELLE Sample #: GW 1189915
ELLE Group #: 2072152
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1

The requirement for no headspace at the time of analysis was not met. The container used for the testing had headspace at the time of analysis.

Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1 Q1	0.0095	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the target analyte(s) was not detected in the sample, the data is reported.
The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following action was taken:
The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F193126AA	11/08/2019 22:24	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193126AA	11/08/2019 22:23	Kevin A Sposito	1
10398	EDB in Wastewater	SW-846 8011	1	193060001A	11/07/2019 07:06	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193060001A	11/04/2019 08:00	Logan M Brosemer	1

REVISED

Quality Control Summary

Client Name: Evergreen c/o Stantec Group Number: 2072152
Reported: 01/02/2020 11:59

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	ug/l	ug/l
Batch number: F193111AA	Sample number(s): 1189887-1189888	
Benzene	N.D.	0.2
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.8
Batch number: F193115AA	Sample number(s): 1189889,1189893,1189897-1189898,1189907	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.8
Batch number: F193121AA	Sample number(s): 1189891-1189892,1189908-1189910	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.8
Batch number: F193122AA	Sample number(s): 1189894-1189896,1189899-1189904	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

REVISED

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 01/02/2020 11:59

Group Number: 2072152

Method Blank (continued)

Analysis Name	Result	MDL
	ug/l	ug/l
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.8
Batch number: F193125AA	Sample number(s): 1189890,1189905-1189906,1189911-1189914	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.8
Batch number: F193126AA	Sample number(s): 1189908,1189915	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.8
Batch number: F193152AA	Sample number(s): 1189905	
t-Butyl alcohol	N.D.	10
Batch number: 19305WAD026	Sample number(s): 1189887-1189889,1189891-1189898	
Anthracene	N.D.	0.1
Benzo(a)anthracene	N.D.	0.1
Benzo(a)pyrene	N.D.	0.1
Benzo(b)fluoranthene	N.D.	0.1
Benzo(g,h,i)perylene	N.D.	0.1
Chrysene	N.D.	0.1
Fluorene	N.D.	0.1
Naphthalene	N.D.	0.1
Phenanthrene	N.D.	0.1
Pyrene	N.D.	0.1
Batch number: 19306WAA026	Sample number(s): 1189890,1189899-1189912	
Anthracene	N.D.	0.1

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REVISED

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 01/02/2020 11:59

Group Number: 2072152

Method Blank (continued)

Analysis Name	Result	MDL
	ug/l	ug/l
Benzo(a)anthracene	N.D.	0.1
Benzo(a)pyrene	N.D.	0.1
Benzo(b)fluoranthene	N.D.	0.1
Benzo(g,h,i)perylene	N.D.	0.1
Chrysene	N.D.	0.1
Fluorene	N.D.	0.1
Naphthalene	N.D.	0.1
Phenanthrene	N.D.	0.1
Pyrene	N.D.	0.1
Batch number: 19309WAB026	Sample number(s): 1189913-1189914	
Anthracene	N.D.	0.1
Benzo(a)anthracene	N.D.	0.1
Benzo(a)pyrene	N.D.	0.1
Benzo(b)fluoranthene	N.D.	0.1
Benzo(g,h,i)perylene	N.D.	0.1
Chrysene	N.D.	0.1
Fluorene	N.D.	0.1
Naphthalene	N.D.	0.1
Phenanthrene	N.D.	0.1
Pyrene	N.D.	0.1
Batch number: 193050023A	Sample number(s): 1189887-1189906	
Ethylene dibromide	N.D.	0.010
Batch number: 193060001A	Sample number(s): 1189907-1189915	
Ethylene dibromide	N.D.	0.010
Batch number: 193091404703A	Sample number(s): 1189887-1189894,1189896-1189897,1189901-1189903,1189906	
Lead	N.D.	0.071
Batch number: 193091404704A	Sample number(s): 1189895,1189899-1189900,1189904,1189907-1189914	
Lead	N.D.	0.071
Batch number: 193091404705A	Sample number(s): 1189898,1189905	
Lead	N.D.	0.071

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F193111AA	Sample number(s): 1189887-1189888								
Benzene	20	18.74	20	18.01	94	90	80-120	4	30
1,2-Dichloroethane	20	18.97	20	18.14	95	91	73-124	4	30

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REVISED

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 01/02/2020 11:59

Group Number: 2072152

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Ethylbenzene	20	18.73	20	17.88	94	89	80-120	5	30
Isopropylbenzene	20	18.11	20	17.75	91	89	80-120	2	30
Methyl Tertiary Butyl Ether	20	19.2	20	17.98	96	90	69-122	7	30
Toluene	20	18.32	20	17.7	92	88	80-120	3	30
1,2,4-Trimethylbenzene	20	18.4	20	17.42	92	87	75-120	5	30
1,3,5-Trimethylbenzene	20	18.45	20	17.52	92	88	75-120	5	30
Xylene (Total)	60	55.3	60	53.15	92	89	80-120	4	30
Batch number: F193115AA	Sample number(s): 1189889,1189893,1189897-1189898,1189907								
Benzene	20	17.32			87		80-120		
t-Butyl alcohol	200	155.16			78		60-130		
1,2-Dichloroethane	20	17.65			88		73-124		
Ethylbenzene	20	16.43			82		80-120		
Isopropylbenzene	20	16.47			82		80-120		
Methyl Tertiary Butyl Ether	20	18.52			93		69-122		
Toluene	20	16.99			85		80-120		
1,2,4-Trimethylbenzene	20	16.52			83		75-120		
1,3,5-Trimethylbenzene	20	16.77			84		75-120		
Xylene (Total)	60	49.96			83		80-120		
Batch number: F193121AA	Sample number(s): 1189891-1189892,1189908-1189910								
Benzene	20	19.95	20	19.34	100	97	80-120	3	30
t-Butyl alcohol	200	185.58	200	174.76	93	87	60-130	6	30
1,2-Dichloroethane	20	19.61	20	19.23	98	96	73-124	2	30
Ethylbenzene	20	19.5	20	18.76	97	94	80-120	4	30
Isopropylbenzene	20	19.02	20	18.37	95	92	80-120	3	30
Methyl Tertiary Butyl Ether	20	20.1	20	19.5	100	98	69-122	3	30
Toluene	20	19.26	20	18.64	96	93	80-120	3	30
1,2,4-Trimethylbenzene	20	19.1	20	18.72	95	94	75-120	2	30
1,3,5-Trimethylbenzene	20	19.2	20	18.72	96	94	75-120	3	30
Xylene (Total)	60	57.64	60	55.67	96	93	80-120	3	30
Batch number: F193122AA	Sample number(s): 1189894-1189896,1189899-1189904								
Benzene	20	19.13	20	19.38	96	97	80-120	1	30
t-Butyl alcohol	200	171.22	200	171.88	86	86	60-130	0	30
1,2-Dichloroethane	20	19.29	20	19.38	96	97	73-124	0	30
Ethylbenzene	20	18.54	20	18.86	93	94	80-120	2	30
Isopropylbenzene	20	18.45	20	18.66	92	93	80-120	1	30
Methyl Tertiary Butyl Ether	20	20.3	20	20.36	102	102	69-122	0	30
Toluene	20	18.64	20	18.95	93	95	80-120	2	30
1,2,4-Trimethylbenzene	20	18.42	20	18.78	92	94	75-120	2	30
1,3,5-Trimethylbenzene	20	18.93	20	18.96	95	95	75-120	0	30
Xylene (Total)	60	55.45	60	55.98	92	93	80-120	1	30
Batch number: F193125AA	Sample number(s): 1189890,1189905-1189906,1189911-1189914								

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REVISED

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 01/02/2020 11:59

Group Number: 2072152

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Benzene	20	18.18	20	18.26	91	91	80-120	0	30
t-Butyl alcohol	200	169.45	200	171.73	85	86	60-130	1	30
1,2-Dichloroethane	20	18.51	20	18.5	93	92	73-124	0	30
Ethylbenzene	20	18.13	20	18.09	91	90	80-120	0	30
Isopropylbenzene	20	17.45	20	17.69	87	88	80-120	1	30
Methyl Tertiary Butyl Ether	20	18.38	20	18.43	92	92	69-122	0	30
Toluene	20	17.67	20	17.6	88	88	80-120	0	30
1,2,4-Trimethylbenzene	20	17.68	20	17.89	88	89	75-120	1	30
1,3,5-Trimethylbenzene	20	17.4	20	17.75	87	89	75-120	2	30
Xylene (Total)	60	53.48	60	53.49	89	89	80-120	0	30
Batch number: F193126AA	Sample number(s): 1189908,1189915								
Benzene	20	18.2	20	17.94	91	90	80-120	1	30
t-Butyl alcohol	200	166.01	200	163.98	83	82	60-130	1	30
1,2-Dichloroethane	20	18.52	20	18.48	93	92	73-124	0	30
Ethylbenzene	20	17.48	20	16.97	87	85	80-120	3	30
Isopropylbenzene	20	17.44	20	16.9	87	85	80-120	3	30
Methyl Tertiary Butyl Ether	20	19.45	20	19.06	97	95	69-122	2	30
Toluene	20	17.78	20	17.71	89	89	80-120	0	30
1,2,4-Trimethylbenzene	20	17.65	20	16.94	88	85	75-120	4	30
1,3,5-Trimethylbenzene	20	17.68	20	17.06	88	85	75-120	4	30
Xylene (Total)	60	51.85	60	51.57	86	86	80-120	1	30
Batch number: F193152AA	Sample number(s): 1189905								
t-Butyl alcohol	200	181.72	200	182.99	91	91	60-130	1	30
	ug/l	**ug/l**	**ug/l**	**ug/l**					
Batch number: 19305WAD026	Sample number(s): 1189887-1189889,1189891-1189898								
Anthracene	50	41.03	50	43.75	82	88	62-116	6	30
Benzo(a)anthracene	50	44.56	50	48.22	89	96	70-118	8	30
Benzo(a)pyrene	50	41.34	50	44.88	83	90	71-117	8	30
Benzo(b)fluoranthene	50	44.66	50	47.85	89	96	71-115	7	30
Benzo(g,h,i)perylene	50	47.61	50	51.26	95	103	60-119	7	30
Chrysene	50	42.47	50	45.86	85	92	69-116	8	30
Fluorene	50	38.18	50	38.75	76	78	56-115	1	30
Naphthalene	50	34.36	50	35.26	69	71	45-105	3	30
Phenanthrene	50	41.28	50	44.11	83	88	65-113	7	30
Pyrene	50	41.12	50	43.26	82	87	65-115	5	30
Batch number: 19306WAA026	Sample number(s): 1189890,1189899-1189912								
Anthracene	50	47.42	50	42.82	95	86	62-116	10	30
Benzo(a)anthracene	50	48.48	50	46.92	97	94	70-118	3	30
Benzo(a)pyrene	50	46.5	50	46.51	93	93	71-117	0	30
Benzo(b)fluoranthene	50	45.84	50	46.5	92	93	71-115	1	30
Benzo(g,h,i)perylene	50	45.59	50	46.33	91	93	60-119	2	30

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REVISED

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 01/02/2020 11:59

Group Number: 2072152

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Chrysene	50	44.49	50	43.5	89	87	69-116	2	30
Fluorene	50	42.95	50	41.71	86	83	56-115	3	30
Naphthalene	50	37.77	50	37.34	76	75	45-105	1	30
Phenanthrene	50	46.78	50	44.79	94	90	65-113	4	30
Pyrene	50	44.55	50	43.02	89	86	65-115	3	30
Batch number: 19309WAB026	Sample number(s): 1189913-1189914								
Anthracene	50	40.29			81		62-116		
Benzo(a)anthracene	50	37.94			76		70-118		
Benzo(a)pyrene	50	35.87			72		71-117		
Benzo(b)fluoranthene	50	37.19			74		71-115		
Benzo(g,h,i)perylene	50	33.39			67		60-119		
Chrysene	50	36.8			74		69-116		
Fluorene	50	30			60		56-115		
Naphthalene	50	27.12			54		45-105		
Phenanthrene	50	40.71			81		65-113		
Pyrene	50	32.05			64*		65-115		
	ug/l	ug/l	ug/l	ug/l					
Batch number: 193050023A	Sample number(s): 1189887-1189906								
Ethylene dibromide	0.128	0.149	0.128	0.150	117	117	60-140	1	20
Batch number: 193060001A	Sample number(s): 1189907-1189915								
Ethylene dibromide	0.128	0.211	0.128	0.206	165*	161*	60-140	2	20
	ug/l	ug/l	ug/l	ug/l					
Batch number: 193091404703A	Sample number(s): 1189887-1189894,1189896-1189897,1189901-1189903,1189906								
Lead	5.00	5.32			106		90-110		
Batch number: 193091404704A	Sample number(s): 1189895,1189899-1189900,1189904,1189907-1189914								
Lead	5.00	5.14			103		90-110		
Batch number: 193091404705A	Sample number(s): 1189898,1189905								
Lead	5.00	5.15			103		90-110		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: F193111AA	Sample number(s): 1189887-1189888 UNSPK: P187853									

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REVISED

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 01/02/2020 11:59

Group Number: 2072152

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Benzene	N.D.	20	19.07	20	19.22	95	96	80-120	1	30
1,2-Dichloroethane	N.D.	20	19.14	20	18.78	96	94	73-124	2	30
Ethylbenzene	N.D.	20	18.69	20	18.78	93	94	80-120	0	30
Isopropylbenzene	N.D.	20	18.78	20	18.65	94	93	80-120	1	30
Methyl Tertiary Butyl Ether	N.D.	20	18.53	20	18.81	93	94	69-122	2	30
Toluene	N.D.	20	18.51	20	18.55	93	93	80-120	0	30
1,2,4-Trimethylbenzene	N.D.	20	18.28	20	18.08	91	90	75-120	1	30
1,3,5-Trimethylbenzene	N.D.	20	18.3	20	18.35	91	92	75-120	0	30
Xylene (Total)	N.D.	60	56	60	55.61	93	93	80-120	1	30
Batch number: F193115AA	Sample number(s): 1189889,1189893,1189897-1189898,1189907 UNSPK: P189056									
Benzene	0.260	20	19.3	20	19.28	95	95	80-120	0	30
t-Butyl alcohol	104.33	200	274.95	200	270.7	85	83	60-130	2	30
1,2-Dichloroethane	N.D.	20	18.71	20	19.09	94	95	73-124	2	30
Ethylbenzene	N.D.	20	18.4	20	18.45	92	92	80-120	0	30
Isopropylbenzene	N.D.	20	18.22	20	18.7	91	93	80-120	3	30
Methyl Tertiary Butyl Ether	4.13	20	24.57	20	24.54	102	102	69-122	0	30
Toluene	N.D.	20	18.77	20	18.64	94	93	80-120	1	30
1,2,4-Trimethylbenzene	N.D.	20	18.18	20	18.39	91	92	75-120	1	30
1,3,5-Trimethylbenzene	N.D.	20	18.61	20	18.44	93	92	75-120	1	30
Xylene (Total)	N.D.	60	55.71	60	56.39	93	94	80-120	1	30
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 19309WAB026	Sample number(s): 1189913-1189914 UNSPK: P191243									
Anthracene	N.D.	50.4	49.21	52.97	52.58	98	99	62-112	7	30
Benzo(a)anthracene	N.D.	50.4	49.2	52.97	51.64	98	97	70-118	5	30
Benzo(a)pyrene	N.D.	50.4	45.67	52.97	48.37	91	91	71-117	6	30
Benzo(b)fluoranthene	N.D.	50.4	47.38	52.97	52.3	94	99	71-115	10	30
Benzo(g,h,i)perylene	N.D.	50.4	39.47	52.97	44.6	78	84	60-119	12	30
Chrysene	N.D.	50.4	47.01	52.97	47.97	93	91	69-116	2	30
Fluorene	N.D.	50.4	34.81	52.97	38.32	69	72	56-115	10	30
Naphthalene	0.262	50.4	31.72	52.97	32.04	62	60	45-105	1	30
Phenanthrene	N.D.	50.4	48.46	52.97	52.97	96	100	65-113	9	30
Pyrene	N.D.	50.4	41.15	52.97	42.59	82	80	65-115	3	30
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 193050023A	Sample number(s): 1189887-1189906 UNSPK: 1189888									
Ethylene dibromide	N.D.	0.122	0.151			123		60-140		
Batch number: 193060001A	Sample number(s): 1189907-1189915 UNSPK: 1189907									
Ethylene dibromide	N.D.	0.119	0.209			175*		60-140		
	ug/l	ug/l	ug/l	ug/l	ug/l					

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REVISED

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 01/02/2020 11:59

Group Number: 2072152

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 193091404703A	Sample number(s): 1189887-1189894,1189896-1189897,1189901-1189903,1189906 UNSPK: P189785									
Lead	N.D.	5.00	5.37	5.00	5.38	107	108	75-125	0	20
Batch number: 193091404704A	Sample number(s): 1189895,1189899-1189900,1189904,1189907-1189914 UNSPK: 1189899									
Lead	N.D.	5.00	5.07	5.00	5.22	101	104	75-125	3	20
Batch number: 193091404705A	Sample number(s): 1189898,1189905 UNSPK: P190187									
Lead	0.263	5.00	5.40	5.00	5.64	103	108	88-115	4	20

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc ug/l	DUP Conc ug/l	DUP RPD	DUP RPD Max
Batch number: 193050023A	Sample number(s): 1189887-1189906 BKG: 1189889			
Ethylene dibromide	N.D.	N.D.	0 (1)	30
Batch number: 193060001A	Sample number(s): 1189907-1189915 BKG: 1189908			
Ethylene dibromide	N.D.	N.D.	0 (1)	30
	ug/l	ug/l		
Batch number: 193091404703A	Sample number(s): 1189887-1189894,1189896-1189897,1189901-1189903,1189906 BKG: P189785			
Lead	N.D.	N.D.	0 (1)	20
Batch number: 193091404704A	Sample number(s): 1189895,1189899-1189900,1189904,1189907-1189914 BKG: 1189899			
Lead	N.D.	N.D.	0 (1)	20
Batch number: 193091404705A	Sample number(s): 1189898,1189905 BKG: P190187			
Lead	0.263	0.265	1 (1)	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX/MTBE/Cumene/EDC/TMBs
Batch number: F193111AA

*- Outside of specification
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P####### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

REVISED

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 01/02/2020 11:59

Group Number: 2072152

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX/MTBE/Cumene/EDC/TMBs
Batch number: F193111AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1189887	100	93	99	97
1189888	101	95	101	98
Blank	101	95	100	95
LCS	101	99	100	98
LCSD	99	101	100	98
MS	100	98	101	98
MSD	101	99	101	96
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: F193115AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1189889	100	98	99	96
1189893	99	93	98	99
1189897	99	96	101	98
1189898	100	95	100	98
1189907	100	96	99	98
Blank	98	96	99	93
LCS	102	102	100	96
MS	100	100	99	95
MSD	101	98	97	95
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: F193121AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1189891	100	95	99	96
1189892	98	93	101	102
1189908	97	94	101	98
1189909	100	94	101	106
1189910	98	95	100	98
Blank	99	95	101	95
LCS	100	97	101	97
LCSD	101	97	100	97
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: F193122AA

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

REVISED

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 01/02/2020 11:59

Group Number: 2072152

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: F193122AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1189894	98	96	100	98
1189895	98	95	99	97
1189896	96	91	99	101
1189899	100	95	99	96
1189900	99	95	100	97
1189901	98	94	100	98
1189902	100	94	100	105
1189903	98	93	99	97
1189904	95	90	100	95
Blank	99	94	100	96
LCS	100	98	99	98
LCSD	99	97	100	99
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: F193125AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1189890	98	95	100	99
1189905	97	95	102	110
1189906	99	94	101	99
1189911	98	95	102	98
1189912	98	92	100	97
1189913	99	95	100	98
1189914	96	91	100	96
Blank	99	96	99	96
LCS	98	98	101	99
LCSD	98	93	100	97
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TMBs
Batch number: F193126AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1189915	99	93	98	96
Blank	99	94	98	94
LCS	100	97	99	96
LCSD	97	98	99	98
Limits:	80-120	80-120	80-120	80-120

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

REVISED

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 01/02/2020 11:59

Group Number: 2072152

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PAHs 8270C MINI
Batch number: 19305WAD026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
1189887	58	68	58
1189888	70	66	52
1189889	66	63	49
1189891	60	60	51
1189892	66	56	53
1189893	86	73	63
1189894	72	74	60
1189895	82	76	64
1189896	74	65	53
1189897	95	71	55
1189898	83	59	61
Blank	76	70	73
LCS	74	64	77
LCSD	77	67	79
Limits:	33-113	44-102	39-125

Analysis Name: PAHs 8270C MINI
Batch number: 19306WAA026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
1189890	63	71	59
1189899	68	84	68
1189900	55	71	69
1189901	61	75	58
1189902	62	75	52
1189903	55	66	51
1189904	61	76	59
1189905	58	67	68
1189906	50	64	50
1189907	59	68	57
1189908	60	71	48
1189909	57	67	51
1189910	62	73	63
1189911	66	74	56
1189912	51	67	59
Blank	66	73	73
LCS	74	81	81
LCSD	72	79	78
Limits:	33-113	44-102	39-125

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

REVISED

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 01/02/2020 11:59

Group Number: 2072152

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PAHs 8270C MINI
Batch number: 19309WAB026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
1189913	75	47	60
1189914	78	46	66
Blank	96	65	73
LCS	80	51	61
MS	92	56	69
MSD	86	57	63
Limits:	33-113	44-102	39-125

Analysis Name: EDB in Wastewater
Batch number: 193050023A

	1,1,2,2-Tetrachloroethane-D1	1,1,2,2-Tetrachloroethane-D2
1189887	94	115
1189888	102	106
1189889	100	117
1189890	97	103
1189891	103	128
1189892	112	157*
1189893	104	131
1189894	145*	141*
1189895	94	155*
1189896	125	642*
1189897	95	97
1189898	95	93
1189899	95	98
1189900	97	104
1189901	98	93
1189902	96	97
1189903	107	119
1189904	92	99
1189905	111	107
1189906	94	98
Blank	87	90
DUP	98	111
LCS	86	85
LCSD	86	82
MS	93	100
Limits:	46-136	46-136

Analysis Name: EDB in Wastewater
Batch number: 193060001A

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

REVISED

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 01/02/2020 11:59

Group Number: 2072152

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: EDB in Wastewater
Batch number: 193060001A

	1,1,2,2-Tetrachloroethane-D1	1,1,2,2-Tetrachloroethane-D2
1189907	109	154*
1189908	91	86
1189909	91	95
1189910	95	104
1189911	90	102
1189912	87	94
1189913	88	85
1189914	85	96
1189915	81	86
Blank	70	73
DUP	88	88
LCS	64	66
LCSD	70	70
MS	87	137*
Limits:	46-136	46-136

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Environmental Analysis Request/Chain of Custody

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Acct. # 16657 Group # 2072152 Sample # 1189887-915

COC # 593688

Client Information

Client: Stantec	Acct. #: Evergreen C/O 16657 Stantec
Project Name/#: 2019 Semi Annual GWS PHL	PWSID #:
Project Manager: Jennifer Menges	P.O. #: 213402429
Sampler: Doulton Campbell + Ian Andree	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: ____

Analysis Requested — Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Water	Other	Total # of Containers	Evergreen VOC 8260 (H)	EDB 8011 (H)	Dissolved lead (FF)	PAH 8270 (N)	TBA 8260 (N)						Remarks
N-2_20191025	10/25	1145	X			X		8	X	X	X	X							Dissolved lead field filtered TBA cist Attached to Samples
N-3_20191025	10/25	1330	X			X		8	X	X	X	X							
N-156_20191028	10/28	1335	X			X		8	X	X	X	X							
PGW-MW-6_20191029	10/29	1110	X			X		8	X	X	X	X							
PGW-MW-21_20191029	10/29	1255	X			X		8	X	X	X	X							
RW-701_20191028	10/28	1326	X			X		8	X	X	X	X	X						
RW-708_20191028	10/28	1240	X			X		8	X	X	X	X	X						
RW-715_20191028	10/28	1005	X			X		8	X	X	X	X	X						
S-38_20191028	10/28	1123	X			X		8	X	X	X	X	X						
RW-703_20191029	10/29	1001	X			X		8	X	X	X	X	X						

For Lab Use Only
FSC: ____
SCR#: ____

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: ____

E-mail address: Jennifer.Menges@Stantec.com

Relinquished by	Date	Time	Received by	Date	Time
			[signature]	10/30/19	12:30
			[signature]	10-30-19	1744

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

EDD Required? Yes No
If yes, format: EQUIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other ____

Temperature upon receipt 0.4-1.0 °C

Environmental Analysis Request/Chain of Custody

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Acct. # 116657 Group # 2072152 Sample # 1189887-915

COC #593685

Client Information

Client: STANTEC	Acct. #: EVERGREEN c/o STANTEC 16657
Project Name/#: 2019 GWS PHC	PWSID #:
Project Manager: Jennifer Menges	P.O. #: 213402429
Sampler: ALAINA SIMONS & Ian Andree	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water ☒ Potable ☐ Ground ☐ NPDES ☐ Surface ☐ | Other: ____

Analysis Requested — Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	EVERGREEN VOC 8260 (H)	EDB 8011 (H)	DISSOLVED LEAD (FIELD FILTERED) (N)	PAH 6270	TBA 8260 (H)
S-13-20191028	10/28/19	1120	X		8	X	X	X	X	X
S-284D-20191028	10/28/19	1320	X		8	X	X	X	X	X
S-411-20191029	10/29/19	1240	X		8	X	X	X	X	X
S-280D-20191029	10/29/19	0945	X		8	X	X	X	X	X
S-69D-20191029	10/29/19	1120	X		8	X	X	X	X	X
S-20-20191029	10/29/19	1400	X		8	X	X	X	X	X
S-50-20191029	10/29	1130	X		8	X	X	X	X	X
S-230-20191029	10/29	1300	X		8	X	X	X	X	X
S-44-20191029	10/29	1350	X		8	X	X	X	X	X
~~S-422-20191030~~	10/29	1020	X		8	X	X	X	X	X

For Lab Use Only

FSC: _____

SCR#: _____

Preservation Codes

H=HCl	T=Thiosulfate
N=HNO_3	B=NaOH
S=H_2SO_4	P=H_3PO_4
F=Field Filtered	O=Other

Remarks

* LEAD FIELD FILTERED
* FOR LIST OF ANALYTES REFER TO ATTACHED EVERGREEN ACCRED LIST

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: JENNIFER.MENGES@STANTEC.COM

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)

Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13

NYSDEC Category A or B | MA MCP | CT RCP

	Date	Time		Date	Time
Relinquished by	10/30/19	1230	Received by	10/31/19	1130
Relinquished by			Received by		
Relinquished by			Received by		
Relinquished by			Received by		
Relinquished by			Received by	10/31/19	1130

EDD Required? Yes No

If yes, format: EQUIS

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt 3.4 / 1.6 °C

Environmental Analysis Request/Chain of Custody

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Acct. # 16657 Group # 2072152 Sample # 1189887-915

COC # 593686

Client Information

Client: Stantec	Acct. #: Evergreen c/o 16657 Stantec
Project Name/#: PHL 2019 Q4 GWS	PWSID #:
Project Manager: Jennifer Menges	P.O. #: 213402429
Sampler: Dana Hoblitzell	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: ____

Analysis Requested — Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Water	Other	Total # of Containers	Evergreen VOC 8260 (H)	EDB 8011 (H)	Dissolved Lead (Field Filtered) (N)	PAH 8270	TBA 8260 (H)					
N-75_20191028	10/28/19	1010	X			X		8	X	X	X	X						
S-87I_20191028	10/28/19	1115	X			X		8	X	X	X	X	X					
S-399_20191028	10/28/19	1235	X			X		8	X	X	X	X	X					
S-38D2_20191028	10/28/19	1405	X			X		8	X	X	X	X	X					
S-39D_20191029	10/29/19	1010	X			X		8	X	X	X	X	X					
S-218D_20191029	10/29/19	1205	X			X		8	X	X	X	X	X					
C-134D_20191029	10/29/19	1345	X			X		8	X	X	X	X	X					
DUP-2_20191029	10/29/19	—	X			X		8	X	X	X	X	X					
Trip Blank	10/30/19	—	X			X		2	X	X	[illegible]	[illegible]						

For Lab Use Only
FSC: ____
SCR#: ____

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks
* Lead Field Filtered
* For list of analytes refer to attached Evergreen short list

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: ____

E-mail address: Jennifer.Menges@Stantec.com

Relinquished by	Date	Time	Received by	Date	Time
[signature]	10/30/19	10/3/19	[signature]	10/30/19	12:30
			[signature]	10/30/19	1744

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

EDD Required? Yes No
If yes, format: EQuis

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:
UPS ____ FedEx ____ Other ____

Temperature upon receipt 0.4/.0 °C

2072152

Table 1
Evergreen Petroleum Short List of Constituents of Concern

VOCs by EPA Method 8260	CAS No.
Benzene	71-43-2
Cumene	98-82-8
Dichloroethane, 1,2-	107-06-2
Ethylbenzene	100-41-4
Ethylene Dibromide*	106-93-4
Methyl tert butyl ether	1634-04-4
Toluene	108-88-3
Trimethylbenzene, 1,2,4-	95-63-6
Trimethylbenzene, 1,3,5-	108-67-8
Xylenes	1330-20-7

SVOCs by EPA Method 8270	CAS No.
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Chrysene	218-01-9
Fluorene	86-73-7
Naphthalene**	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Metals by Method 6010/6020	CAS No.
Lead***	7439-92-1

*Ethylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

**Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

***Metals analysis should be total in soil and dissolved in groundwater.

This list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline and No. 1, 2, 4, 5, 6 Fuel Oils).

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Sample Administration Receipt Documentation Log

Doc Log ID: 264800

Group Number(s): 2072152

Client: Stantec

Delivery and Receipt Information

Delivery Method:	ELLE Courier	Arrival Date:	10/30/2019
Number of Packages:	3	Number of Projects:	3
State/Province of Origin:	PA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	No	Total Trip Blank Qty:	2
Paperwork Enclosed:	Yes	Trip Blank Type:	HCl
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Melvin Sanchez

2425 New Holland Pike
Lancaster, PA 17605-2425
T 717-656-2300
F 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report
B	Detection in the Method Blank
Q0	LCS/LCSD Low
Q1	LCS/LCSD High
Q2	MS/MSD Low
Q3	MS/MSD High
Q7	LCS/LCSD RPD
Q8	DUP RPD
Q9	MS/MSD RPD

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

Report Date: November 13, 2019 12:35

Project: 2019 Q4 GWS PHL

Account #: 16657
Group Number: 2072376
PO Number: 213402429
State of Sample Origin: PA

Electronic Copy To	Evergreen c/o Stantec	Attn: Jennifer Menges
Electronic Copy To	Evergreen c/o Stantec	Attn: Andrew Bradley

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
C-144D_20191030 Grab Groundwater	10/30/2019 11:25	1190928
C-129D_20191030 Grab Groundwater	10/30/2019 13:20	1190929
A-19D_20191030 Grab Groundwater	10/30/2019 14:30	1190930

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Sample Description: C-144D_20191030 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 11/01/2019 16:49
Collection Date/Time: 10/30/2019 11:25

Evergreen c/o Stantec
ELLE Sample #: GW 1190928
ELLE Group #: 2072376
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D. Q0	0.1	1
	The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. No further action was taken.				
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/TMBs	SW-846 8260B	1	F193132AA	11/10/2019 02:47	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193132AA	11/10/2019 02:46	Sara E Johnson	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19309WAB026	11/10/2019 18:25	William H Saadeh	1
07807	BNA Water Extraction	SW-846 3510C	1	19309WAB026	11/05/2019 17:32	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193080022A	11/08/2019 15:59	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193080022A	11/05/2019 03:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193091404706A	11/08/2019 22:39	Bradley M Berlot	1

Sample Description: **C-144D_20191030 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/01/2019 16:49
Collection Date/Time: 10/30/2019 11:25

Evergreen c/o Stantec
ELLE Sample #: GW 1190928
ELLE Group #: 2072376
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193091404706	11/06/2019 13:35	JoElla L Rice	1

Sample Description: C-129D_20191030 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 11/01/2019 16:49
Collection Date/Time: 10/30/2019 13:20

Evergreen c/o Stantec
ELLE Sample #: GW 1190929
ELLE Group #: 2072376
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	120	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	0.2 J Q0	0.1	1
	The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. No further action was taken.				
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/TMBs	SW-846 8260B	1	F193132AA	11/10/2019 03:09	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193132AA	11/10/2019 03:08	Sara E Johnson	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19309WAB026	11/10/2019 18:54	William H Saadeh	1
07807	BNA Water Extraction	SW-846 3510C	1	19309WAB026	11/05/2019 17:32	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193080022A	11/08/2019 16:14	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193080022A	11/05/2019 03:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193091404706A	11/08/2019 22:37	Bradley M Berlot	1

Sample Description: **C-129D_20191030 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/01/2019 16:49
Collection Date/Time: 10/30/2019 13:20

Evergreen c/o Stantec
ELLE Sample #: GW 1190929
ELLE Group #: 2072376
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193091404706	11/06/2019 13:35	JoElla L Rice	1

Sample Description: **A-19D_20191030 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/01/2019 16:49
Collection Date/Time: 10/30/2019 14:30

Evergreen c/o Stantec
ELLE Sample #: GW 1190930
ELLE Group #: 2072376
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	560	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	58	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D. Q0	0.1	1
	The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. No further action was taken.				
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193132AA	11/10/2019 03:32	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193132AA	11/10/2019 03:31	Sara E Johnson	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19309WAB026	11/10/2019 19:22	William H Saadeh	1
07807	BNA Water Extraction	SW-846 3510C	1	19309WAB026	11/05/2019 17:32	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193080022A	11/08/2019 16:46	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193080022A	11/05/2019 03:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193091404708A	11/10/2019 22:03	Huyen Dao-Kendig	1

Sample Description: **A-19D_20191030 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/01/2019 16:49
Collection Date/Time: 10/30/2019 14:30

Evergreen c/o Stantec
ELLE Sample #: GW 1190930
ELLE Group #: 2072376
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193091404708	11/07/2019 03:34	James L Mertz	1

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Quality Control Summary

Client Name: Evergreen c/o Stantec
Group Number: 2072376
Reported: 11/13/2019 12:35

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	ug/l	ug/l
Batch number: F193132AA	Sample number(s): 1190928-1190930	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.8
Batch number: 19309WAB026	Sample number(s): 1190928-1190930	
Anthracene	N.D.	0.1
Benzo(a)anthracene	N.D.	0.1
Benzo(a)pyrene	N.D.	0.1
Benzo(b)fluoranthene	N.D.	0.1
Benzo(g,h,i)perylene	N.D.	0.1
Chrysene	N.D.	0.1
Fluorene	N.D.	0.1
Naphthalene	N.D.	0.1
Phenanthrene	N.D.	0.1
Pyrene	N.D.	0.1
Batch number: 193080022A	Sample number(s): 1190928-1190930	
Ethylene dibromide	N.D.	0.010
Batch number: 193091404706A	Sample number(s): 1190928-1190929	
Lead	N.D.	0.071
Batch number: 193091404708A	Sample number(s): 1190930	
Lead	N.D.	0.071

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

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Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 11/13/2019 12:35

Group Number: 2072376

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F193132AA	Sample number(s): 1190928-1190930								
Benzene	20	18.62	20	18.44	93	92	80-120	1	30
t-Butyl alcohol	200	171.53	200	169.23	86	85	60-130	1	30
1,2-Dichloroethane	20	18.55	20	18.69	93	93	73-124	1	30
Ethylbenzene	20	17.97	20	17.93	90	90	80-120	0	30
Isopropylbenzene	20	17.77	20	17.68	89	88	80-120	1	30
Methyl Tertiary Butyl Ether	20	19.48	20	19.61	97	98	69-122	1	30
Toluene	20	18.38	20	18.28	92	91	80-120	1	30
1,2,4-Trimethylbenzene	20	18.16	20	17.98	91	90	75-120	1	30
1,3,5-Trimethylbenzene	20	18.21	20	18.16	91	91	75-120	0	30
Xylene (Total)	60	53.97	60	53.45	90	89	80-120	1	30
	ug/l	**ug/l**	**ug/l**	**ug/l**					
Batch number: 19309WAB026	Sample number(s): 1190928-1190930								
Anthracene	50	40.29			81		62-116		
Benzo(a)anthracene	50	37.94			76		70-118		
Benzo(a)pyrene	50	35.87			72		71-117		
Benzo(b)fluoranthene	50	37.19			74		71-115		
Benzo(g,h,i)perylene	50	33.39			67		60-119		
Chrysene	50	36.8			74		69-116		
Fluorene	50	30			60		56-115		
Naphthalene	50	27.12			54		45-105		
Phenanthrene	50	40.71			81		65-113		
Pyrene	50	32.05			64*		65-115		
	ug/l	**ug/l**	**ug/l**	**ug/l**					
Batch number: 193080022A	Sample number(s): 1190928-1190930								
Ethylene dibromide	0.128	0.147	0.128	0.154	115	120	60-140	5	20
	ug/l	**ug/l**	**ug/l**	**ug/l**					
Batch number: 193091404706A	Sample number(s): 1190928-1190929								
Lead	5.00	5.07			101		90-110		
Batch number: 193091404708A	Sample number(s): 1190930								
Lead	5.00	5.50			110		90-110		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc	MS Spike Added	MS Conc	MSD Spike Added	MSD Conc	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 11/13/2019 12:35

Group Number: 2072376

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 19309WAB026	Sample number(s): 1190928-1190930 UNSPK: P191243									
Anthracene	N.D.	50.4	49.21	52.97	52.58	98	99	62-112	7	30
Benzo(a)anthracene	N.D.	50.4	49.2	52.97	51.64	98	97	70-118	5	30
Benzo(a)pyrene	N.D.	50.4	45.67	52.97	48.37	91	91	71-117	6	30
Benzo(b)fluoranthene	N.D.	50.4	47.38	52.97	52.3	94	99	71-115	10	30
Benzo(g,h,i)perylene	N.D.	50.4	39.47	52.97	44.6	78	84	60-119	12	30
Chrysene	N.D.	50.4	47.01	52.97	47.97	93	91	69-116	2	30
Fluorene	N.D.	50.4	34.81	52.97	38.32	69	72	56-115	10	30
Naphthalene	0.262	50.4	31.72	52.97	32.04	62	60	45-105	1	30
Phenanthrene	N.D.	50.4	48.46	52.97	52.97	96	100	65-113	9	30
Pyrene	N.D.	50.4	41.15	52.97	42.59	82	80	65-115	3	30
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 193080022A	Sample number(s): 1190928-1190930 UNSPK: P190925									
Ethylene dibromide	N.D.	0.121	0.145			120		60-140		
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 193091404706A	Sample number(s): 1190928-1190929 UNSPK: P190191									
Lead	N.D.	5.00	5.13	5.00	5.34	103	107	88-115	4	20
Batch number: 193091404708A	Sample number(s): 1190930 UNSPK: P189926									
Lead	N.D.	5.00	5.57	5.00	5.67	111	113	75-125	2	20

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc	DUP Conc	DUP RPD	DUP RPD Max
	ug/l	ug/l		
Batch number: 193080022A	Sample number(s): 1190928-1190930 BKG: 1190929			
Ethylene dibromide	N.D.	N.D.	0 (1)	30
	ug/l	ug/l		
Batch number: 193091404706A	Sample number(s): 1190928-1190929 BKG: P190191			
Lead	N.D.	N.D.	0 (1)	20
Batch number: 193091404708A	Sample number(s): 1190930 BKG: P189926			
Lead	N.D.	N.D.	0 (1)	20

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 11/13/2019 12:35

Group Number: 2072376

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: F193132AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1190928	99	97	98	95
1190929	100	95	99	97
1190930	99	95	99	98
Blank	98	94	100	98
LCS	97	94	100	98
LCSD	98	95	99	97
Limits:	80-120	80-120	80-120	80-120

Analysis Name: PAHs 8270C MINI
Batch number: 19309WAB026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
1190928	66	55	60
1190929	73	59	64
1190930	71	57	59
Blank	96	65	73
LCS	80	51	61
MS	92	56	69
MSD	86	57	63
Limits:	33-113	44-102	39-125

Analysis Name: EDB in Wastewater
Batch number: 193080022A

	1,1,2,2-Tetrachloroethane-D1	1,1,2,2-Tetrachloroethane-D2
1190928	85	83
1190929	86	81
1190930	86	85
Blank	81	79
DUP	84	86
LCS	87	84
LCSD	83	84
MS	86	82
Limits:	46-136	46-136

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Environmental Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories Environmental use only
Acct. # 16657 Group # 2072376 Sample # 1190928-30

COC # 594864

Client Information

Client: Stantec	Acct. #: Evergreen c10 16657 Stantec
Project Name/#: 2019 Q4 GWS PHL	PWSID #:
Project Manager: Jennifer Menges	P.O. #: 213402429
Sampler: Dana Hoblitzell	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: ____

Analysis Requested

Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	H Evergreen VOCs 8260	H EDB 8011	N Dissolved Lead (Field Filtered)	PAH 8270	H TBA 8260
C-144D_20191030	10/30/19	1125	X		8	X	X	X	X	X
C-129D_20191030	10/30/19	1320	X		8	X	X	X	X	X
A-19D_20191030	10/30/19	1430	X		8	X	X	X	X	X

For Lab Use Only
FSC:
SCR#:

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days:

E-mail address: Jennifer.Menges@stantec.com

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
	11/1/19	1400			
	11/1/19	1631			
				11-7-19	0649

EDD Required? Yes No
If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:
UPS ____ FedEx ____ Other ____

Temperature upon receipt 4.1 °C

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Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 264943

Group Number(s): 2672376

Client: Stantec

Delivery and Receipt Information

Delivery Method:	ELLE Courier	Arrival Date:	11/01/2019
Number of Packages:	1	Number of Projects:	5
State/Province of Origin:	PA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Melvin Sanchez

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Matrix	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	Water	192050133	4.6	IR	Wet	Y	Loose	N

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Lancaster, PA 17605-2425

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report
B	Detection in the Method Blank
Q0	LCS/LCSD Low
Q1	LCS/LCSD High
Q2	MS/MSD Low
Q3	MS/MSD High
Q7	LCS/LCSD RPD
Q8	DUP RPD
Q9	MS/MSD RPD

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

Report Date: January 02, 2020 11:59

Project: 2019 Q4 GWS PHL

Account #: 16657
Group Number: 2073111
PO Number: 213402429
State of Sample Origin: PA

Electronic Copy To	Evergreen c/o Stantec	Attn: Jennifer Menges
Electronic Copy To	Evergreen c/o Stantec	Attn: Andrew Bradley

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

A previous version of this report was generated on 11/20/2019 12:32.

To view our laboratory's current scopes of accreditation please go to https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/ . Historical copies may be requested through your project manager.

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
B-43_20191101 Grab Groundwater	11/01/2019 13:25	1194606
B-39-SL_20191104 Grab Groundwater	11/04/2019 13:50	1194607
S-355-SL_20191105 Grab Groundwater	11/05/2019 10:05	1194608
S-423-SL_20191105 Grab Groundwater	11/05/2019 13:40	1194609
S-396_20191101 Grab Groundwater	11/01/2019 12:40	1194610
S-418_20191101 Grab Groundwater	11/01/2019 14:00	1194611
S-377_20191105 Grab Groundwater	11/05/2019 10:55	1194612
B-156_20191105 Grab Groundwater	11/05/2019 13:00	1194613
B-172_20191105 Grab Groundwater	11/05/2019 14:08	1194614
B-165_20191104 Grab Groundwater	11/04/2019 11:45	1194615
B-170_20191104 Grab Groundwater	11/04/2019 13:20	1194616
TRIP BLANK Water	11/06/2019	1194617
S-398_20191101 Grab Groundwater	11/01/2019 09:30	1194618
ARCO-1D_20191101 Grab Groundwater	11/01/2019 11:44	1194619
ARCO-1_20191101 Grab Groundwater	11/01/2019 12:52	1194620
ARCO-2_20191101 Grab Groundwater	11/01/2019 13:50	1194621
ARCO-3_20191101 Grab Groundwater	11/01/2019 14:38	1194622
DUP-3_20191101 Grab Groundwater	11/01/2019	1194623
A-139_20191104 Grab Groundwater	11/04/2019 10:20	1194624
A-140_20191104 Grab Groundwater	11/04/2019 10:55	1194625
A-182_20191104 Grab Groundwater	11/04/2019 12:33	1194626
B-169_20191104 Grab Groundwater	11/04/2019 13:32	1194627

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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Analysis Report

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Sample Description: B-43_20191101 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 11/06/2019 19:24
Collection Date/Time: 11/01/2019 13:25

Evergreen c/o Stantec
ELLE Sample #: GW 1194606
ELLE Group #: 2073111
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	1 J	0.2	1
10945	Isopropylbenzene	98-82-8	6	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	0.8 J	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	2 J	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	0.7	0.1	1
14249	Benzo(a)anthracene	56-55-3	0.2 J	0.1	1
14249	Benzo(a)pyrene	50-32-8	0.2 J	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	0.1 J	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	0.2 J	0.1	1
14249	Fluorene	86-73-7	0.9	0.1	1
14249	Naphthalene	91-20-3	10	0.1	1
14249	Phenanthrene	85-01-8	2	0.1	1
14249	Pyrene	129-00-0	1	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.45 J	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F193174AA	11/13/2019 20:31	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193174AA	11/13/2019 20:30	Sara E Johnson	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19311WAF026	11/12/2019 02:33	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19311WAF026	11/07/2019 18:15	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193110023A	11/09/2019 07:10	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193110023A	11/08/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193131404702A	11/13/2019 17:28	Patrick J Engle	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193131404702	11/13/2019 03:15	James L Mertz	1

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Analysis Report

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Sample Description: B-39-SL_20191104 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 11/06/2019 19:24
Collection Date/Time: 11/04/2019 13:50

Evergreen c/o Stantec
ELLE Sample #: GW 1194607
ELLE Group #: 2073111
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	2	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	0.4 J	0.2	1
10945	Isopropylbenzene	98-82-8	18	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	2	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	0.3 J	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	3	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	0.8	0.1	1
14249	Benzo(a)anthracene	56-55-3	1	0.1	1
14249	Benzo(a)pyrene	50-32-8	0.9	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	1	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	0.4 J	0.1	1
14249	Chrysene	218-01-9	1	0.1	1
14249	Fluorene	86-73-7	2	0.1	1
14249	Naphthalene	91-20-3	2	0.1	1
14249	Phenanthrene	85-01-8	0.4 J	0.1	1
14249	Pyrene	129-00-0	2	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	6.4	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F193181AA	11/14/2019 15:18	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193181AA	11/14/2019 15:17	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19312WAG026	11/15/2019 11:49	Linda M Hartenstine	1
07807	BNA Water Extraction	SW-846 3510C	1	19312WAG026	11/09/2019 23:00	Mathias Okpo	1
10398	EDB in Wastewater	SW-846 8011	1	193110023A	11/09/2019 07:25	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193110023A	11/08/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193131404702A	11/13/2019 17:07	Patrick J Engle	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193131404702	11/13/2019 03:15	James L Mertz	1

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Analysis Report

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Sample Description: S-355-SL_20191105 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 11/06/2019 19:24
Collection Date/Time: 11/05/2019 10:05

Evergreen c/o Stantec
ELLE Sample #: GW 1194608
ELLE Group #: 2073111
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	0.6 J	0.2	1
10945	t-Butyl alcohol	75-65-0	27	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	34	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	9	0.2	1
10945	Toluene	108-88-3	3	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	5	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	2	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	4	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0096	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.20 J	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193185AA	11/14/2019 22:13	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193185AA	11/14/2019 22:12	Sara E Johnson	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19315WAF026	11/14/2019 03:47	Ashley R Transue	1
07807	BNA Water Extraction	SW-846 3510C	1	19315WAF026	11/12/2019 09:00	Joshua S Ruth	1
10398	EDB in Wastewater	SW-846 8011	1	193110023A	11/09/2019 07:41	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193110023A	11/08/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193131404702A	11/13/2019 17:18	Patrick J Engle	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193131404702	11/13/2019 03:15	James L Mertz	1

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Sample Description: **S-423-SL_20191105 Grab Groundwater**
2019 Q4 GWS PHL

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/06/2019 19:24
Collection Date/Time: 11/05/2019 13:40

Evergreen c/o Stantec
ELLE Sample #: GW 1194609
ELLE Group #: 2073111
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	0.5 J	0.2	1
10945	t-Butyl alcohol	75-65-0	28	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	0.3 J	0.2	1
10945	Isopropylbenzene	98-82-8	44	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	7	0.2	1
10945	Toluene	108-88-3	1	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	1	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	2	0.1	1
14249	Fluorene	86-73-7	6	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	14	0.1	1
14249	Pyrene	129-00-0	1	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	6.0 B	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193185AA	11/14/2019 22:35	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193185AA	11/14/2019 22:34	Sara E Johnson	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19315WAF026	11/14/2019 04:16	Ashley R Transue	1
07807	BNA Water Extraction	SW-846 3510C	1	19315WAF026	11/12/2019 09:00	Joshua S Ruth	1
10398	EDB in Wastewater	SW-846 8011	1	193110023A	11/09/2019 07:57	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193110023A	11/08/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193131404701A	11/13/2019 12:38	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193131404701	11/12/2019 04:02	James L Mertz	1

REVISED

Sample Description: S-396_20191101 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 11/06/2019 19:24
Collection Date/Time: 11/01/2019 12:40

Evergreen c/o Stantec
ELLE Sample #: GW 1194610
ELLE Group #: 2073111
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	
10945	Benzene	71-43-2	660		1	5
10945	t-Butyl alcohol	75-65-0	81,000		5,000	500
10945	1,2-Dichloroethane	107-06-2	N.D.		10	5
10945	Ethylbenzene	100-41-4	16		1	5
10945	Isopropylbenzene	98-82-8	18	J	2	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	1,600		1	5
10945	Toluene	108-88-3	N.D.		1	5
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.		2	5
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.		2	5
10945	Xylene (Total)	1330-20-7	10	J	4	5
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	
14249	Anthracene	120-12-7	N.D.		0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.		0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.		0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.		0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.		0.1	1
14249	Chrysene	218-01-9	N.D.		0.1	1
14249	Fluorene	86-73-7	N.D.		0.1	1
14249	Naphthalene	91-20-3	0.6		0.1	1
14249	Phenanthrene	85-01-8	N.D.		0.1	1
14249	Pyrene	129-00-0	N.D.		0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D.	D2	0.0097	1
Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	
06035	Lead	7439-92-1	0.17	J	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193185AA	11/15/2019 00:03	Sara E Johnson	5
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193211AA	11/17/2019 16:11	Alexander D Sechrist	500
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193185AA	11/15/2019 00:02	Sara E Johnson	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F193211AA	11/17/2019 16:10	Alexander D Sechrist	500
14249	PAHs 8270C MINI	SW-846 8270C	1	19315WAF026	11/14/2019 04:45	Ashley R Transue	1
07807	BNA Water Extraction	SW-846 3510C	1	19315WAF026	11/12/2019 09:00	Joshua S Ruth	1
10398	EDB in Wastewater	SW-846 8011	1	193110023A	11/09/2019 08:13	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193110023A	11/08/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193131404702A	11/13/2019 17:05	Patrick J Engle	1

REVISED

Sample Description: **S-396_20191101 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/06/2019 19:24
Collection Date/Time: 11/01/2019 12:40

Evergreen c/o Stantec
ELLE Sample #: GW 1194610
ELLE Group #: 2073111
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193131404702	11/13/2019 03:15	James L Mertz	1

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Analysis Report

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Sample Description: S-418_20191101 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 11/06/2019 19:24
Collection Date/Time: 11/01/2019 14:00

Evergreen c/o Stantec
ELLE Sample #: GW 1194611
ELLE Group #: 2073111
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	
10945	Benzene	71-43-2	21,000		40	200
10945	t-Butyl alcohol	75-65-0	1,400		200	20
10945	1,2-Dichloroethane	107-06-2	N.D.		40	20
10945	Ethylbenzene	100-41-4	120		4	20
10945	Isopropylbenzene	98-82-8	76	J	6	20
10945	Methyl Tertiary Butyl Ether	1634-04-4	21		4	20
10945	Toluene	108-88-3	74		4	20
10945	1,2,4-Trimethylbenzene	95-63-6	75	J	6	20
10945	1,3,5-Trimethylbenzene	108-67-8	41	J	6	20
10945	Xylene (Total)	1330-20-7	110		16	20
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	
14249	Anthracene	120-12-7	N.D.		0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.		0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.		0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.		0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.		0.1	1
14249	Chrysene	218-01-9	N.D.		0.1	1
14249	Fluorene	86-73-7	1		0.1	1
14249	Naphthalene	91-20-3	28		0.1	1
14249	Phenanthrene	85-01-8	0.7		0.1	1
14249	Pyrene	129-00-0	N.D.		0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D.	D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	
06035	Lead	7439-92-1	4.3		0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193185AA	11/15/2019 00:25	Sara E Johnson	20
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193185AA	11/15/2019 00:48	Sara E Johnson	200
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193185AA	11/15/2019 00:24	Sara E Johnson	20
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F193185AA	11/15/2019 00:47	Sara E Johnson	200
14249	PAHs 8270C MINI	SW-846 8270C	1	19315WAF026	11/14/2019 05:14	Ashley R Transue	1
07807	BNA Water Extraction	SW-846 3510C	1	19315WAF026	11/12/2019 09:00	Joshua S Ruth	1
10398	EDB in Wastewater	SW-846 8011	1	193110024A	11/09/2019 10:31	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193110024A	11/08/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193131404702A	11/13/2019 17:39	Patrick J Engle	1

REVISED

Sample Description: **S-418_20191101 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/06/2019 19:24
Collection Date/Time: 11/01/2019 14:00

Evergreen c/o Stantec
ELLE Sample #: GW 1194611
ELLE Group #: 2073111
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193131404702	11/13/2019 03:15	James L Mertz	1

REVISED

Sample Description: S-377_20191105 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 11/06/2019 19:24
Collection Date/Time: 11/05/2019 10:55

Evergreen c/o Stantec
ELLE Sample #: GW 1194612
ELLE Group #: 2073111
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	77	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	74	0.2	1
10945	Isopropylbenzene	98-82-8	12	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	44	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	170	3	10
10945	1,3,5-Trimethylbenzene	108-67-8	120	0.3	1
10945	Xylene (Total)	1330-20-7	350	0.8	1

The recovery for the sample internal standard is outside the QC acceptance limits. The following action was taken: Since this internal standard was not used to quantitate any target analytes,the data is reported.

Preservation requirements were not met. A preserved vial was submitted for analysis. However, the pH at the time of analysis was 7.

GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	34	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.073 J	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193185AA	11/14/2019 22:57	Sara E Johnson	1

REVISED

Sample Description: **S-377_20191105 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/06/2019 19:24
Collection Date/Time: 11/05/2019 10:55

Evergreen c/o Stantec
ELLE Sample #: GW 1194612
ELLE Group #: 2073111
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193211AA	11/17/2019 16:33	Alexander D Sechrist	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193185AA	11/14/2019 22:56	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F193211AA	11/17/2019 16:32	Alexander D Sechrist	10
14249	PAHs 8270C MINI	SW-846 8270C	1	19315WAF026	11/14/2019 05:43	Ashley R Transue	1
07807	BNA Water Extraction	SW-846 3510C	1	19315WAF026	11/12/2019 09:00	Joshua S Ruth	1
10398	EDB in Wastewater	SW-846 8011	1	193110024A	11/09/2019 11:03	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193110024A	11/08/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193131404702A	11/13/2019 16:54	Patrick J Engle	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193131404702	11/13/2019 03:15	James L Mertz	1

REVISED

Sample Description: B-156_20191105 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 11/06/2019 19:24
Collection Date/Time: 11/05/2019 13:00

Evergreen c/o Stantec
ELLE Sample #: GW 1194613
ELLE Group #: 2073111
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	91	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	7	0.2	1
10945	Isopropylbenzene	98-82-8	120	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	21	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	12	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	10	0.3	1
10945	Xylene (Total)	1330-20-7	37	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	1	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	6	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	4	0.1	1
14249	Pyrene	129-00-0	0.9	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.32 J	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F193185AA	11/14/2019 23:19	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193185AA	11/14/2019 23:18	Sara E Johnson	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19315WAF026	11/14/2019 06:13	Ashley R Transue	1
07807	BNA Water Extraction	SW-846 3510C	1	19315WAF026	11/12/2019 09:00	Joshua S Ruth	1
10398	EDB in Wastewater	SW-846 8011	1	193110024A	11/09/2019 11:35	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193110024A	11/08/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193131404703A	11/13/2019 19:08	Patrick J Engle	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193131404703	11/13/2019 03:15	James L Mertz	1

REVISED

Sample Description: B-172_20191105 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 11/06/2019 19:24
Collection Date/Time: 11/05/2019 14:08

Evergreen c/o Stantec
ELLE Sample #: GW 1194614
ELLE Group #: 2073111
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.20 J	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F193185AA	11/14/2019 23:41	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193185AA	11/14/2019 23:40	Sara E Johnson	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19315WAF026	11/14/2019 06:42	Ashley R Transue	1
07807	BNA Water Extraction	SW-846 3510C	1	19315WAF026	11/12/2019 09:00	Joshua S Ruth	1
10398	EDB in Wastewater	SW-846 8011	1	193110024A	11/09/2019 11:51	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193110024A	11/08/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193131404703A	11/13/2019 19:06	Patrick J Engle	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193131404703	11/13/2019 03:15	James L Mertz	1

REVISED

Sample Description: B-165_20191104 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 11/06/2019 19:24
Collection Date/Time: 11/04/2019 11:45

Evergreen c/o Stantec
ELLE Sample #: GW 1194615
ELLE Group #: 2073111
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	0.8 J	0.2	1
10945	Isopropylbenzene	98-82-8	6	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.3 J	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	75	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	16	0.3	1
10945	Xylene (Total)	1330-20-7	17	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	0.3 J	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	2	0.1	1
14249	Naphthalene	91-20-3	11	0.1	1
14249	Phenanthrene	85-01-8	1	0.1	1
14249	Pyrene	129-00-0	0.6	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.53	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F193181AA	11/14/2019 15:40	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193181AA	11/14/2019 15:39	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19312WAG026	11/15/2019 12:17	Linda M Hartenstine	1
07807	BNA Water Extraction	SW-846 3510C	1	19312WAG026	11/09/2019 23:00	Mathias Okpo	1
10398	EDB in Wastewater	SW-846 8011	1	193110024A	11/09/2019 12:06	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193110024A	11/08/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193131404703A	11/13/2019 19:04	Patrick J Engle	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193131404703	11/13/2019 03:15	James L Mertz	1

REVISED

Sample Description: B-170_20191104 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 11/06/2019 19:24
Collection Date/Time: 11/04/2019 13:20

Evergreen c/o Stantec
ELLE Sample #: GW 1194616
ELLE Group #: 2073111
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	1	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	0.2 J	0.2	1
10945	Isopropylbenzene	98-82-8	5 J	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	0.4 J	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	1 J	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	1 J	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	0.3 J	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	2	0.1	1
14249	Naphthalene	91-20-3	15	0.1	1
14249	Phenanthrene	85-01-8	2	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.092 J	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F193181AA	11/14/2019 16:02	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193181AA	11/14/2019 16:01	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19312WAG026	11/15/2019 12:46	Linda M Hartenstine	1
07807	BNA Water Extraction	SW-846 3510C	1	19312WAG026	11/09/2019 23:00	Mathias Okpo	1
10398	EDB in Wastewater	SW-846 8011	1	193110024A	11/09/2019 12:54	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193110024A	11/08/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193131404702A	11/13/2019 17:35	Patrick J Engle	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193131404702	11/13/2019 03:15	James L Mertz	1

REVISED

Sample Description: **TRIP BLANK Water**
2019 Q4 GWS PHL

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/06/2019 19:24
Collection Date/Time: 11/06/2019

Evergreen c/o Stantec
ELLE Sample #: GW 1194617
ELLE Group #: 2073111
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0096	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F193211AA	11/17/2019 13:38	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193211AA	11/17/2019 13:37	Alexander D Sechrist	1
10398	EDB in Wastewater	SW-846 8011	1	193110024A	11/09/2019 13:10	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193110024A	11/08/2019 04:00	Mathias Okpo	1

REVISED

Sample Description: S-398_20191101 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 11/06/2019 19:24
Collection Date/Time: 11/01/2019 09:30

Evergreen c/o Stantec
ELLE Sample #: GW 1194618
ELLE Group #: 2073111
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	4	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	2	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	0.5 J	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.99 B	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193174AA	11/13/2019 20:53	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193174AA	11/13/2019 20:52	Sara E Johnson	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19311WAF026	11/12/2019 03:02	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19311WAF026	11/07/2019 18:15	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193110024A	11/09/2019 13:26	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193110024A	11/08/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193131404701A	11/13/2019 12:43	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193131404701	11/12/2019 04:02	James L Mertz	1

REVISED

Sample Description: **ARCO-1D_20191101 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/06/2019 19:24
Collection Date/Time: 11/01/2019 11:44

Evergreen c/o Stantec
ELLE Sample #: GW 1194619
ELLE Group #: 2073111
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	200	2	10
10945	t-Butyl alcohol	75-65-0	13 J	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	0.2 J	0.2	1
10945	Isopropylbenzene	98-82-8	1 J	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	61	0.2	1
10945	Toluene	108-88-3	0.7 J	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.073 J	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193175AA	11/13/2019 22:09	Sara E Johnson	1
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193184AA	11/14/2019 22:26	Sara E Johnson	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193175AA	11/13/2019 22:08	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F193184AA	11/14/2019 22:25	Sara E Johnson	10
14249	PAHs 8270C MINI	SW-846 8270C	1	19311WAF026	11/12/2019 03:30	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19311WAF026	11/07/2019 18:15	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193110024A	11/09/2019 13:41	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193110024A	11/08/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193131404702A	11/13/2019 17:20	Patrick J Engle	1

REVISED

Sample Description: **ARCO-1D_20191101 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/06/2019 19:24
Collection Date/Time: 11/01/2019 11:44

Evergreen c/o Stantec
ELLE Sample #: GW 1194619
ELLE Group #: 2073111
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193131404702	11/13/2019 03:15	James L Mertz	1

REVISED

Sample Description: **ARCO-1_20191101 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/06/2019 19:24
Collection Date/Time: 11/01/2019 12:52

Evergreen c/o Stantec
ELLE Sample #: GW 1194620
ELLE Group #: 2073111
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	170	2	10
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	3	0.2	1
10945	Isopropylbenzene	98-82-8	30	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	14	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	0.5 J	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	2 J	0.3	1
10945	Xylene (Total)	1330-20-7	16	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	0.9	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	0.7	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.10 J	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193175AA	11/13/2019 22:31	Sara E Johnson	1
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193184AA	11/14/2019 22:48	Sara E Johnson	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193175AA	11/13/2019 22:30	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F193184AA	11/14/2019 22:47	Sara E Johnson	10
14249	PAHs 8270C MINI	SW-846 8270C	1	19311WAF026	11/12/2019 03:59	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19311WAF026	11/07/2019 18:15	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193110024A	11/09/2019 13:57	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193110024A	11/08/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193131404702A	11/13/2019 17:22	Patrick J Engle	1

REVISED

Sample Description: **ARCO-1_20191101 Grab Groundwater**
2019 Q4 GWS PHL

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/06/2019 19:24
Collection Date/Time: 11/01/2019 12:52

Evergreen c/o Stantec
ELLE Sample #: GW 1194620
ELLE Group #: 2073111
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193131404702	11/13/2019 03:15	James L Mertz	1

REVISED

Sample Description: **ARCO-2_20191101 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/06/2019 19:24
Collection Date/Time: 11/01/2019 13:50

Evergreen c/o Stantec
ELLE Sample #: GW 1194621
ELLE Group #: 2073111
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	260	1	5
10945	t-Butyl alcohol	75-65-0	N.D.	50	5
10945	1,2-Dichloroethane	107-06-2	N.D.	10	5
10945	Ethylbenzene	100-41-4	9	1	5
10945	Isopropylbenzene	98-82-8	40	2	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	5
10945	Toluene	108-88-3	26	1	5
10945	1,2,4-Trimethylbenzene	95-63-6	4 J	2	5
10945	1,3,5-Trimethylbenzene	108-67-8	4 J	2	5
10945	Xylene (Total)	1330-20-7	43	4	5
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	1	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	0.4 J	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.24 J	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193175AA	11/14/2019 02:10	Sara E Johnson	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193175AA	11/14/2019 02:09	Sara E Johnson	5
14249	PAHs 8270C MINI	SW-846 8270C	1	19311WAF026	11/12/2019 04:28	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19311WAF026	11/07/2019 18:15	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193110024A	11/09/2019 14:13	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193110024A	11/08/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193131404702A	11/13/2019 17:16	Patrick J Engle	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193131404702	11/13/2019 03:15	James L Mertz	1

REVISED

Sample Description: **ARCO-3_20191101 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/06/2019 19:24
Collection Date/Time: 11/01/2019 14:38

Evergreen c/o Stantec
ELLE Sample #: GW 1194622
ELLE Group #: 2073111
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	
10945	Benzene	71-43-2	1,600		10	50
10945	t-Butyl alcohol	75-65-0	N.D.		50	5
10945	1,2-Dichloroethane	107-06-2	N.D.		10	5
10945	Ethylbenzene	100-41-4	31		1	5
10945	Isopropylbenzene	98-82-8	51		2	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		1	5
10945	Toluene	108-88-3	68		1	5
10945	1,2,4-Trimethylbenzene	95-63-6	11	J	2	5
10945	1,3,5-Trimethylbenzene	108-67-8	13	J	2	5
10945	Xylene (Total)	1330-20-7	74		4	5
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	
14249	Anthracene	120-12-7	N.D.		0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.		0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.		0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.		0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.		0.1	1
14249	Chrysene	218-01-9	N.D.		0.1	1
14249	Fluorene	86-73-7	1		0.1	1
14249	Naphthalene	91-20-3	9		0.1	1
14249	Phenanthrene	85-01-8	0.9		0.1	1
14249	Pyrene	129-00-0	N.D.		0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D.	D1	0.0093	1
Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	
06035	Lead	7439-92-1	0.18	J	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193175AA	11/14/2019 02:32	Sara E Johnson	5
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193175AA	11/14/2019 02:54	Sara E Johnson	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193175AA	11/14/2019 02:31	Sara E Johnson	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F193175AA	11/14/2019 02:53	Sara E Johnson	50
14249	PAHs 8270C MINI	SW-846 8270C	1	19311WAF026	11/12/2019 04:57	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19311WAF026	11/07/2019 18:15	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193110024A	11/09/2019 14:29	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193110024A	11/08/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193131404702A	11/13/2019 17:26	Patrick J Engle	1

REVISED

Sample Description: **ARCO-3_20191101 Grab Groundwater**
2019 Q4 GWS PHL

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/06/2019 19:24
Collection Date/Time: 11/01/2019 14:38

Evergreen c/o Stantec
ELLE Sample #: GW 1194622
ELLE Group #: 2073111
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193131404702	11/13/2019 03:15	James L Mertz	1

REVISED

Sample Description: DUP-3_20191101 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 11/06/2019 19:24
Collection Date/Time: 11/01/2019

Evergreen c/o Stantec
ELLE Sample #: GW 1194623
ELLE Group #: 2073111
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	
10945	Benzene	71-43-2	190		2	10
10945	t-Butyl alcohol	75-65-0	12	J	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.		2	1
10945	Ethylbenzene	100-41-4	0.2	J	0.2	1
10945	Isopropylbenzene	98-82-8	2	J	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	64		0.2	1
10945	Toluene	108-88-3	0.7	J	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.		0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.		0.3	1
10945	Xylene (Total)	1330-20-7	1	J	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	
14249	Anthracene	120-12-7	N.D.		0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.		0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.		0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.		0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.		0.1	1
14249	Chrysene	218-01-9	N.D.		0.1	1
14249	Fluorene	86-73-7	N.D.		0.1	1
14249	Naphthalene	91-20-3	N.D.		0.1	1
14249	Phenanthrene	85-01-8	N.D.		0.1	1
14249	Pyrene	129-00-0	N.D.		0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D.	D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	
06035	Lead	7439-92-1	0.095	J B	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193175AA	11/13/2019 22:53	Sara E Johnson	1
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193184AA	11/14/2019 23:10	Sara E Johnson	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193175AA	11/13/2019 22:52	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F193184AA	11/14/2019 23:09	Sara E Johnson	10
14249	PAHs 8270C MINI	SW-846 8270C	1	19311WAF026	11/12/2019 05:26	Sylvester Williams	1
07807	BNA Water Extraction	SW-846 3510C	1	19311WAF026	11/07/2019 18:15	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193110024A	11/09/2019 14:45	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193110024A	11/08/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193131404701A	11/13/2019 11:35	Bradley M Berlot	1

REVISED

Sample Description: **DUP-3_20191101 Grab Groundwater**
2019 Q4 GWS PHL

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/06/2019 19:24
Collection Date/Time: 11/01/2019

Evergreen c/o Stantec
ELLE Sample #: GW 1194623
ELLE Group #: 2073111
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193131404701	11/12/2019 04:02	James L Mertz	1

REVISED

Sample Description: **A-139_20191104 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/06/2019 19:24
Collection Date/Time: 11/04/2019 10:20

Evergreen c/o Stantec
ELLE Sample #: GW 1194624
ELLE Group #: 2073111
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	93.3 B	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F193181AA	11/14/2019 16:24	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193181AA	11/14/2019 16:23	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19312WAG026	11/15/2019 13:15	Linda M Hartenstine	1
07807	BNA Water Extraction	SW-846 3510C	1	19312WAG026	11/09/2019 23:00	Mathias Okpo	1
10398	EDB in Wastewater	SW-846 8011	1	193110024A	11/09/2019 15:01	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193110024A	11/08/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193131404701A	11/13/2019 12:19	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193131404701	11/12/2019 04:02	James L Mertz	1

REVISED

Sample Description: **A-140_20191104 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/06/2019 19:24
Collection Date/Time: 11/04/2019 10:55

Evergreen c/o Stantec
ELLE Sample #: GW 1194625
ELLE Group #: 2073111
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	1.7	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F193181AA	11/14/2019 16:46	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193181AA	11/14/2019 16:45	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19312WAG026	11/15/2019 14:12	Linda M Hartenstine	1
07807	BNA Water Extraction	SW-846 3510C	1	19312WAG026	11/09/2019 23:00	Mathias Okpo	1
10398	EDB in Wastewater	SW-846 8011	1	193110024A	11/09/2019 15:17	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193110024A	11/08/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193131404702A	11/13/2019 17:24	Patrick J Engle	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193131404702	11/13/2019 03:15	James L Mertz	1

REVISED

Sample Description: **A-182_20191104 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/06/2019 19:24
Collection Date/Time: 11/04/2019 12:33

Evergreen c/o Stantec
ELLE Sample #: GW 1194626
ELLE Group #: 2073111
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	0.3 J	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	0.4 J	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	2.9 B	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F193181AA	11/14/2019 17:07	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193181AA	11/14/2019 17:06	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19312WAG026	11/15/2019 14:41	Linda M Hartenstine	1
07807	BNA Water Extraction	SW-846 3510C	1	19312WAG026	11/09/2019 23:00	Mathias Okpo	1
10398	EDB in Wastewater	SW-846 8011	1	193110024A	11/09/2019 16:05	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193110024A	11/08/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193131404701A	11/13/2019 12:41	Bradley M Berlot	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193131404701	11/12/2019 04:02	James L Mertz	1

REVISED

Sample Description: B-169_20191104 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 11/06/2019 19:24
Collection Date/Time: 11/04/2019 13:32

Evergreen c/o Stantec
ELLE Sample #: GW 1194627
ELLE Group #: 2073111
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	1.7	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F193184AA	11/15/2019 02:06	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193184AA	11/15/2019 02:05	Sara E Johnson	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19312WAG026	11/15/2019 15:10	Linda M Hartenstine	1
07807	BNA Water Extraction	SW-846 3510C	1	19312WAG026	11/09/2019 23:00	Mathias Okpo	1
10398	EDB in Wastewater	SW-846 8011	1	193110024A	11/09/2019 16:20	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193110024A	11/08/2019 04:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193131404703A	11/13/2019 18:57	Patrick J Engle	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193131404703	11/13/2019 03:15	James L Mertz	1

REVISED

Quality Control Summary

Client Name: Evergreen c/o Stantec Group Number: 2073111
Reported: 01/02/2020 11:59

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	ug/l	ug/l
Batch number: F193174AA	Sample number(s): 1194606,1194618	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.8
Batch number: F193175AA	Sample number(s): 1194619-1194623	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.8
Batch number: F193181AA	Sample number(s): 1194607,1194615-1194616,1194624-1194626	
Benzene	N.D.	0.2
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.8
Batch number: F193184AA	Sample number(s): 1194619-1194620,1194623,1194627	
Benzene	N.D.	0.2
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
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Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 01/02/2020 11:59

Group Number: 2073111

Method Blank (continued)

Analysis Name	Result	MDL
	ug/l	ug/l
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.8
Batch number: F193185AA	Sample number(s): 1194608-1194614	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.8
Batch number: F193211AA	Sample number(s): 1194610,1194612,1194617	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.8
Batch number: 19311WAF026	Sample number(s): 1194606,1194618-1194623	
Anthracene	N.D.	0.1
Benzo(a)anthracene	N.D.	0.1
Benzo(a)pyrene	N.D.	0.1
Benzo(b)fluoranthene	N.D.	0.1
Benzo(g,h,i)perylene	N.D.	0.1
Chrysene	N.D.	0.1
Fluorene	N.D.	0.1
Naphthalene	N.D.	0.1
Phenanthrene	N.D.	0.1
Pyrene	N.D.	0.1
Batch number: 19312WAG026	Sample number(s): 1194607,1194615-1194616,1194624-1194627	
Anthracene	N.D.	0.1
Benzo(a)anthracene	N.D.	0.1
Benzo(a)pyrene	N.D.	0.1
Benzo(b)fluoranthene	N.D.	0.1
Benzo(g,h,i)perylene	N.D.	0.1

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Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 01/02/2020 11:59

Group Number: 2073111

Method Blank (continued)

Analysis Name	Result	MDL
	ug/l	ug/l
Chrysene	N.D.	0.1
Fluorene	N.D.	0.1
Naphthalene	N.D.	0.1
Phenanthrene	N.D.	0.1
Pyrene	N.D.	0.1
Batch number: 19315WAF026	Sample number(s): 1194608-1194614	
Anthracene	N.D.	0.1
Benzo(a)anthracene	N.D.	0.1
Benzo(a)pyrene	N.D.	0.1
Benzo(b)fluoranthene	N.D.	0.1
Benzo(g,h,i)perylene	N.D.	0.1
Chrysene	N.D.	0.1
Fluorene	N.D.	0.1
Naphthalene	N.D.	0.1
Phenanthrene	N.D.	0.1
Pyrene	N.D.	0.1
Batch number: 193110023A	Sample number(s): 1194606-1194610	
Ethylene dibromide	N.D.	0.010
Batch number: 193110024A	Sample number(s): 1194611-1194627	
Ethylene dibromide	N.D.	0.010
Batch number: 193131404701A	Sample number(s): 1194609,1194618,1194623-1194624,1194626	
Lead	0.098 J	0.071
Batch number: 193131404702A	Sample number(s): 1194606-1194608,1194610-1194612,1194616,1194619-1194622,1194625	
Lead	N.D.	0.071
Batch number: 193131404703A	Sample number(s): 1194613-1194615,1194627	
Lead	N.D.	0.071

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F193174AA	Sample number(s): 1194606,1194618								
Benzene	20	19.34			97		80-120		
t-Butyl alcohol	200	187.64			94		60-130		
1,2-Dichloroethane	20	19.48			97		73-124		
Ethylbenzene	20	18.92			95		80-120		
Isopropylbenzene	20	18.16			91		80-120		
Methyl Tertiary Butyl Ether	20	19.75			99		69-122		

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Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 01/02/2020 11:59

Group Number: 2073111

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Toluene	20	18.42			92		80-120		
1,2,4-Trimethylbenzene	20	18.65			93		75-120		
1,3,5-Trimethylbenzene	20	18.35			92		75-120		
Xylene (Total)	60	55.21			92		80-120		
Batch number: F193175AA	Sample number(s): 1194619-1194623								
Benzene	20	19.67	20	19.83	98	99	80-120	1	30
t-Butyl alcohol	200	190.36	200	192.72	95	96	60-130	1	30
1,2-Dichloroethane	20	19.79	20	19.88	99	99	73-124	0	30
Ethylbenzene	20	19.35	20	19.03	97	95	80-120	2	30
Isopropylbenzene	20	19.07	20	18.81	95	94	80-120	1	30
Methyl Tertiary Butyl Ether	20	20.33	20	20.64	102	103	69-122	2	30
Toluene	20	19.63	20	19.35	98	97	80-120	1	30
1,2,4-Trimethylbenzene	20	19.22	20	19.34	96	97	75-120	1	30
1,3,5-Trimethylbenzene	20	19.69	20	19.37	98	97	75-120	2	30
Xylene (Total)	60	58.06	60	56.45	97	94	80-120	3	30
Batch number: F193181AA	Sample number(s): 1194607,1194615-1194616,1194624-1194626								
Benzene	20	18.07			90		80-120		
1,2-Dichloroethane	20	18.29			91		73-124		
Ethylbenzene	20	17.97			90		80-120		
Isopropylbenzene	20	17.21			86		80-120		
Methyl Tertiary Butyl Ether	20	18.48			92		69-122		
Toluene	20	17.89			89		80-120		
1,2,4-Trimethylbenzene	20	17.24			86		75-120		
1,3,5-Trimethylbenzene	20	17.25			86		75-120		
Xylene (Total)	60	53.07			88		80-120		
Batch number: F193184AA	Sample number(s): 1194619-1194620,1194623,1194627								
Benzene	20	19.14			96		80-120		
1,2-Dichloroethane	20	18.9			95		73-124		
Ethylbenzene	20	18.51			93		80-120		
Isopropylbenzene	20	17.94			90		80-120		
Methyl Tertiary Butyl Ether	20	19.14			96		69-122		
Toluene	20	18.18			91		80-120		
1,2,4-Trimethylbenzene	20	18.71			94		75-120		
1,3,5-Trimethylbenzene	20	18.66			93		75-120		
Xylene (Total)	60	54.53			91		80-120		
Batch number: F193185AA	Sample number(s): 1194608-1194614								
Benzene	20	18.89			94		80-120		
t-Butyl alcohol	200	167.91			84		60-130		
1,2-Dichloroethane	20	18.63			93		73-124		
Ethylbenzene	20	18.12			91		80-120		
Isopropylbenzene	20	17.97			90		80-120		

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Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 01/02/2020 11:59

Group Number: 2073111

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Methyl Tertiary Butyl Ether	20	19.8			99		69-122		
Toluene	20	18.73			94		80-120		
1,2,4-Trimethylbenzene	20	18.35			92		75-120		
1,3,5-Trimethylbenzene	20	18.53			93		75-120		
Xylene (Total)	60	54.12			90		80-120		
Batch number: F193211AA	Sample number(s): 1194610,1194612,1194617								
Benzene	20	19.39			97		80-120		
t-Butyl alcohol	200	166.9			83		60-130		
1,2-Dichloroethane	20	18.23			91		73-124		
Ethylbenzene	20	18.38			92		80-120		
Isopropylbenzene	20	17.45			87		80-120		
Methyl Tertiary Butyl Ether	20	19.54			98		69-122		
Toluene	20	18.27			91		80-120		
1,2,4-Trimethylbenzene	20	18.01			90		75-120		
1,3,5-Trimethylbenzene	20	18.16			91		75-120		
Xylene (Total)	60	53.68			89		80-120		
	ug/l	ug/l	ug/l	ug/l					
Batch number: 19311WAF026	Sample number(s): 1194606,1194618-1194623								
Anthracene	50	42.18	50	44.47	84	89	62-116	5	30
Benzo(a)anthracene	50	46.97	50	48.76	94	98	70-118	4	30
Benzo(a)pyrene	50	45.43	50	48.16	91	96	71-117	6	30
Benzo(b)fluoranthene	50	47.71	50	51.44	95	103	71-115	8	30
Benzo(g,h,i)perylene	50	40.67	50	49.24	81	98	60-119	19	30
Chrysene	50	43.36	50	46.59	87	93	69-116	7	30
Fluorene	50	41.65	50	35.36	83	71	56-115	16	30
Naphthalene	50	38.42	50	39.47	77	79	45-105	3	30
Phenanthrene	50	43.57	50	44.64	87	89	65-113	2	30
Pyrene	50	42.43	50	44.11	85	88	65-115	4	30
Batch number: 19312WAG026	Sample number(s): 1194607,1194615-1194616,1194624-1194627								
Anthracene	50	40.02			80		62-116		
Benzo(a)anthracene	50	44.02			88		70-118		
Benzo(a)pyrene	50	40.63			81		71-117		
Benzo(b)fluoranthene	50	43.02			86		71-115		
Benzo(g,h,i)perylene	50	40.77			82		60-119		
Chrysene	50	41.53			83		69-116		
Fluorene	50	36.61			73		56-115		
Naphthalene	50	33.66			67		45-105		
Phenanthrene	50	40.51			81		65-113		
Pyrene	50	40.59			81		65-115		
Batch number: 19315WAF026	Sample number(s): 1194608-1194614								
Anthracene	50	45.38	50	45.75	91	92	62-116	1	30

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Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 01/02/2020 11:59

Group Number: 2073111

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Benzo(a)anthracene	50	49.57	50	49.22	99	98	70-118	1	30
Benzo(a)pyrene	50	45.65	50	44.44	91	89	71-117	3	30
Benzo(b)fluoranthene	50	45.33	50	46.31	91	93	71-115	2	30
Benzo(g,h,i)perylene	50	44.74	50	44.1	89	88	60-119	1	30
Chrysene	50	47.38	50	44.81	95	90	69-116	6	30
Fluorene	50	37.03	50	39.77	74	80	56-115	7	30
Naphthalene	50	36.29	50	37.56	73	75	45-105	3	30
Phenanthrene	50	45.94	50	46.03	92	92	65-113	0	30
Pyrene	50	44.59	50	41.75	89	83	65-115	7	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 193110023A	Sample number(s): 1194606-1194610								
Ethylene dibromide	0.128	0.164	0.128	0.161	128	126	60-140	2	20
Batch number: 193110024A	Sample number(s): 1194611-1194627								
Ethylene dibromide	0.128	0.169	0.128	0.151	132	118	60-140	11	20
	ug/l	ug/l	ug/l	ug/l					
Batch number: 193131404701A	Sample number(s): 1194609,1194618,1194623-1194624,1194626								
Lead	5.00	5.22			104		90-110		
Batch number: 193131404702A	Sample number(s): 1194606-1194608,1194610-1194612,1194616,1194619-1194622,1194625								
Lead	5.00	5.18			104		90-110		
Batch number: 193131404703A	Sample number(s): 1194613-1194615,1194627								
Lead	5.00	5.24			105		90-110		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: F193174AA	Sample number(s): 1194606,1194618 UNSPK: P192875									
Benzene	N.D.	20	19.17	20	19.5	96	97	80-120	2	30
t-Butyl alcohol	N.D.	200	225.9	200	224.42	113	112	60-130	1	30
1,2-Dichloroethane	N.D.	20	18.97	20	19.2	95	96	73-124	1	30
Ethylbenzene	N.D.	20	18.5	20	19.11	93	96	80-120	3	30
Isopropylbenzene	N.D.	20	17.78	20	18.31	89	92	80-120	3	30
Methyl Tertiary Butyl Ether	N.D.	20	18.84	20	18.9	94	94	69-122	0	30
Toluene	N.D.	20	18.02	20	18.71	90	94	80-120	4	30
1,2,4-Trimethylbenzene	N.D.	20	17.29	20	17.73	86	89	75-120	3	30

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Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 01/02/2020 11:59

Group Number: 2073111

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
1,3,5-Trimethylbenzene	N.D.	20	17.39	20	17.63	87	88	75-120	1	30
Xylene (Total)	N.D.	60	53.54	60	54.84	89	91	80-120	2	30
Batch number: F193181AA	Sample number(s): 1194607,1194615-1194616,1194624-1194626 UNSPK: P196888									
Benzene	N.D.	20	19.52	20	19.87	98	99	80-120	2	30
1,2-Dichloroethane	N.D.	20	19.55	20	19.36	98	97	73-124	1	30
Ethylbenzene	N.D.	20	19.02	20	19.3	95	96	80-120	1	30
Isopropylbenzene	N.D.	20	18.49	20	18.64	92	93	80-120	1	30
Methyl Tertiary Butyl Ether	N.D.	20	19.18	20	19.34	96	97	69-122	1	30
Toluene	N.D.	20	19.1	20	19.08	96	95	80-120	0	30
1,2,4-Trimethylbenzene	N.D.	20	18.56	20	18.56	93	93	75-120	0	30
1,3,5-Trimethylbenzene	N.D.	20	18.54	20	18.64	93	93	75-120	1	30
Xylene (Total)	N.D.	60	56.27	60	56.45	94	94	80-120	0	30
Batch number: F193184AA	Sample number(s): 1194619-1194620,1194623,1194627 UNSPK: P195815									
Benzene	N.D.	20	20.13	20	20.15	101	101	80-120	0	30
1,2-Dichloroethane	N.D.	20	19.08	20	18.91	95	95	73-124	1	30
Ethylbenzene	N.D.	20	19.48	20	19.32	97	97	80-120	1	30
Isopropylbenzene	N.D.	20	18.89	20	18.67	94	93	80-120	1	30
Methyl Tertiary Butyl Ether	N.D.	20	19.31	20	19.34	97	97	69-122	0	30
Toluene	N.D.	20	19.43	20	19.17	97	96	80-120	1	30
1,2,4-Trimethylbenzene	N.D.	20	18.46	20	19.24	92	96	75-120	4	30
1,3,5-Trimethylbenzene	N.D.	20	18.61	20	19.21	93	96	75-120	3	30
Xylene (Total)	N.D.	60	57.02	60	56.12	95	94	80-120	2	30
Batch number: F193185AA	Sample number(s): 1194608-1194614 UNSPK: P198226									
Benzene	N.D.	20	20.57	20	20.17	103	101	80-120	2	30
t-Butyl alcohol	N.D.	200	172.08	200	167.67	86	84	60-130	3	30
1,2-Dichloroethane	N.D.	20	20.05	20	19.42	100	97	73-124	3	30
Ethylbenzene	N.D.	20	19.49	20	19.08	97	95	80-120	2	30
Isopropylbenzene	N.D.	20	18.74	20	18.87	94	94	80-120	1	30
Methyl Tertiary Butyl Ether	0.248	20	21.64	20	21.71	107	107	69-122	0	30
Toluene	N.D.	20	19.87	20	19.69	99	98	80-120	1	30
1,2,4-Trimethylbenzene	N.D.	20	18.87	20	19.29	94	96	75-120	2	30
1,3,5-Trimethylbenzene	N.D.	20	19.21	20	19.26	96	96	75-120	0	30
Xylene (Total)	N.D.	60	56.63	60	57.13	94	95	80-120	1	30
Batch number: F193211AA	Sample number(s): 1194610,1194612,1194617 UNSPK: P194939									
Benzene	2.22	20	22.43	20	22.74	101	103	80-120	1	30
t-Butyl alcohol	N.D.	200	159.82	200	165.74	80	83	60-130	4	30
1,2-Dichloroethane	N.D.	20	18.49	20	18.91	92	95	73-124	2	30
Ethylbenzene	3.79	20	22.98	20	23.53	96	99	80-120	2	30
Isopropylbenzene	0.401	20	19.22	20	19.45	94	95	80-120	1	30
Methyl Tertiary Butyl Ether	N.D.	20	19.46	20	19.78	97	99	69-122	2	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P####### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

REVISED

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 01/02/2020 11:59

Group Number: 2073111

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Toluene	1.62	20	20.63	20	21.08	95	97	80-120	2	30
1,2,4-Trimethylbenzene	3.80	20	23.03	20	23.57	96	99	75-120	2	30
1,3,5-Trimethylbenzene	0.998	20	19.95	20	20.24	95	96	75-120	1	30
Xylene (Total)	9.78	60	65.39	60	67.64	93	96	80-120	3	30
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 19312WAG026	Sample number(s): 1194607,1194615-1194616,1194624-1194627 UNSPK: P195799									
Anthracene	N.D.	50.61	38.29	50.61	41.24	76	81	62-112	7	30
Benzo(a)anthracene	N.D.	50.61	40.4	50.61	43.16	80	85	70-118	7	30
Benzo(a)pyrene	N.D.	50.61	40.27	50.61	41.45	80	82	71-117	3	30
Benzo(b)fluoranthene	N.D.	50.61	40.05	50.61	43.52	79	86	71-115	8	30
Benzo(g,h,i)perylene	N.D.	50.61	39.5	50.61	42.19	78	83	60-119	7	30
Chrysene	N.D.	50.61	37.1	50.61	41.15	73	81	69-116	10	30
Fluorene	1.49	50.61	37.54	50.61	41.12	71	78	56-115	9	30
Naphthalene	N.D.	50.61	33.95	50.61	36.04	67	71	45-105	6	30
Phenanthrene	N.D.	50.61	39.34	50.61	41.33	78	82	65-113	5	30
Pyrene	N.D.	50.61	37.27	50.61	39.52	74	78	65-115	6	30
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 193110024A	Sample number(s): 1194611-1194627 UNSPK: 1194611									
Ethylene dibromide	N.D.	0.121	0.166			137		60-140		
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 193131404701A	Sample number(s): 1194609,1194618,1194623-1194624,1194626 UNSPK: 1194623									
Lead	0.0952	5.00	5.47	5.00	5.27	108	103	75-125	4	20
Batch number: 193131404702A	Sample number(s): 1194606-1194608,1194610-1194612,1194616,1194619-1194622,1194625 UNSPK: 1194612									
Lead	0.0733	5.00	5.22	5.00	5.29	103	104	75-125	1	20
Batch number: 193131404703A	Sample number(s): 1194613-1194615,1194627 UNSPK: P195167									
Lead	0.200	5.00	5.49	5.00	5.51	106	106	75-125	0	20

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc ug/l	DUP Conc ug/l	DUP RPD	DUP RPD Max
Batch number: 193110024A	Sample number(s): 1194611-1194627 BKG: 1194612			

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

REVISED

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 01/02/2020 11:59

Group Number: 2073111

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc	DUP Conc	DUP RPD	DUP RPD Max
	ug/l	ug/l		
Ethylene dibromide	N.D.	N.D.	0 (1)	30
	ug/l	ug/l		
Batch number: 193131404701A	Sample number(s): 1194609,1194618,1194623-1194624,1194626 BKG: 1194623			
Lead	0.0952	0.111	15 (1)	20
Batch number: 193131404702A	Sample number(s): 1194606-1194608,1194610-1194612,1194616,1194619-1194622,1194625 BKG: 1194612			
Lead	0.0733	0.0800	9 (1)	20
Batch number: 193131404703A	Sample number(s): 1194613-1194615,1194627 BKG: P195167			
Lead	0.200	0.189	5 (1)	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: F193174AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1194606	99	96	100	100
1194618	95	95	101	107
Blank	98	94	99	96
LCS	97	96	100	98
MS	96	96	99	98
MSD	97	98	101	102
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: F193175AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1194619	95	92	100	100
1194620	95	92	100	108
1194621	96	94	100	101
1194622	95	95	99	99
1194623	95	93	100	100
Blank	97	95	100	98
LCS	94	95	100	99
LCSD	97	96	98	99

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(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

REVISED

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 01/02/2020 11:59

Group Number: 2073111

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: F193175AA

Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TMBs
Batch number: F193181AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1194607	97	92	99	105
1194615	96	95	99	102
1194616	98	95	101	113
1194624	97	94	101	99
1194625	98	94	100	98
1194626	97	94	100	99
Blank	98	94	100	98
LCS	96	98	101	102
MS	98	97	100	100
MSD	97	97	101	100
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TMBs
Batch number: F193184AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1194627	97	94	101	101
Blank	96	95	100	99
LCS	98	95	100	100
MS	97	97	101	100
MSD	97	96	100	101
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: F193185AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1194608	97	93	99	104
1194609	96	94	99	108
1194610	96	94	101	99
1194611	93	91	100	102
1194612	96	94	101	109
1194613	95	92	100	93
1194614	97	94	99	99
Blank	97	95	101	99
LCS	97	96	99	100
MS	97	97	99	99

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.
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REVISED

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 01/02/2020 11:59

Group Number: 2073111

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: F193185AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
MSD	96	94	99	100
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TMBs
Batch number: F193211AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1194617	98	93	100	101
Blank	97	96	100	101
LCS	98	96	100	102
MS	98	100	100	102
MSD	98	96	101	103
Limits:	80-120	80-120	80-120	80-120

Analysis Name: PAHs 8270C MINI
Batch number: 19311WAF026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
1194606	66	58	62
1194618	65	55	60
1194619	57	50	58
1194620	63	55	63
1194621	63	57	69
1194622	78	66	62
1194623	66	55	56
Blank	61	47	72
LCS	91	63	72
LCSD	83	66	80
Limits:	33-113	44-102	39-125

Analysis Name: PAHs 8270C MINI
Batch number: 19312WAG026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
1194607	64	52	59
1194615	58	57	58
1194616	60	55	65
1194624	66	61	60
1194625	68	64	64
1194626	58	54	63
1194627	58	52	56
Blank	76	70	74

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

REVISED

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 01/02/2020 11:59

Group Number: 2073111

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PAHs 8270C MINI
Batch number: 19312WAG026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
LCS	74	62	74
MS	68	62	61
MSD	74	68	64
Limits:	33-113	44-102	39-125

Analysis Name: PAHs 8270C MINI
Batch number: 19315WAF026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
1194608	54	66	42
1194609	52	59	54
1194610	48	62	51
1194611	65	77	57
1194612	63	77	73
1194613	60	66	62
1194614	66	74	60
Blank	67	81	72
LCS	71	89	89
LCSD	71	79	79
Limits:	33-113	44-102	39-125

Analysis Name: EDB in Wastewater
Batch number: 193110023A

	1,1,2,2-Tetrachloroethane-D1	1,1,2,2-Tetrachloroethane-D2
1194606	89	90
1194607	91	92
1194608	96	94
1194609	118	123
1194610	104	94
Blank	89	90
LCS	87	87
LCSD	89	89
Limits:	46-136	46-136

Analysis Name: EDB in Wastewater
Batch number: 193110024A

	1,1,2,2-Tetrachloroethane-D1	1,1,2,2-Tetrachloroethane-D2
1194611	113	101
1194612	96	117
1194613	96	94

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
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P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

REVISED

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 01/02/2020 11:59

Group Number: 2073111

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: EDB in Wastewater
Batch number: 193110024A

	1,1,2,2-Tetrachloroethane-D1	1,1,2,2-Tetrachloroethane-D2
1194614	90	91
1194615	91	100
1194616	91	102
1194617	83	86
1194618	94	97
1194619	89	92
1194620	98	93
1194621	99	96
1194622	109	107
1194623	90	90
1194624	90	89
1194625	83	83
1194626	92	92
1194627	92	91
Blank	86	85
DUP	95	114
LCS	91	91
LCSD	82	86
MS	100	108
Limits:	46-136	46-136

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Environmental Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

Acct. # 16657 Group # 2073111 Sample # 1194606-627

Client:	Evergreen c/o Stantec		
Project Name/#:	PHL 2019Q4 GWS	Site ID #:	PHL Refinery
Project Manager:	Andrew Bradley	P.O. #:	213402429
Sampler:	Doulton Campbell / Ian Andrea	PWSID #:	
Phone #:	610.840.2541	Quote #:	
State where sample(s) were collected:	PA		

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Sediment	Water: Potable	Ground	NPDES	Surface	Other:	Total # of Containers	Evergreen Short List VOC (8260)	EDB 8011	Dissolved Lead (field filtered)	PAH 8270	TBA 8260
B-43_20191101	11/01	1325	X					☑				8	X	X	X	X	
B-39-SL20191104	11/04	1360	X					☑				8	X	X	X	X	
S-355-SL_20191105	11/05	1005	X					☑				6	X	X	X	X	X
S-423-SL_20191105	11/05	1340	X					☑				6	X	X	X	X	X

Analyses Requested

Preservation Codes

For Lab Use Only

SF #:

SCR #:

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

Remarks

*For list of analytes refer to attached Evergreen Short List

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐

(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed:

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: abradley@stantec.com

Phone: 610.840.2541

Data Package Options (please check if required)

Type I (Validation/non-CLP) ☐ MA MCP ☐

Type III (Reduced non-CLP) ☐ CT RCP ☐

Type IV (CLP SOW) ☐ TX TRRP-13 ☐

Type VI (Raw Data Only) ☐

EDD Required? Yes ☑ No ☐ If yes, format: EQUIS

Relinquished by:	Date	Time	Received by:	Date	Time
Doulton Campbell			Pierre	11/6/19	13:10
Pierre	11/6/19	18:3			
			Ethan	11-6-19	1924

Relinquished by Commercial Carrier: X

UPS ____ FedEx ____ Other ____

Temperature upon receipt 0.2 °C

Environmental Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

For Eurofins Lancaster Laboratories Environmental use only

Acct. # 16657 Group # 2073111 Sample # 1194606-697

COC #594867

Client Information

Client: STANTEC	Acct. #: EVERGREEN 16657 STANTEC
Project Name/#: 2019 Q4 GWS PHC	PWSID #:
Project Manager: Jennifer Menges	P.O. #: 213402429
Sampler: Charles, ALAINA SIMONS & Ian Andrec	Quote #:
State where samples were collected:	For Compliance: Yes ☐ No ☐

Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: Trip Blank

Analysis Requested — Preservation and Filtration Codes

For Lab Use Only: FSC: ____ SCR#: ____

Preservation Codes: H=HCl, T=Thiosulfate, N=HNO_3, B=NaOH, S=H_2SO_4, P=H_3PO_4, F=Field Filtered, O=Other

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Water	Other	Total # of Containers	EVERGREEN VOC 8260 (H)	EDB 8011	DISSOLVED LOAD FIELD FILTERED	PAH 8270	TBA 8260						Remarks
~~818~~ S-396-20191101	11/05/19	1240	X			X		8	X	X	X	X	X						
S-418-20191101	11/05/19	1400	X			X		8	X	X	X	X	X						
S-377-20191105	11/05/19	1055	X			X		8	X	X	X	X	X						
B-156-20191105	11/05/19	1300	X			X		~~8~~ 7	X	X	X	X							1 voc bottle broke
B-172-20191105	11/05/19	1408	X			X		8	X	X	X	X							
B-165-20191104	11/4/19	1145	X			X		8	X	X	X	X							
B-170-20191104	11/4/19	1320	X			X		8	X	X	X	X							
Trip Blank	11/6/19	—					X	2	X	X									

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: ____

E-mail address: Jennifer.Menges@stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)
Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13
NYSDEC Category A or B | MA MCP | CT RCP

Relinquished by	Date	Time	Received by	Date	Time
[signature]	11/6/19		Pierre	11/4/19	13:10
Pierre	11-6-19	18:30			
			[signature]	11-6-19	1924

EDD Required? Yes No
If yes, format: EQUIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other X

Temperature upon receipt 0.2 °C

Environmental Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

For Eurofins Lancaster Laboratories Environmental use only
Acct. # 16657 Group # 2073111 Sample # 1194606-627

COC # 594868

Client Information

Client: EVERGREEN C/O STANTEC | Acct. #: 16657
Project Name/#: PHL 2019 Q4 GWS | PWSID #:
Project Manager: JENNIFER MENGES | P.O. #: 213402429
Sampler: IAN ANDREE | Quote #:
State where samples were collected: PA | For Compliance: Yes ☐ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ | Water ☒ Potable ☐ Ground ☐ NPDES ☐ Surface ☐ | Other: ____

Analysis Requested

Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	EVERGREEN VOC 8260 (H)	EDB 8011 (H)	DISSOLVED LEAD * (N)	PAH 8270	PBA 8260 (H)
S-398_20191101	11/1/19	0930	X		8	X	X	X	X	X
ARCO-1D_20191101	11/1/19	1144	X		8	X	X	X	X	X
ARCO-1_20191101	11/1/19	1252	X		8	X	X	X	X	X
ARCO-2_20191101	11/1/19	1350	X		8	X	X	X	X	X
ARCO-3_20191101	11/1/19	1438	X		8	X	X	X	X	X
DUP-3_20191101	11/1/19	—	X		8	X	X	X	X	X
A-139_20191104	11/4/19	1020	X		6	X	X	X	X	
A-140_20191104	11/4/19	1055	X		6	X	X	X	X	
A-182_20191104	11/4/19	1233	X		6	X	X	X	X	
B-169_20191104	11/4/19	1332	X		8	X	X	X	X	

For Lab Use Only

FSC: ____
SCR#: 250210

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks

* FIELD-FILTERED
* SEE SEPARATE SHEET FOR EVERGREEN SHORT LIST ANALYTES

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: STANDARD

E-mail address: JENNIFER.MENGES@STANTEC.COM

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)
Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13
NYSDEC Category A or B | MA MCP | CT RCP

	Date	Time	Received by	Date	Time
Relinquished by	11/6/19	1310	Received by	11/6/19	1340
Relinquished by	11-7-19	1630	Received by		
Relinquished by			Received by		
Relinquished by			Received by		
Relinquished by			Received by	11-6-19	1923

EDD Required? Yes No
If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:
UPS ____ FedEx ____ Other ____

Temperature upon receipt ____ °C

2073111

Table 1
Evergreen Petroleum Short List of Constituents of Concern

VOCs by EPA Method 8260	CAS No.
Benzene	71-43-2
Cumene	98-82-8
Dichloroethane, 1,2-	107-06-2
Ethylbenzene	100-41-4
Ethylene Dibromide*	106-93-4
Methyl tert butyl ether	1634-04-4
Toluene	108-88-3
Trimethylbenzene, 1,2,4-	95-63-6
Trimethylbenzene, 1,3,5-	108-67-8
Xylenes	1330-20-7

SVOCs by EPA Method 8270	CAS No.
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Chrysene	218-01-9
Fluorene	86-73-7
Naphthalene**	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Metals by Method 6010/6020	CAS No.
Lead***	7439-92-1

*Ethylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.
**Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.
***Metals analysis should be total in soil and dissolved in groundwater.

This list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline and No. 1, 2, 4, 5, 6 Fuel Oils).

Stantec

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Sample Administration Receipt Documentation Log

Doc Log ID: 265498

Group Number(s): 2073111

Client: EVERGREEN c/o STANTEC

Delivery and Receipt Information

Delivery Method:	ELLE Courier	Arrival Date:	11/06/2019
Number of Packages:	3	Number of Projects:	3
State/Province of Origin:	PA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	Total Trip Blank Qty:	2
Paperwork Enclosed:	Yes	Trip Blank Type:	HCL
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Jessenia Colon Martinez

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Matrix	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	Water	DT42-01	0.2	DT	Wet	Y	Loose	N
2	Water	DT42-01	0.4	DT	Wet	Y	Loose	N
3	Water	192050133	2.8	IR	Wet	Y	Loose	N

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report
B	Detection in the Method Blank
Q0	LCS/LCSD Low
Q1	LCS/LCSD High
Q2	MS/MSD Low
Q3	MS/MSD High
Q7	LCS/LCSD RPD
Q8	DUP RPD
Q9	MS/MSD RPD

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Evergreen c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

Report Date: January 02, 2020 12:05

Project: 2019 Q4 GWS PHL

Account #: 16657
Group Number: 2075960
PO Number: 213402429
State of Sample Origin: PA

Electronic Copy To	Evergreen c/o Stantec	Attn: Jennifer Menges
Electronic Copy To	Evergreen c/o Stantec	Attn: Andrew Bradley

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

A previous version of this report was generated on 12/06/2019 08:12.

To view our laboratory's current scopes of accreditation please go to https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/ . Historical copies may be requested through your project manager.

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
S-357-SL_20191115 Grab Groundwater	11/15/2019 13:55	1208188
S-277-SL_20191118 Grab Groundwater	11/18/2019 11:20	1208189
S-22_20191118 Grab Groundwater	11/18/2019 15:00	1208190
W-1-SL_20191119 Grab Groundwater	11/19/2019 10:55	1208191
W-32-SL_20191119 Grab Groundwater	11/19/2019 10:55	1208192
DUP-7_20191119 Grab Groundwater	11/19/2019 14:00	1208193
W-33_20191120 Grab Groundwater	11/20/2019 10:45	1208194
OW-19-SL_20191120 Grab Groundwater	11/20/2019 13:10	1208195
Trip Blank Water	06/05/2019	1208196
WP-C_20191115 Grab Groundwater	11/15/2019 13:35	1208197
S-337-SL_20191118 Grab Groundwater	11/18/2019 13:40	1208198
W-13_20191119 Grab Groundwater	11/19/2019 10:40	1208199
W-12_20191119 Grab Groundwater	11/19/2019 11:40	1208200
W-32D_20191119 Grab Groundwater	11/19/2019 14:15	1208201
S-376_20191120 Grab Groundwater	11/20/2019 10:00	1208202

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

REVISED

Sample Description: **S-357-SL_20191115 Grab Groundwater**
2019 Q4 GWS PHL

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/21/2019 16:53
Collection Date/Time: 11/15/2019 13:55

Evergreen c/o Stantec
ELLE Sample #: GW 1208188
ELLE Group #: 2075960
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	1	0.2	1
10945	t-Butyl alcohol	75-65-0	26	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	0.3 J	0.2	1
10945	Isopropylbenzene	98-82-8	9	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	1	0.2	1
10945	Toluene	108-88-3	0.5 J	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	1 J	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	0.8	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	3	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.094	10
	The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and no target analytes were detected, the data is reported.				
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.58	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/TMBs	SW-846 8260B	1	D193311AA	11/27/2019 15:16	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193311AA	11/27/2019 15:15	Kevin A Sposito	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19326WAE026	11/29/2019 18:38	Ashley R Transue	1
07807	BNA Water Extraction	SW-846 3510C	1	19326WAE026	11/22/2019 18:07	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193290018A	11/27/2019 20:21	Jason Brumbaugh	10
07786	EDB Extraction (8011)	SW-846 8011	1	193290018A	11/27/2019 02:00	Mathias Okpo	1

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Sample Description: **S-357-SL_20191115 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/21/2019 16:53
Collection Date/Time: 11/15/2019 13:55

Evergreen c/o Stantec
ELLE Sample #: GW 1208188
ELLE Group #: 2075960
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	193291404708A	12/03/2019 13:24	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193291404708	11/29/2019 03:06	James L Mertz	1

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Sample Description: S-277-SL_20191118 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 11/21/2019 16:53
Collection Date/Time: 11/18/2019 11:20

Evergreen c/o Stantec
ELLE Sample #: GW 1208189
ELLE Group #: 2075960
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	1,300	10	50
10945	t-Butyl alcohol	75-65-0	68,000	5,000	500
10945	1,2-Dichloroethane	107-06-2	N.D.	10	5
10945	Ethylbenzene	100-41-4	130	1	5
10945	Isopropylbenzene	98-82-8	61	2	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	310	1	5
10945	Toluene	108-88-3	160	1	5
10945	1,2,4-Trimethylbenzene	95-63-6	100	2	5
10945	1,3,5-Trimethylbenzene	108-67-8	48	2	5
10945	Xylene (Total)	1330-20-7	650	4	5
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	2	0.1	1
14249	Naphthalene	91-20-3	17	0.1	1
14249	Phenanthrene	85-01-8	2	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	16.0	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	D193312AA	11/27/2019 20:40	Kevin A Sposito	5
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	D193312AA	11/27/2019 21:03	Kevin A Sposito	50
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	D193322AA	11/28/2019 17:24	Alexander D Sechrist	500
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193312AA	11/27/2019 20:39	Kevin A Sposito	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	D193312AA	11/27/2019 21:02	Kevin A Sposito	50
01163	GC/MS VOA Water Prep	SW-846 5030B	3	D193322AA	11/28/2019 17:23	Alexander D Sechrist	500
14249	PAHs 8270C MINI	SW-846 8270C	1	19326WAE026	11/29/2019 19:06	Ashley R Transue	1
07807	BNA Water Extraction	SW-846 3510C	1	19326WAE026	11/22/2019 18:07	Laura Duquette	1

REVISED

Sample Description: **S-277-SL_20191118 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/21/2019 16:53
Collection Date/Time: 11/18/2019 11:20

Evergreen c/o Stantec
ELLE Sample #: GW 1208189
ELLE Group #: 2075960
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10398	EDB in Wastewater	SW-846 8011	1	193290018A	11/27/2019 20:37	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193290018A	11/27/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193291404708A	12/03/2019 13:26	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193291404708	11/29/2019 03:06	James L Mertz	1

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Sample Description: S-22_20191118 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 11/21/2019 16:53
Collection Date/Time: 11/18/2019 15:00

Evergreen c/o Stantec
ELLE Sample #: GW 1208190
ELLE Group #: 2075960
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
	Project defined continuing calibration verification criteria are not met. The continuing calibration verification is compliant with the method defined criteria.				
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.28 J	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/TMBs	SW-846 8260B	1	D193312AA	11/27/2019 19:52	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193312AA	11/27/2019 19:51	Kevin A Sposito	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19326WAE026	11/29/2019 19:35	Ashley R Transue	1
07807	BNA Water Extraction	SW-846 3510C	1	19326WAE026	11/22/2019 18:07	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193290018A	11/27/2019 20:54	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193290018A	11/27/2019 02:00	Mathias Okpo	1

REVISED

Sample Description: **S-22_20191118 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/21/2019 16:53
Collection Date/Time: 11/18/2019 15:00

Evergreen c/o Stantec
ELLE Sample #: GW 1208190
ELLE Group #: 2075960
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	193291404708A	12/04/2019 09:14	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193291404708	11/29/2019 03:06	James L Mertz	1

REVISED

Sample Description: W-1-SL_20191119 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 11/21/2019 16:53
Collection Date/Time: 11/19/2019 10:55

Evergreen c/o Stantec
ELLE Sample #: GW 1208191
ELLE Group #: 2075960
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.7 J	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	1	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1
	Project defined continuing calibration verification criteria are not met. The continuing calibration verification is compliant with the method defined criteria.				
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	D193372AA	12/03/2019 11:46	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193372AA	12/03/2019 11:45	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19326WAE026	11/29/2019 20:04	Ashley R Transue	1
07807	BNA Water Extraction	SW-846 3510C	1	19326WAE026	11/22/2019 18:07	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193290018A	11/27/2019 21:11	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193290018A	11/27/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193291404708A	12/03/2019 13:28	Janeyah Rivers-Hamilton	1

REVISED

Sample Description: **W-1-SL_20191119 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/21/2019 16:53
Collection Date/Time: 11/19/2019 10:55

Evergreen c/o Stantec
ELLE Sample #: GW 1208191
ELLE Group #: 2075960
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193291404708	11/29/2019 03:06	James L Mertz	1

REVISED

Sample Description: W-32-SL_20191119 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 11/21/2019 16:53
Collection Date/Time: 11/19/2019 10:55

Evergreen c/o Stantec
ELLE Sample #: GW 1208192
ELLE Group #: 2075960
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	16	0.2	1
10945	1,2-Dichloroethane	107-06-2	2 J	2	1
10945	Ethylbenzene	100-41-4	9	0.2	1
10945	Isopropylbenzene	98-82-8	3 J	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	10	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	39	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	13	0.3	1
10945	Xylene (Total)	1330-20-7	130	0.8	1
	Preservation requirements were not met. A preserved vial was submitted for analysis. However, the pH at the time of analysis was 7.				
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	4	0.1	1
14249	Naphthalene	91-20-3	6	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	2	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0093	1
	Project defined continuing calibration verification criteria are not met. The continuing calibration verification is compliant with the method defined criteria.				
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	16.9	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	D193372AA	12/03/2019 12:59	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193372AA	12/03/2019 12:58	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19326WAE026	11/29/2019 20:33	Ashley R Transue	1
07807	BNA Water Extraction	SW-846 3510C	1	19326WAE026	11/22/2019 18:07	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193290018A	11/27/2019 21:28	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193290018A	11/27/2019 02:00	Mathias Okpo	1

REVISED

Sample Description: **W-32-SL_20191119 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/21/2019 16:53
Collection Date/Time: 11/19/2019 10:55

Evergreen c/o Stantec
ELLE Sample #: GW 1208192
ELLE Group #: 2075960
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	193361404705A	12/04/2019 18:44	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193361404705	12/03/2019 13:35	JoElla L Rice	1

REVISED

Sample Description: DUP-7_20191119 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 11/21/2019 16:53
Collection Date/Time: 11/19/2019 14:00

Evergreen c/o Stantec
ELLE Sample #: GW 1208193
ELLE Group #: 2075960
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.8 J	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	1	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
	Project defined continuing calibration verification criteria are not met. The continuing calibration verification is compliant with the method defined criteria.				
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	D193372AA	12/03/2019 13:23	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193372AA	12/03/2019 13:22	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19326WAE026	11/29/2019 21:01	Ashley R Transue	1
07807	BNA Water Extraction	SW-846 3510C	1	19326WAE026	11/22/2019 18:07	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193290018A	11/27/2019 21:45	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193290018A	11/27/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193291404708A	12/03/2019 13:30	Janeyah Rivers-Hamilton	1

REVISED

Sample Description: **DUP-7_20191119 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/21/2019 16:53
Collection Date/Time: 11/19/2019 14:00

Evergreen c/o Stantec
ELLE Sample #: GW 1208193
ELLE Group #: 2075960
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193291404708	11/29/2019 03:06	James L Mertz	1

REVISED

Sample Description: W-33_20191120 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 11/21/2019 16:53
Collection Date/Time: 11/20/2019 10:45

Evergreen c/o Stantec
ELLE Sample #: GW 1208194
ELLE Group #: 2075960
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	100	1	5
10945	1,2-Dichloroethane	107-06-2	N.D.	10	5
10945	Ethylbenzene	100-41-4	6	1	5
10945	Isopropylbenzene	98-82-8	3 J	2	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	5
10945	Toluene	108-88-3	N.D.	1	5
10945	1,2,4-Trimethylbenzene	95-63-6	9 J	2	5
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	2	5
10945	Xylene (Total)	1330-20-7	19	4	5
	Reporting limits were raised due to sample foaming.				
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	4	0.1	1
14249	Benzo(a)anthracene	56-55-3	1	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	1	0.1	1
14249	Fluorene	86-73-7	12	0.1	1
14249	Naphthalene	91-20-3	22	0.1	1
14249	Phenanthrene	85-01-8	7	0.1	1
14249	Pyrene	129-00-0	4	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
	Project defined continuing calibration verification criteria are not met. The continuing calibration verification is compliant with the method defined criteria.				
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	18.0	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	Z193381AA	12/04/2019 12:41	Anita M Dale	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z193381AA	12/04/2019 12:40	Anita M Dale	5
14249	PAHs 8270C MINI	SW-846 8270C	1	19326WAE026	11/29/2019 21:30	Ashley R Transue	1
07807	BNA Water Extraction	SW-846 3510C	1	19326WAE026	11/22/2019 18:07	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193290018A	11/27/2019 22:02	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193290018A	11/27/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193291404708A	12/03/2019 13:32	Janeyah Rivers-Hamilton	1

REVISED

Sample Description: **W-33_20191120 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/21/2019 16:53
Collection Date/Time: 11/20/2019 10:45

Evergreen c/o Stantec
ELLE Sample #: GW 1208194
ELLE Group #: 2075960
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193291404708	11/29/2019 03:06	James L Mertz	1

REVISED

Sample Description: OW-19-SL_20191120 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 11/21/2019 16:53
Collection Date/Time: 11/20/2019 13:10

Evergreen c/o Stantec
ELLE Sample #: GW 1208195
ELLE Group #: 2075960
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	6,300	20	100
10945	t-Butyl alcohol	75-65-0	15,000	1,000	100
10945	1,2-Dichloroethane	107-06-2	N.D.	20	10
10945	Ethylbenzene	100-41-4	440	2	10
10945	Isopropylbenzene	98-82-8	24 J	3	10
10945	Methyl Tertiary Butyl Ether	1634-04-4	13,000	20	100
10945	Toluene	108-88-3	5,500	20	100
10945	1,2,4-Trimethylbenzene	95-63-6	1,400	3	10
10945	1,3,5-Trimethylbenzene	108-67-8	470	3	10
10945	Xylene (Total)	1330-20-7	8,900	80	100
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	2	0.1	1
14249	Benzo(a)anthracene	56-55-3	2	0.1	1
14249	Benzo(a)pyrene	50-32-8	1	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	1	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	2	0.1	1
14249	Fluorene	86-73-7	4	0.1	1
14249	Naphthalene	91-20-3	160	0.5	5
14249	Phenanthrene	85-01-8	9	0.1	1
14249	Pyrene	129-00-0	4	0.1	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.

Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1

Project defined continuing calibration verification criteria are not met.
The continuing calibration verification is compliant with the method defined criteria.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	4.0	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193371AA	12/03/2019 20:44	Alexander D Sechrist	10
10945	BTEX/MTBE/Cumene/EDC/TBA/ TMBs	SW-846 8260B	1	F193371AA	12/03/2019 21:06	Alexander D Sechrist	100
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193371AA	12/03/2019 20:43	Alexander D Sechrist	10
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F193371AA	12/03/2019 21:05	Alexander D Sechrist	100

REVISED

Sample Description: **OW-19-SL_20191120 Grab Groundwater**
2019 Q4 GWS PHL

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/21/2019 16:53
Collection Date/Time: 11/20/2019 13:10

Evergreen c/o Stantec
ELLE Sample #: GW 1208195
ELLE Group #: 2075960
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14249	PAHs 8270C MINI	SW-846 8270C	1	19326WAE026	11/29/2019 21:59	Ashley R Transue	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19326WAE026	12/01/2019 20:28	Ashley R Transue	5
07807	BNA Water Extraction	SW-846 3510C	1	19326WAE026	11/22/2019 18:07	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193290018A	11/27/2019 22:52	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193290018A	11/27/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193291404708A	12/03/2019 13:38	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193291404708	11/29/2019 03:06	James L Mertz	1

REVISED

Sample Description: **Trip Blank Water**
2019 Q4 GWS PHL

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/21/2019 16:53
Collection Date/Time: 06/05/2019

Evergreen c/o Stantec
ELLE Sample #: GW 1208196
ELLE Group #: 2075960
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	N.D.	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	N.D.	0.8	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0096	1

The holding time was not met. The sample was submitted to the laboratory outside of the holding time.
Project defined continuing calibration verification criteria are not met.
The continuing calibration verification is compliant with the method defined criteria.

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F193311AA	11/27/2019 18:41	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193311AA	11/27/2019 18:40	Alexander D Sechrist	1
10398	EDB in Wastewater	SW-846 8011	1	193290018A	11/27/2019 23:09	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193290018A	11/27/2019 02:00	Mathias Okpo	1

REVISED

Sample Description: **WP-C_20191115 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/21/2019 16:53
Collection Date/Time: 11/15/2019 13:35

Evergreen c/o Stantec
ELLE Sample #: GW 1208197
ELLE Group #: 2075960
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	N.D.	0.2	1
10945	Isopropylbenzene	98-82-8	2 J	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	N.D.	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.3	1
10945	Xylene (Total)	1330-20-7	1 J	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	1	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0094	1
	The Quality Control data listed below is outside the project defined limits and outside the laboratory's statistically derived limits. CCV: ethylene dibromide.				
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	1.3	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	F193311AA	11/27/2019 19:03	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193311AA	11/27/2019 19:02	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19326WAE026	11/29/2019 22:27	Ashley R Transue	1
07807	BNA Water Extraction	SW-846 3510C	1	19326WAE026	11/22/2019 18:07	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193290019A	11/28/2019 02:49	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193290019A	11/27/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193291404708A	12/03/2019 13:40	Janeyah Rivers-Hamilton	1

REVISED

Sample Description: **WP-C_20191115 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/21/2019 16:53
Collection Date/Time: 11/15/2019 13:35

Evergreen c/o Stantec
ELLE Sample #: GW 1208197
ELLE Group #: 2075960
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193291404708	11/29/2019 03:06	James L Mertz	1

REVISED

Sample Description: S-337-SL_20191118 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 11/21/2019 16:53
Collection Date/Time: 11/18/2019 13:40

Evergreen c/o Stantec
ELLE Sample #: GW 1208198
ELLE Group #: 2075960
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	7	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	10	1
10945	1,2-Dichloroethane	107-06-2	N.D.	2	1
10945	Ethylbenzene	100-41-4	5	0.2	1
10945	Isopropylbenzene	98-82-8	54	0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.2	1
10945	Toluene	108-88-3	4	0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	1 J	0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	6	0.3	1
10945	Xylene (Total)	1330-20-7	2 J	0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	0.1 J	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	0.8	0.1	1
14249	Naphthalene	91-20-3	N.D.	0.1	1
14249	Phenanthrene	85-01-8	0.8	0.1	1
14249	Pyrene	129-00-0	0.3 J	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0096	1
	The Quality Control data listed below is outside the project defined limits and outside the laboratory's statistically derived limits. CCV: ethylene dibromide.				
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.17 J	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/TMBs	SW-846 8260B	1	D193312AA	11/27/2019 20:16	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193312AA	11/27/2019 20:15	Kevin A Sposito	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19326WAE026	12/01/2019 20:57	Ashley R Transue	1
07807	BNA Water Extraction	SW-846 3510C	1	19326WAE026	11/22/2019 18:07	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193290019A	11/28/2019 03:06	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193290019A	11/27/2019 02:00	Mathias Okpo	1

REVISED

Sample Description: **S-337-SL_20191118 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/21/2019 16:53
Collection Date/Time: 11/18/2019 13:40

Evergreen c/o Stantec
ELLE Sample #: GW 1208198
ELLE Group #: 2075960
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	193291404708A	12/04/2019 09:49	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193291404708	11/29/2019 03:06	James L Mertz	1

REVISED

Sample Description: W-13_20191119 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 11/21/2019 16:53
Collection Date/Time: 11/19/2019 10:40

Evergreen c/o Stantec
ELLE Sample #: GW 1208199
ELLE Group #: 2075960
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	
10945	Benzene	71-43-2	N.D.		0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.		2	1
10945	Ethylbenzene	100-41-4	N.D.		0.2	1
10945	Isopropylbenzene	98-82-8	N.D.		0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.4	J	0.2	1
10945	Toluene	108-88-3	N.D.		0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.		0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.		0.3	1
10945	Xylene (Total)	1330-20-7	N.D.		0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	
14249	Anthracene	120-12-7	N.D.		0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.		0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.		0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.		0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.		0.1	1
14249	Chrysene	218-01-9	N.D.		0.1	1
14249	Fluorene	86-73-7	N.D.		0.1	1
14249	Naphthalene	91-20-3	N.D.		0.1	1
14249	Phenanthrene	85-01-8	0.1	J	0.1	1
14249	Pyrene	129-00-0	N.D.		0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D.	D1	0.0094	1

The Quality Control data listed below is outside the project defined limits and outside the laboratory's statistically derived limits. CCV: ethylene dibromide.

Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	
06035	Lead	7439-92-1	N.D.	K2	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	D193372AA	12/03/2019 13:47	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193372AA	12/03/2019 13:46	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19326WAE026	12/01/2019 21:25	Ashley R Transue	1
07807	BNA Water Extraction	SW-846 3510C	1	19326WAE026	11/22/2019 18:07	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193290019A	11/28/2019 03:23	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193290019A	11/27/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193291404708A	12/03/2019 13:44	Janeyah Rivers-Hamilton	1

REVISED

Sample Description: **W-13_20191119 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/21/2019 16:53
Collection Date/Time: 11/19/2019 10:40

Evergreen c/o Stantec
ELLE Sample #: GW 1208199
ELLE Group #: 2075960
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193291404708	11/29/2019 03:06	James L Mertz	1

REVISED

Sample Description: **W-12_20191119 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/21/2019 16:53
Collection Date/Time: 11/19/2019 11:40

Evergreen c/o Stantec
ELLE Sample #: GW 1208200
ELLE Group #: 2075960
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	
10945	Benzene	71-43-2	N.D.		0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.		2	1
10945	Ethylbenzene	100-41-4	N.D.		0.2	1
10945	Isopropylbenzene	98-82-8	N.D.		0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.2	1
10945	Toluene	108-88-3	N.D.		0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.		0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.		0.3	1
10945	Xylene (Total)	1330-20-7	N.D.		0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	
14249	Anthracene	120-12-7	N.D.		0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.		0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.		0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.		0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.		0.1	1
14249	Chrysene	218-01-9	N.D.		0.1	1
14249	Fluorene	86-73-7	N.D.		0.1	1
14249	Naphthalene	91-20-3	N.D.		0.1	1
14249	Phenanthrene	85-01-8	N.D.		0.1	1
14249	Pyrene	129-00-0	0.2	J	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D.	D1	0.0094	1

The Quality Control data listed below is outside the project defined limits and outside the laboratory's statistically derived limits. CCV: ethylene dibromide.

Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	
06035	Lead	7439-92-1	2.9		0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	D193372AA	12/03/2019 14:11	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193372AA	12/03/2019 14:10	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19326WAE026	12/01/2019 21:54	Ashley R Transue	1
07807	BNA Water Extraction	SW-846 3510C	1	19326WAE026	11/22/2019 18:07	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193290019A	11/28/2019 03:39	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193290019A	11/27/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193291404708A	12/03/2019 13:46	Janeyah Rivers-Hamilton	1

REVISED

Sample Description: **W-12_20191119 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/21/2019 16:53
Collection Date/Time: 11/19/2019 11:40

Evergreen c/o Stantec
ELLE Sample #: GW 1208200
ELLE Group #: 2075960
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193291404708	11/29/2019 03:06	James L Mertz	1

REVISED

Sample Description: **W-32D_20191119 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/21/2019 16:53
Collection Date/Time: 11/19/2019 14:15

Evergreen c/o Stantec
ELLE Sample #: GW 1208201
ELLE Group #: 2075960
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	
10945	Benzene	71-43-2	N.D.		0.2	1
10945	1,2-Dichloroethane	107-06-2	N.D.		2	1
10945	Ethylbenzene	100-41-4	N.D.		0.2	1
10945	Isopropylbenzene	98-82-8	N.D.		0.3	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.2	1
10945	Toluene	108-88-3	N.D.		0.2	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.		0.3	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.		0.3	1
10945	Xylene (Total)	1330-20-7	N.D.		0.8	1
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**		**ug/l**	
14249	Anthracene	120-12-7	N.D.		0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.		0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.		0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.		0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.		0.1	1
14249	Chrysene	218-01-9	N.D.		0.1	1
14249	Fluorene	86-73-7	0.4	J	0.1	1
14249	Naphthalene	91-20-3	N.D.		0.1	1
14249	Phenanthrene	85-01-8	N.D.		0.1	1
14249	Pyrene	129-00-0	0.3	J	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**		**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D.	D1	0.0095	1

The Quality Control data listed below is outside the project defined limits and outside the laboratory's statistically derived limits. CCV: ethylene dibromide.

Metals Dissolved	**SW-846 6020**		**ug/l**		**ug/l**	
06035	Lead	7439-92-1	4.0		0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TMBs	SW-846 8260B	1	D193372AA	12/03/2019 14:35	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193372AA	12/03/2019 14:34	Alexander D Sechrist	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19326WAE026	12/01/2019 22:23	Ashley R Transue	1
07807	BNA Water Extraction	SW-846 3510C	1	19326WAE026	11/22/2019 18:07	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193290019A	11/28/2019 04:13	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193290019A	11/27/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193291404708A	12/03/2019 13:47	Janeyah Rivers-Hamilton	1

REVISED

Sample Description: **W-32D_20191119 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/21/2019 16:53
Collection Date/Time: 11/19/2019 14:15

Evergreen c/o Stantec
ELLE Sample #: GW 1208201
ELLE Group #: 2075960
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193291404708	11/29/2019 03:06	James L Mertz	1

REVISED

Sample Description: S-376_20191120 Grab Groundwater
2019 Q4 GWS PHL

Project Name: 2019 Q4 GWS PHL

Submittal Date/Time: 11/21/2019 16:53
Collection Date/Time: 11/20/2019 10:00

Evergreen c/o Stantec
ELLE Sample #: GW 1208202
ELLE Group #: 2075960
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	160	0.5	2.5
10945	t-Butyl alcohol	75-65-0	N.D.	25	2.5
10945	1,2-Dichloroethane	107-06-2	N.D.	5	2.5
10945	Ethylbenzene	100-41-4	1,400	5	25
10945	Isopropylbenzene	98-82-8	24	0.8	2.5
10945	Methyl Tertiary Butyl Ether	1634-04-4	1 J	0.5	2.5
10945	Toluene	108-88-3	3,800	5	25
10945	1,2,4-Trimethylbenzene	95-63-6	1,600	8	25
10945	1,3,5-Trimethylbenzene	108-67-8	360	0.8	2.5
10945	Xylene (Total)	1330-20-7	8,600	20	25
GC/MS Semivolatiles	**SW-846 8270C**		**ug/l**	**ug/l**	
14249	Anthracene	120-12-7	N.D.	0.1	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	1
14249	Chrysene	218-01-9	N.D.	0.1	1
14249	Fluorene	86-73-7	N.D.	0.1	1
14249	Naphthalene	91-20-3	270	0.6	5
14249	Phenanthrene	85-01-8	N.D.	0.1	1
14249	Pyrene	129-00-0	N.D.	0.1	1
Volatiles by Extraction	**SW-846 8011**		**ug/l**	**ug/l**	
10398	Ethylene dibromide	106-93-4	N.D. D1	0.0095	1

The Quality Control data listed below is outside the project defined limits and outside the laboratory's statistically derived limits. CCV: ethylene dibromide.

Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.43 J	0.071	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/20.
This sample was field filtered for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/Cumene/EDC/TBA/TMBs	SW-846 8260B	1	Z193381AA	12/04/2019 15:31	Anita M Dale	2.5
10945	BTEX/MTBE/Cumene/EDC/TBA/TMBs	SW-846 8260B	1	Z193381AA	12/04/2019 15:55	Anita M Dale	25
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z193381AA	12/04/2019 15:30	Anita M Dale	2.5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Z193381AA	12/04/2019 15:54	Anita M Dale	25
14249	PAHs 8270C MINI	SW-846 8270C	1	19326WAE026	12/01/2019 22:52	Ashley R Transue	1
14249	PAHs 8270C MINI	SW-846 8270C	1	19326WAE026	12/02/2019 11:42	Kira N Beck	5

REVISED

Sample Description: **S-376_20191120 Grab Groundwater 2019 Q4 GWS PHL**

Project Name: **2019 Q4 GWS PHL**

Submittal Date/Time: 11/21/2019 16:53
Collection Date/Time: 11/20/2019 10:00

Evergreen c/o Stantec
ELLE Sample #: GW 1208202
ELLE Group #: 2075960
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07807	BNA Water Extraction	SW-846 3510C	1	19326WAE026	11/22/2019 18:07	Laura Duquette	1
10398	EDB in Wastewater	SW-846 8011	1	193290019A	11/28/2019 04:47	Jason Brumbaugh	1
07786	EDB Extraction (8011)	SW-846 8011	1	193290019A	11/27/2019 02:00	Mathias Okpo	1
06035	Lead	SW-846 6020	1	193291404708A	12/04/2019 09:51	Janeyah Rivers-Hamilton	1
14047	ICPMS - Water, 3020A - U345	SW-846 3020A	1	193291404708	11/29/2019 03:06	James L Mertz	1

REVISED

Quality Control Summary

Client Name: Evergreen c/o Stantec
Group Number: 2075960
Reported: 01/02/2020 12:05

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	ug/l	ug/l
Batch number: D193311AA	Sample number(s): 1208188	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.8
Batch number: D193312AA	Sample number(s): 1208189-1208190,1208198	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.8
Batch number: D193322AA	Sample number(s): 1208189	
t-Butyl alcohol	N.D.	10
Batch number: D193372AA	Sample number(s): 1208191-1208193,1208199-1208201	
Benzene	N.D.	0.2
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.8
Batch number: F193311AA	Sample number(s): 1208196-1208197	
Benzene	N.D.	0.2
1,2-Dichloroethane	N.D.	2

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
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P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

REVISED

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 01/02/2020 12:05

Group Number: 2075960

Method Blank (continued)

Analysis Name	Result	MDL
	ug/l	ug/l
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.8
Batch number: F193371AA	Sample number(s): 1208195	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.8
Batch number: Z193381AA	Sample number(s): 1208194,1208202	
Benzene	N.D.	0.2
t-Butyl alcohol	N.D.	10
1,2-Dichloroethane	N.D.	2
Ethylbenzene	N.D.	0.2
Isopropylbenzene	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.2
Toluene	N.D.	0.2
1,2,4-Trimethylbenzene	N.D.	0.3
1,3,5-Trimethylbenzene	N.D.	0.3
Xylene (Total)	N.D.	0.8
Batch number: 19326WAE026	Sample number(s): 1208188-1208195,1208197-1208202	
Anthracene	N.D.	0.1
Benzo(a)anthracene	N.D.	0.1
Benzo(a)pyrene	N.D.	0.1
Benzo(b)fluoranthene	N.D.	0.1
Benzo(g,h,i)perylene	N.D.	0.1
Chrysene	N.D.	0.1
Fluorene	N.D.	0.1
Naphthalene	N.D.	0.1
Phenanthrene	N.D.	0.1
Pyrene	N.D.	0.1
Batch number: 193290018A	Sample number(s): 1208188-1208196	
Ethylene dibromide	N.D.	0.010

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REVISED

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 01/02/2020 12:05

Group Number: 2075960

Method Blank (continued)

Analysis Name	Result	MDL
	ug/l	ug/l
Batch number: 193290019A	Sample number(s): 1208197-1208202	
Ethylene dibromide	N.D.	0.010
Batch number: 193291404708A	Sample number(s): 1208188-1208191,1208193-1208195,1208197-1208202	
Lead	N.D.	0.071
Batch number: 193361404705A	Sample number(s): 1208192	
Lead	N.D.	0.071

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: D193311AA	Sample number(s): 1208188								
Benzene	20	19.86			99		80-120		
t-Butyl alcohol	200	197.06			99		60-130		
1,2-Dichloroethane	20	19.59			98		73-124		
Ethylbenzene	20	19.37			97		80-120		
Isopropylbenzene	20	19.03			95		80-120		
Methyl Tertiary Butyl Ether	20	20.63			103		69-122		
Toluene	20	19.41			97		80-120		
1,2,4-Trimethylbenzene	20	19.29			96		75-120		
1,3,5-Trimethylbenzene	20	19.14			96		75-120		
Xylene (Total)	60	58.49			97		80-120		
Batch number: D193312AA	Sample number(s): 1208189-1208190,1208198								
Benzene	20	19.32			97		80-120		
t-Butyl alcohol	200	194.02			97		60-130		
1,2-Dichloroethane	20	19.15			96		73-124		
Ethylbenzene	20	18.94			95		80-120		
Isopropylbenzene	20	18.53			93		80-120		
Methyl Tertiary Butyl Ether	20	19.81			99		69-122		
Toluene	20	19.09			95		80-120		
1,2,4-Trimethylbenzene	20	19			95		75-120		
1,3,5-Trimethylbenzene	20	18.1			91		75-120		
Xylene (Total)	60	56.69			94		80-120		
Batch number: D193322AA	Sample number(s): 1208189								
t-Butyl alcohol	200	200.1			100		60-130		
Batch number: D193372AA	Sample number(s): 1208191-1208193,1208199-1208201								
Benzene	20	18.69			93		80-120		
1,2-Dichloroethane	20	18.46			92		73-124		

*- Outside of specification
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REVISED

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 01/02/2020 12:05

Group Number: 2075960

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Ethylbenzene	20	16.3			82		80-120		
Isopropylbenzene	20	17.5			87		80-120		
Methyl Tertiary Butyl Ether	20	19.44			97		69-122		
Toluene	20	18.22			91		80-120		
1,2,4-Trimethylbenzene	20	17.93			90		75-120		
1,3,5-Trimethylbenzene	20	17.12			86		75-120		
Xylene (Total)	60	53.84			90		80-120		
Batch number: F193311AA	Sample number(s): 1208196-1208197								
Benzene	20	20	20	19.86	100	99	80-120	1	30
1,2-Dichloroethane	20	17.66	20	18.08	88	90	73-124	2	30
Ethylbenzene	20	18.74	20	18.65	94	93	80-120	0	30
Isopropylbenzene	20	17.76	20	17.83	89	89	80-120	0	30
Methyl Tertiary Butyl Ether	20	18.68	20	18.37	93	92	69-122	2	30
Toluene	20	18.75	20	18.69	94	93	80-120	0	30
1,2,4-Trimethylbenzene	20	17.88	20	18.41	89	92	75-120	3	30
1,3,5-Trimethylbenzene	20	17.96	20	18.52	90	93	75-120	3	30
Xylene (Total)	60	54.95	60	54.78	92	91	80-120	0	30
Batch number: F193371AA	Sample number(s): 1208195								
Benzene	20	19.7	20	19.05	98	95	80-120	3	30
t-Butyl alcohol	200	178.69	200	177.86	89	89	60-130	0	30
1,2-Dichloroethane	20	16.49	20	15.93	82	80	73-124	3	30
Ethylbenzene	20	18.85	20	19.3	94	97	80-120	2	30
Isopropylbenzene	20	17.85	20	16.97	89	85	80-120	5	30
Methyl Tertiary Butyl Ether	20	18.04	20	18.07	90	90	69-122	0	30
Toluene	20	19.61	20	18.63	98	93	80-120	5	30
1,2,4-Trimethylbenzene	20	18.89	20	18.45	94	92	75-120	2	30
1,3,5-Trimethylbenzene	20	18.57	20	17.91	93	90	75-120	4	30
Xylene (Total)	60	55.66	60	55.88	93	93	80-120	0	30
Batch number: Z193381AA	Sample number(s): 1208194,1208202								
Benzene	20	19.82	20	19.59	99	98	80-120	1	30
t-Butyl alcohol	200	178.41	200	180	89	90	60-130	1	30
1,2-Dichloroethane	20	18.12	20	18.15	91	91	73-124	0	30
Ethylbenzene	20	19.34	20	19.03	97	95	80-120	2	30
Isopropylbenzene	20	19.69	20	19.2	98	96	80-120	3	30
Methyl Tertiary Butyl Ether	20	19.97	20	19.87	100	99	69-122	0	30
Toluene	20	19.44	20	19.02	97	95	80-120	2	30
1,2,4-Trimethylbenzene	20	18.72	20	18.67	94	93	75-120	0	30
1,3,5-Trimethylbenzene	20	18.94	20	18.73	95	94	75-120	1	30
Xylene (Total)	60	59.88	60	58.6	100	98	80-120	2	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 19326WAE026	Sample number(s): 1208188-1208195,1208197-1208202								

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.
P####### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

REVISED

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 01/02/2020 12:05

Group Number: 2075960

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Anthracene	50	42.99	50	45.52	86	91	62-116	6	30
Benzo(a)anthracene	50	46.77	50	50.37	94	101	70-118	7	30
Benzo(a)pyrene	50	42.81	50	44.53	86	89	71-117	4	30
Benzo(b)fluoranthene	50	44.93	50	47.18	90	94	71-115	5	30
Benzo(g,h,i)perylene	50	37.8	50	40.14	76	80	60-119	6	30
Chrysene	50	44.96	50	47.54	90	95	69-116	6	30
Fluorene	50	40.04	50	41.41	80	83	56-115	3	30
Naphthalene	50	35.09	50	36.17	70	72	45-105	3	30
Phenanthrene	50	41.87	50	43.74	84	87	65-113	4	30
Pyrene	50	42.74	50	45.99	85	92	65-115	7	30
	ug/l	**ug/l**	**ug/l**	**ug/l**					
Batch number: 193290018A	Sample number(s): 1208188-1208196								
Ethylene dibromide	0.210	0.152	0.210	0.136	72	65	60-140	11	20
Batch number: 193290019A	Sample number(s): 1208197-1208202								
Ethylene dibromide	0.210	0.144	0.210	0.170	68	81	60-140	17	20
	ug/l	**ug/l**	**ug/l**	**ug/l**					
Batch number: 193291404708A	Sample number(s): 1208188-1208191,1208193-1208195,1208197-1208202								
Lead	5.00	5.48			110		90-110		
Batch number: 193361404705A	Sample number(s): 1208192								
Lead	5.00	4.89			98		90-110		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: D193311AA	Sample number(s): 1208188 UNSPK: P207732									
Benzene	N.D.	20	21.59	20	22.13	108	111	80-120	2	30
t-Butyl alcohol	N.D.	200	198.08	200	201.71	99	101	60-130	2	30
1,2-Dichloroethane	N.D.	20	20.91	20	21.26	105	106	73-124	2	30
Ethylbenzene	N.D.	20	21.19	20	21.49	106	107	80-120	1	30
Isopropylbenzene	N.D.	20	21.09	20	21.19	105	106	80-120	0	30
Methyl Tertiary Butyl Ether	N.D.	20	21.85	20	21.94	109	110	69-122	0	30
Toluene	N.D.	20	21.02	20	21.41	105	107	80-120	2	30
1,2,4-Trimethylbenzene	N.D.	20	20.39	20	20.84	102	104	75-120	2	30
1,3,5-Trimethylbenzene	N.D.	20	20.52	20	20.96	103	105	75-120	2	30

*- Outside of specification
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REVISED

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 01/02/2020 12:05

Group Number: 2075960

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Xylene (Total)	N.D.	60	63.71	60	65.06	106	108	80-120	2	30
Batch number: D193312AA	Sample number(s): 1208189-1208190,1208198 UNSPK: P207995									
Benzene	3.25	20	22.9	20	24.96	98	109	80-120	9	30
t-Butyl alcohol	N.D.	200	176.98	200	195.49	88	98	60-130	10	30
1,2-Dichloroethane	N.D.	20	18.89	20	21.14	94	106	73-124	11	30
Ethylbenzene	N.D.	20	19.67	20	21.42	98	107	80-120	9	30
Isopropylbenzene	2.31	20	21.24	20	23.16	95	104	80-120	9	30
Methyl Tertiary Butyl Ether	N.D.	20	19.28	20	21.47	96	107	69-122	11	30
Toluene	0.544	20	19.74	20	21.48	96	105	80-120	8	30
1,2,4-Trimethylbenzene	0.328	20	19.65	20	21.76	97	107	75-120	10	30
1,3,5-Trimethylbenzene	0.593	20	19.33	20	21.4	94	104	75-120	10	30
Xylene (Total)	1.88	60	59.92	60	65.83	97	107	80-120	9	30
Batch number: D193322AA	Sample number(s): 1208189 UNSPK: P205952									
t-Butyl alcohol	N.D.	200	201.26	200	191.75	101	96	60-130	5	30
Batch number: D193372AA	Sample number(s): 1208191-1208193,1208199-1208201 UNSPK: 1208191									
Benzene	N.D.	20	19.84	20	19.74	99	99	80-120	0	30
1,2-Dichloroethane	N.D.	20	18.89	20	18.7	94	94	73-124	1	30
Ethylbenzene	N.D.	20	17.46	20	16.9	87	84	80-120	3	30
Isopropylbenzene	N.D.	20	19.33	20	19.06	97	95	80-120	1	30
Methyl Tertiary Butyl Ether	0.677	20	19.87	20	19.88	96	96	69-122	0	30
Toluene	N.D.	20	19.37	20	18.69	97	93	80-120	4	30
1,2,4-Trimethylbenzene	N.D.	20	19.32	20	19.46	97	97	75-120	1	30
1,3,5-Trimethylbenzene	N.D.	20	18.74	20	18.78	94	94	75-120	0	30
Xylene (Total)	N.D.	60	57.74	60	56.35	96	94	80-120	2	30
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 193290018A	Sample number(s): 1208188-1208196 UNSPK: P207930									
Ethylene dibromide	N.D.	0.196	0.154			79		60-140		
Batch number: 193290019A	Sample number(s): 1208197-1208202 UNSPK: 1208200									
Ethylene dibromide	N.D.	0.197	0.184			94		60-140		
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 193291404708A	Sample number(s): 1208188-1208191,1208193-1208195,1208197-1208202 UNSPK: 1208190									
Lead	0.283	5.00	5.66	5.00	5.87	108	112	75-125	4	20
Batch number: 193361404705A	Sample number(s): 1208192 UNSPK: P208282									
Lead	N.D.	5.00	5.27	5.00	5.15	105	103	75-125	2	20

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Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 01/02/2020 12:05

Group Number: 2075960

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc	DUP Conc	DUP RPD	DUP RPD Max
	ug/l	ug/l		
Batch number: 193290018A	Sample number(s): 1208188-1208196 BKG: P207931			
Ethylene dibromide	N.D.	N.D.	0 (1)	30
Batch number: 193290019A	Sample number(s): 1208197-1208202 BKG: 1208201			
Ethylene dibromide	N.D.	N.D.	0 (1)	30
	ug/l	ug/l		
Batch number: 193291404708A	Sample number(s): 1208188-1208191,1208193-1208195,1208197-1208202 BKG: 1208190			
Lead	0.283	0.275	3 (1)	20
Batch number: 193361404705A	Sample number(s): 1208192 BKG: P208282			
Lead	N.D.	N.D.	0 (1)	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: D193311AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1208188	100	92	99	106
Blank	102	92	99	95
LCS	100	95	100	99
MS	101	93	100	99
MSD	100	96	100	99
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: D193312AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1208189	97	94	101	99
1208190	101	99	100	97
1208198	99	95	100	114
Blank	103	99	100	96
LCS	101	101	100	101
MS	100	99	100	100
MSD	102	103	100	99

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Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 01/02/2020 12:05

Group Number: 2075960

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: D193312AA

Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TMBs
Batch number: D193372AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1208191	101	100	99	97
1208192	101	103	98	99
1208193	101	100	99	97
1208199	100	98	100	98
1208200	101	101	99	97
1208201	101	101	99	100
Blank	101	99	100	98
LCS	102	101	101	99
MS	100	104	100	99
MSD	100	100	99	98
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TMBs
Batch number: F193311AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1208196	95	93	99	98
1208197	94	95	99	100
Blank	96	96	99	98
LCS	94	99	100	100
LCSD	95	98	99	100
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: F193371AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1208195	92	95	106	100
Blank	94	95	103	98
LCS	92	97	105	101
LCSD	94	96	106	99
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: Z193381AA

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

REVISED

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 01/02/2020 12:05

Group Number: 2075960

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX/MTBE/Cumene/EDC/TBA/TMBs
Batch number: Z193381AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1208194	101	95	96	96
1208202	99	94	96	96
Blank	101	95	97	95
LCS	101	98	98	98
LCSD	102	98	97	97
Limits:	80-120	80-120	80-120	80-120

Analysis Name: PAHs 8270C MINI
Batch number: 19326WAE026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
1208188	59	58	53
1208189	76	67	62
1208190	72	69	74
1208191	61	53	58
1208192	74	61	61
1208193	65	57	63
1208194	72	65	58
1208195	46	43*	46
1208197	67	65	65
1208198	64	62	62
1208199	73	72	67
1208200	49	50	55
1208201	66	66	53
1208202	65	61	79
Blank	78	63	74
LCS	74	62	82
LCSD	78	73	79
Limits:	33-113	44-102	39-125

Analysis Name: EDB in Wastewater
Batch number: 193290018A

	1,1,2,2-Tetrachloroethane-D1	1,1,2,2-Tetrachloroethane-D2
1208188	230*	120
1208189	134	160*
1208190	154*	162*
1208191	138*	146*
1208192	119	125
1208193	147*	152*
1208194	126	125
1208195	178*	179*

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

REVISED

Quality Control Summary

Client Name: Evergreen c/o Stantec
Reported: 01/02/2020 12:05

Group Number: 2075960

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: EDB in Wastewater
Batch number: 193290018A

	1,1,2,2-Tetrachloroethane-D1	1,1,2,2-Tetrachloroethane-D2
1208196	134	143*
Blank	110	110
DUP	112	125
LCS	107	116
LCSD	98	112
MS	111	133
Limits:	46-136	46-136

Analysis Name: EDB in Wastewater
Batch number: 193290019A

	1,1,2,2-Tetrachloroethane-D1	1,1,2,2-Tetrachloroethane-D2
1208197	131	137*
1208198	135	149*
1208199	130	137*
1208200	138*	148*
1208201	124	142*
1208202	170*	171*
Blank	111	117
DUP	124	141*
LCS	108	115
LCSD	120	125
MS	142*	150*
Limits:	46-136	46-136

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Environmental Analysis Request/Chain of Custody

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Acct. # 16657 Group # 2075960 Sample # 1208188-202

Client:	Evergreen c/o Stantec		
Project Name/#:	PHL 2019Q4 GWS	Site ID #:	PHL Refinery
Project Manager:	Andrew Bradley	P.O. #:	213402429
Sampler:		PWSID #:	
Phone #:	610.840.2541	Quote #:	
State where sample(s) were collected:	PA		

For Lab Use Only
SF #:
SCR #:

Preservation Codes
H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Sediment	Water (Potable, Ground, NPDES, Surface)	Other: Trip Blank	Total # of Containers	Evergreen Short List VOC (8260)	EDB 8011	Dissolved Lead (field filtered)	PAH 8270	TBA 8260	Remarks
S-357-SL-20191115	11/15	1355	X				X		8	X	X	X	X	X	*For list of analytes
S-277-SL-20191118	11/18	1120	X				X		8	X	X	X	X	X	refer to attached
S-22-20191118	11/18	1500	X				X		8	X	X	X	X	X	Evergreen Short List
W-1-SL-20191119	11/19	1055	X				X		8	X	X	X	X		
W-32-SL-20191119	11/19	1055	X				X		8	X	X	X	X		
DUP-7-20191119	11/19	1400	X				X		8	X	X	X	X		
W-33-20191120	11/20	1045	X				X		8	X	X	X	X		
OW-19-SL-20191120	11/20	1310	X				X		8	X	X	X	X	X	
Trip Blank	06/5/19	X						X	2	X	X				

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed:

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: abradley@stantec.com

Phone: 610.840.2541

Data Package Options (please check if required)

Type I (Validation/non-CLP) ☐ MA MCP ☐
Type III (Reduced non-CLP) ☐ CT RCP ☐
Type IV (CLP SOW) ☐ TX TRRP-13 ☐
Type VI (Raw Data Only) ☐

EDD Required? Yes ☑ No ☐ If yes, format: EQUIS

Relinquished by:	Date	Time	Received by:	Date	Time
	11/4/19	12:47		11/4/19	12:47
	11/21/19	16:13			
				11-21-19	1653

Relinquished by Commercial Carrier:
UPS ____ FedEx ____ Other ____

Temperature upon receipt .5-.6 °C

Environmental Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories Environmental use only

Acct. # 16657 Group # 2075960 Sample # 1208188-202

COC #594867

Client Information

Client: STANTEC	Acct. #: Evergreen/cp 6657 STANTEC
Project Name/#: PHL 2019 Q4 GWS	PWSID #:
Project Manager: Jennifer Menges	P.O. #: 213402429
Sampler: Charles Murvee	Quote #:
State where samples were collected:	For Compliance: Yes ☐ No ☐

Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: ____

Analysis Requested — Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Sediment	Tissue	Water	Other	Total # of Containers	Evergreen VOC 8260 (H)	EDB 8011 (H)	Dissolved lead (field preferred) (N)	PAH 8270	TBA 8260 (H)						Remarks
WP-C-20191115	11/15	1335	X					X		8	X	X	X	X							
S-337-SL-20191118	11/18	1340	X					X		8	X	X	X	X	X						
W-13-20191119	11/19	1040	X					X		8	X	X	X	X							
W-12-20191119	11/19	1140	X					X		8	X	X	X	X							
W-32D-20191119	11/19	1415	X					X		8	X	X	X	X							Filled 500mL for Metals instead of 250mL (LM)
S-376-20191120	11/20	1000	X					X		8	X	X	X	X	X						

For Lab Use Only
FSC: ____
SCR#: ____

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks
* Lead Field filtered
* For list of analysis refer to attached Evergreen short list

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: ____

E-mail address: ____

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
[signature]	11/21/19	12:47	[signature]	11/21/19	12:47
[signature]	11/21/19				
			[signature]	11-21-19	1653

EDD Required? Yes No
If yes, format: ____

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:
UPS ____ FedEx ____ Other ____

Temperature upon receipt .5-.6 °C

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Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 267408

Group Number(s): 2075960

Client: Evergreen

Delivery and Receipt Information

Delivery Method:	ELLE Courier	Arrival Date:	11/22/2019
Number of Packages:	3	Number of Projects:	3
State/Province of Origin:	PA		

Arrival Condition Summary

Shipping Container Sealed:	No	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	2
Paperwork Enclosed:	Yes	Trip Blank Type:	HCl
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Amy Morrow

Samples Chilled Details

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Matrix	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	Water	DT42-01	0.5	DT	Wet	Y	Loose	N
2	Water	DT42-01	0.5	DT	Wet	Y	Loose	N
3	Water	DT42-01	0.6	DT	Wet	Y	Loose	N

Sample Date/Time Discrepancy Details

Sample ID on COC	Date/Time on Label	Comments
WP-C-20191115	11/15/2019 13:15	
W-32-SL-20191119	11/19/2019 14:00	
Dup-7-20191119	11/19/2019 --	

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report
B	Detection in the Method Blank
Q0	LCS/LCSD Low
Q1	LCS/LCSD High
Q2	MS/MSD Low
Q3	MS/MSD High
Q7	LCS/LCSD RPD
Q8	DUP RPD
Q9	MS/MSD RPD

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

March 29, 2017

David Steele
GHD
410 Eagleview Blvd.
Exton, PA 19341

RE: Project: 11109626-04 PES Indoor Air
Pace Project No.: 10381907

Dear David Steele:
Enclosed are the analytical results for sample(s) received by the laboratory on March 14, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Nathan Boberg
nathan.boberg@pacelabs.com
(612)607-6407
Project Manager

Enclosures

cc: Paul McMahon, GHD

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CERTIFICATIONS

Project: 11109626-04 PES Indoor Air
Pace Project No.: 10381907

Minnesota Certification IDs

1700 Elm Street SE, Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: UST-078
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas Certification #: 88-0680
California Certification #: MN00064
CNMI Saipan Certification #:MP0003
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida Certification #: E87605
Georgia Certification #: 959
Guam EPA Certification #: MN00064
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: 03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: MN00064
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon NwTPH Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DW Certification #: 9952 C
West Virginia WW Certification #: 382
Wisconsin Certification #: 999407970
Wyoming via EPA Region 8 Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 11109626-04 PES Indoor Air
Pace Project No.: 10381907

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10381907001	**AOI6-AI-17-09**	Air	03/08/17 16:03	03/14/17 10:30
10381907002	**AOI6-AI-17-10**	Air	03/08/17 15:37	03/14/17 10:30
10381907003	**AOI6-AI-17-11**	Air	03/08/17 16:27	03/14/17 10:30
10381907004	**AOI6-AI-17-12**	Air	03/08/17 16:38	03/14/17 10:30
10381907005	**AOI6-AI-17-13**	Air	03/08/17 16:34	03/14/17 10:30
10381907006	**AOI6-AI-17-14**	Air	03/08/17 17:08	03/14/17 10:30
10381907007	**AOI6-AI-17-06**	Air	03/08/17 17:55	03/14/17 10:30
10381907008	**AOI6-AI-17-07R**	Air	03/09/17 16:57	03/14/17 10:30
10381907009	**AOI3-AI-17-01**	Air	03/09/17 14:56	03/14/17 10:30
10381907010	**AOI3-AI-17-02**	Air	03/09/17 15:05	03/14/17 10:30
10381907011	**AOI3-AI-17-03**	Air	03/09/17 14:58	03/14/17 10:30
10381907012	**AOI3-AI-17-04**	Air	03/09/17 15:07	03/14/17 10:30
10381907013	**AOI3-AI-17-05**	Air	03/09/17 14:46	03/14/17 10:30
10381907014	**AOI3-AI-17-06**	Air	03/09/17 15:03	03/14/17 10:30
10381907015	**AOI3-AI-17-07**	Air	03/09/17 14:48	03/14/17 10:30
10381907016	**AOI3-AI-17-08**	Air	03/09/17 16:05	03/14/17 10:30
10381907017	**AOI4-AI-17-01**	Air	03/09/17 16:40	03/14/17 10:30
10381907018	**AOI4-AA-17-01**	Air	03/09/17 16:42	03/14/17 10:30
10381907019	**AOI8-AI-17-09**	Air	03/09/17 16:10	03/14/17 10:30
10381907020	**AOI8-AI-17-10**	Air	03/09/17 16:17	03/14/17 10:30
10381907021	**AOI8-AI-17-11**	Air	03/09/17 16:42	03/14/17 10:30

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SAMPLE ANALYTE COUNT

Project: 11109626-04 PES Indoor Air
Pace Project No.: 10381907

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10381907001	**AOI6-AI-17-09**	TO-15	MLS	13
10381907003	**AOI6-AI-17-11**	TO-15	EMC	13
10381907004	**AOI6-AI-17-12**	TO-15	EMC	13
10381907005	**AOI6-AI-17-13**	TO-15	EMC	13
10381907006	**AOI6-AI-17-14**	TO-15	EMC	13
10381907007	**AOI6-AI-17-06**	TO-15	EMC	13
10381907008	**AOI6-AI-17-07R**	TO-15	EMC	13
10381907009	**AOI3-AI-17-01**	TO-15	EMC	13
10381907010	**AOI3-AI-17-02**	TO-15	EMC	13
10381907011	**AOI3-AI-17-03**	TO-15	EMC	13
10381907012	**AOI3-AI-17-04**	TO-15	EMC	13
10381907013	**AOI3-AI-17-05**	TO-15	EMC	13
10381907014	**AOI3-AI-17-06**	TO-15	EMC	13
10381907015	**AOI3-AI-17-07**	TO-15	EMC	13
10381907016	**AOI3-AI-17-08**	TO-15	EMC	13
10381907017	**AOI4-AI-17-01**	TO-15	EMC	13
10381907018	**AOI4-AA-17-01**	TO-15	EMC	13
10381907019	**AOI8-AI-17-09**	TO-15	EMC	13
10381907020	**AOI8-AI-17-10**	TO-15	EMC	13
10381907021	**AOI8-AI-17-11**	TO-15	EMC	13

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PROJECT NARRATIVE

Project: 11109626-04 PES Indoor Air
Pace Project No.: 10381907

Date: March 29, 2017

During validation it was noted that sample ID AO16-AI-17-10 may have been contaminated and resutls cannot be included within final results.

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PROJECT NARRATIVE

Project: 11109626-04 PES Indoor Air
Pace Project No.: 10381907

Method: **TO-15**
Description: TO15 MSV AIR
Client: GHD
Date: March 29, 2017

General Information:
20 samples were analyzed for TO-15. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

QC Batch: 464884

SS: This analyte did not meet the secondary source verification criteria for the initial calibration. The reported result should be considered an estimated value.

- LCS (Lab ID: 2541577)
  - Naphthalene

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: 465257

CH: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.

- LCS (Lab ID: 2543664)
  - 1,2-Dichloroethane

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 465212

C0: Result confirmed by second analysis.

- AOI3-AI-17-08 (Lab ID: 10381907016)
  - Toluene

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 11109626-04 PES Indoor Air
Pace Project No.: 10381907

Sample: AOI6-AI-17-09 **Lab ID: 10381907001** Collected: 03/08/17 16:03 Received: 03/14/17 10:30 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Benzene	**6.4**	ug/m3	0.87	0.16	1.34		03/22/17 17:44	71-43-2	
1,2-Dibromoethane (EDB)	**<1.0**	ug/m3	2.1	1.0	1.34		03/22/17 17:44	106-93-4	
1,2-Dichloroethane	**<0.27**	ug/m3	1.1	0.27	1.34		03/22/17 17:44	107-06-2	
Ethylbenzene	**1.5J**	ug/m3	3.0	0.57	1.34		03/22/17 17:44	100-41-4	
Isopropylbenzene (Cumene)	**<0.18**	ug/m3	3.4	0.18	1.34		03/22/17 17:44	98-82-8	
Methyl-tert-butyl ether	**<0.41**	ug/m3	4.9	0.41	1.34		03/22/17 17:44	1634-04-4	
Naphthalene	**3.5J**	ug/m3	3.6	0.41	1.34		03/22/17 17:44	91-20-3	
Toluene	**2.1**	ug/m3	1.0	0.21	1.34		03/22/17 17:44	108-88-3	
1,2,4-Trimethylbenzene	**2.1J**	ug/m3	3.3	0.17	1.34		03/22/17 17:44	95-63-6	
1,3,5-Trimethylbenzene	**<0.25**	ug/m3	3.3	0.25	1.34		03/22/17 17:44	108-67-8	
Xylene (Total)	**4.8**	ug/m3	3.6	1.5	1.34		03/22/17 17:44	1330-20-7	
m&p-Xylene	**3.2**	ug/m3	2.4	1.1	1.34		03/22/17 17:44	179601-23-1	
o-Xylene	**1.6J**	ug/m3	3.0	0.47	1.34		03/22/17 17:44	95-47-6	

Sample: AOI6-AI-17-11 **Lab ID: 10381907003** Collected: 03/08/17 16:27 Received: 03/14/17 10:30 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Benzene	**8.6**	ug/m3	0.47	0.18	1.44		03/23/17 03:28	71-43-2	
1,2-Dibromoethane (EDB)	**<1.1**	ug/m3	5.6	1.1	1.44		03/23/17 03:28	106-93-4	
1,2-Dichloroethane	**<0.30**	ug/m3	0.59	0.30	1.44		03/23/17 03:28	107-06-2	
Ethylbenzene	**<0.61**	ug/m3	3.2	0.61	1.44		03/23/17 03:28	100-41-4	
Isopropylbenzene (Cumene)	**<0.20**	ug/m3	3.6	0.20	1.44		03/23/17 03:28	98-82-8	
Methyl-tert-butyl ether	**<0.44**	ug/m3	5.3	0.44	1.44		03/23/17 03:28	1634-04-4	
Naphthalene	**1.9J**	ug/m3	3.8	0.44	1.44		03/23/17 03:28	91-20-3	
Toluene	**3.5**	ug/m3	1.1	0.22	1.44		03/23/17 03:28	108-88-3	
1,2,4-Trimethylbenzene	**2.5J**	ug/m3	3.6	0.18	1.44		03/23/17 03:28	95-63-6	
1,3,5-Trimethylbenzene	**<0.26**	ug/m3	3.6	0.26	1.44		03/23/17 03:28	108-67-8	
Xylene (Total)	**7.7**	ug/m3	3.8	1.6	1.44		03/23/17 03:28	1330-20-7	
m&p-Xylene	**5.2J**	ug/m3	6.4	1.1	1.44		03/23/17 03:28	179601-23-1	
o-Xylene	**2.5J**	ug/m3	3.2	0.51	1.44		03/23/17 03:28	95-47-6	

Sample: AOI6-AI-17-12 **Lab ID: 10381907004** Collected: 03/08/17 16:38 Received: 03/14/17 10:30 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Benzene	**14.1**	ug/m3	0.58	0.22	1.8		03/23/17 03:56	71-43-2	
1,2-Dibromoethane (EDB)	**<1.4**	ug/m3	7.0	1.4	1.8		03/23/17 03:56	106-93-4	
1,2-Dichloroethane	**<0.37**	ug/m3	0.74	0.37	1.8		03/23/17 03:56	107-06-2	
Ethylbenzene	**<0.76**	ug/m3	4.0	0.76	1.8		03/23/17 03:56	100-41-4	

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ANALYTICAL RESULTS

Project: 11109626-04 PES Indoor Air
Pace Project No.: 10381907

Sample: AOI6-AI-17-12 **Lab ID: 10381907004** Collected: 03/08/17 16:38 Received: 03/14/17 10:30 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Isopropylbenzene (Cumene)	**<0.25**	ug/m3	4.5	0.25	1.8		03/23/17 03:56	98-82-8	
Methyl-tert-butyl ether	**<0.55**	ug/m3	6.6	0.55	1.8		03/23/17 03:56	1634-04-4	
Naphthalene	**1.0J**	ug/m3	4.8	0.55	1.8		03/23/17 03:56	91-20-3	
Toluene	**4.1**	ug/m3	1.4	0.28	1.8		03/23/17 03:56	108-88-3	
1,2,4-Trimethylbenzene	**3.0J**	ug/m3	4.5	0.22	1.8		03/23/17 03:56	95-63-6	
1,3,5-Trimethylbenzene	**<0.33**	ug/m3	4.5	0.33	1.8		03/23/17 03:56	108-67-8	
Xylene (Total)	**6.3**	ug/m3	4.8	2.0	1.8		03/23/17 03:56	1330-20-7	
m&p-Xylene	**6.3J**	ug/m3	7.9	1.4	1.8		03/23/17 03:56	179601-23-1	
o-Xylene	**<0.63**	ug/m3	4.0	0.63	1.8		03/23/17 03:56	95-47-6	

Sample: AOI6-AI-17-13 **Lab ID: 10381907005** Collected: 03/08/17 16:34 Received: 03/14/17 10:30 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Benzene	**15.8**	ug/m3	0.44	0.16	1.34		03/23/17 04:26	71-43-2	
1,2-Dibromoethane (EDB)	**<1.0**	ug/m3	5.2	1.0	1.34		03/23/17 04:26	106-93-4	
1,2-Dichloroethane	**<0.27**	ug/m3	0.55	0.27	1.34		03/23/17 04:26	107-06-2	
Ethylbenzene	**<0.57**	ug/m3	3.0	0.57	1.34		03/23/17 04:26	100-41-4	
Isopropylbenzene (Cumene)	**<0.18**	ug/m3	3.4	0.18	1.34		03/23/17 04:26	98-82-8	
Methyl-tert-butyl ether	**<0.41**	ug/m3	4.9	0.41	1.34		03/23/17 04:26	1634-04-4	
Naphthalene	**5.9**	ug/m3	3.6	0.41	1.34		03/23/17 04:26	91-20-3	
Toluene	**5.3**	ug/m3	1.0	0.21	1.34		03/23/17 04:26	108-88-3	
1,2,4-Trimethylbenzene	**2.4J**	ug/m3	3.3	0.17	1.34		03/23/17 04:26	95-63-6	
1,3,5-Trimethylbenzene	**<0.25**	ug/m3	3.3	0.25	1.34		03/23/17 04:26	108-67-8	
Xylene (Total)	**7.9**	ug/m3	3.6	1.5	1.34		03/23/17 04:26	1330-20-7	
m&p-Xylene	**5.4J**	ug/m3	5.9	1.1	1.34		03/23/17 04:26	179601-23-1	
o-Xylene	**2.5J**	ug/m3	3.0	0.47	1.34		03/23/17 04:26	95-47-6	

Sample: AOI6-AI-17-14 **Lab ID: 10381907006** Collected: 03/08/17 17:08 Received: 03/14/17 10:30 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Benzene	**5.9**	ug/m3	0.44	0.16	1.34		03/23/17 04:55	71-43-2	
1,2-Dibromoethane (EDB)	**<1.0**	ug/m3	5.2	1.0	1.34		03/23/17 04:55	106-93-4	
1,2-Dichloroethane	**<0.27**	ug/m3	0.55	0.27	1.34		03/23/17 04:55	107-06-2	
Ethylbenzene	**<0.57**	ug/m3	3.0	0.57	1.34		03/23/17 04:55	100-41-4	
Isopropylbenzene (Cumene)	**<0.18**	ug/m3	3.4	0.18	1.34		03/23/17 04:55	98-82-8	
Methyl-tert-butyl ether	**<0.41**	ug/m3	4.9	0.41	1.34		03/23/17 04:55	1634-04-4	
Naphthalene	**0.74J**	ug/m3	3.6	0.41	1.34		03/23/17 04:55	91-20-3	
Toluene	**3.6**	ug/m3	1.0	0.21	1.34		03/23/17 04:55	108-88-3	

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ANALYTICAL RESULTS

Project: 11109626-04 PES Indoor Air
Pace Project No.: 10381907

Sample: AOI6-AI-17-14 **Lab ID: 10381907006** Collected: 03/08/17 17:08 Received: 03/14/17 10:30 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
1,2,4-Trimethylbenzene	**2.6J**	ug/m3	3.3	0.17	1.34		03/23/17 04:55	95-63-6	
1,3,5-Trimethylbenzene	**<0.25**	ug/m3	3.3	0.25	1.34		03/23/17 04:55	108-67-8	
Xylene (Total)	**7.8**	ug/m3	3.6	1.5	1.34		03/23/17 04:55	1330-20-7	
m&p-Xylene	**5.3J**	ug/m3	5.9	1.1	1.34		03/23/17 04:55	179601-23-1	
o-Xylene	**2.5J**	ug/m3	3.0	0.47	1.34		03/23/17 04:55	95-47-6	

Sample: AOI6-AI-17-06 **Lab ID: 10381907007** Collected: 03/08/17 17:55 Received: 03/14/17 10:30 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Benzene	**2.2**	ug/m3	0.44	0.16	1.34		03/23/17 05:25	71-43-2	
1,2-Dibromoethane (EDB)	**<1.0**	ug/m3	5.2	1.0	1.34		03/23/17 05:25	106-93-4	
1,2-Dichloroethane	**<0.27**	ug/m3	0.55	0.27	1.34		03/23/17 05:25	107-06-2	
Ethylbenzene	**2.2J**	ug/m3	3.0	0.57	1.34		03/23/17 05:25	100-41-4	
Isopropylbenzene (Cumene)	**<0.18**	ug/m3	3.4	0.18	1.34		03/23/17 05:25	98-82-8	
Methyl-tert-butyl ether	**<0.41**	ug/m3	4.9	0.41	1.34		03/23/17 05:25	1634-04-4	
Naphthalene	**0.52J**	ug/m3	3.6	0.41	1.34		03/23/17 05:25	91-20-3	
Toluene	**10.4**	ug/m3	1.0	0.21	1.34		03/23/17 05:25	108-88-3	
1,2,4-Trimethylbenzene	**2.8J**	ug/m3	3.3	0.17	1.34		03/23/17 05:25	95-63-6	
1,3,5-Trimethylbenzene	**<0.25**	ug/m3	3.3	0.25	1.34		03/23/17 05:25	108-67-8	
Xylene (Total)	**8.4**	ug/m3	3.6	1.5	1.34		03/23/17 05:25	1330-20-7	
m&p-Xylene	**5.7J**	ug/m3	5.9	1.1	1.34		03/23/17 05:25	179601-23-1	
o-Xylene	**2.7J**	ug/m3	3.0	0.47	1.34		03/23/17 05:25	95-47-6	

Sample: AOI6-AI-17-07R **Lab ID: 10381907008** Collected: 03/09/17 16:57 Received: 03/14/17 10:30 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Benzene	**8.2**	ug/m3	0.50	0.19	1.55		03/21/17 15:31	71-43-2	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.4	1.2	1.55		03/21/17 15:31	106-93-4	
1,2-Dichloroethane	ND	ug/m3	0.64	0.32	1.55		03/21/17 15:31	107-06-2	
Ethylbenzene	**1.7**	ug/m3	1.4	0.66	1.55		03/21/17 15:31	100-41-4	
Isopropylbenzene (Cumene)	ND	ug/m3	3.9	0.21	1.55		03/21/17 15:31	98-82-8	
Methyl-tert-butyl ether	ND	ug/m3	5.7	0.47	1.55		03/21/17 15:31	1634-04-4	
Naphthalene	ND	ug/m3	4.1	0.47	1.55		03/21/17 15:31	91-20-3	
Toluene	**7.3**	ug/m3	1.2	0.24	1.55		03/21/17 15:31	108-88-3	
1,2,4-Trimethylbenzene	**4.4**	ug/m3	1.5	0.19	1.55		03/21/17 15:31	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.5	0.28	1.55		03/21/17 15:31	108-67-8	
Xylene (Total)	**8.8**	ug/m3	4.1	1.8	1.55		03/21/17 15:31	1330-20-7	
m&p-Xylene	**6.4**	ug/m3	2.7	1.2	1.55		03/21/17 15:31	179601-23-1	

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ANALYTICAL RESULTS

Project: 11109626-04 PES Indoor Air
Pace Project No.: 10381907

Sample: AOI6-AI-17-07R **Lab ID: 10381907008** Collected: 03/09/17 16:57 Received: 03/14/17 10:30 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
o-Xylene	**2.4**	ug/m3	1.4	0.54	1.55		03/21/17 15:31	95-47-6	

Sample: AOI3-AI-17-01 **Lab ID: 10381907009** Collected: 03/09/17 14:56 Received: 03/14/17 10:30 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Benzene	**3.7**	ug/m3	0.45	0.17	1.39		03/23/17 14:13	71-43-2	
1,2-Dibromoethane (EDB)	**<1.1**	ug/m3	5.4	1.1	1.39		03/23/17 14:13	106-93-4	
1,2-Dichloroethane	**<0.28**	ug/m3	0.57	0.28	1.39		03/23/17 14:13	107-06-2	
Ethylbenzene	**2.3J**	ug/m3	3.1	0.59	1.39		03/23/17 14:13	100-41-4	
Isopropylbenzene (Cumene)	**<0.19**	ug/m3	3.5	0.19	1.39		03/23/17 14:13	98-82-8	
Methyl-tert-butyl ether	**0.48J**	ug/m3	5.1	0.42	1.39		03/23/17 14:13	1634-04-4	
Naphthalene	**1.9J**	ug/m3	3.7	0.42	1.39		03/23/17 14:13	91-20-3	
Toluene	**5.2**	ug/m3	1.1	0.21	1.39		03/23/17 14:13	108-88-3	
1,2,4-Trimethylbenzene	**2.6J**	ug/m3	3.5	0.17	1.39		03/23/17 14:13	95-63-6	
1,3,5-Trimethylbenzene	**<0.25**	ug/m3	3.5	0.25	1.39		03/23/17 14:13	108-67-8	
Xylene (Total)	**8.7**	ug/m3	3.7	1.6	1.39		03/23/17 14:13	1330-20-7	
m&p-Xylene	**6.0J**	ug/m3	6.1	1.1	1.39		03/23/17 14:13	179601-23-1	
o-Xylene	**2.7J**	ug/m3	3.1	0.49	1.39		03/23/17 14:13	95-47-6	

Sample: AOI3-AI-17-02 **Lab ID: 10381907010** Collected: 03/09/17 15:05 Received: 03/14/17 10:30 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Benzene	**7.5**	ug/m3	0.44	0.16	1.34		03/23/17 14:42	71-43-2	
1,2-Dibromoethane (EDB)	**<1.0**	ug/m3	5.2	1.0	1.34		03/23/17 14:42	106-93-4	
1,2-Dichloroethane	**<0.27**	ug/m3	0.55	0.27	1.34		03/23/17 14:42	107-06-2	
Ethylbenzene	**3.2**	ug/m3	3.0	0.57	1.34		03/23/17 14:42	100-41-4	
Isopropylbenzene (Cumene)	**<0.18**	ug/m3	3.4	0.18	1.34		03/23/17 14:42	98-82-8	
Methyl-tert-butyl ether	**0.57J**	ug/m3	4.9	0.41	1.34		03/23/17 14:42	1634-04-4	
Naphthalene	**1.4J**	ug/m3	3.6	0.41	1.34		03/23/17 14:42	91-20-3	
Toluene	**21.9**	ug/m3	1.0	0.21	1.34		03/23/17 14:42	108-88-3	
1,2,4-Trimethylbenzene	**3.8**	ug/m3	3.3	0.17	1.34		03/23/17 14:42	95-63-6	
1,3,5-Trimethylbenzene	**3.0J**	ug/m3	3.3	0.25	1.34		03/23/17 14:42	108-67-8	
Xylene (Total)	**14.5**	ug/m3	3.6	1.5	1.34		03/23/17 14:42	1330-20-7	
m&p-Xylene	**10.4**	ug/m3	5.9	1.1	1.34		03/23/17 14:42	179601-23-1	
o-Xylene	**4.1**	ug/m3	3.0	0.47	1.34		03/23/17 14:42	95-47-6	

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ANALYTICAL RESULTS

Project: 11109626-04 PES Indoor Air
Pace Project No.: 10381907

Sample: AOI3-AI-17-03 **Lab ID: 10381907011** Collected: 03/09/17 14:58 Received: 03/14/17 10:30 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Benzene	**7.1**	ug/m3	0.48	0.18	1.49		03/23/17 15:10	71-43-2	
1,2-Dibromoethane (EDB)	**<1.2**	ug/m3	5.8	1.2	1.49		03/23/17 15:10	106-93-4	
1,2-Dichloroethane	**<0.31**	ug/m3	0.61	0.31	1.49		03/23/17 15:10	107-06-2	
Ethylbenzene	**3.3J**	ug/m3	3.3	0.63	1.49		03/23/17 15:10	100-41-4	
Isopropylbenzene (Cumene)	**<0.21**	ug/m3	3.7	0.21	1.49		03/23/17 15:10	98-82-8	
Methyl-tert-butyl ether	**0.47J**	ug/m3	5.5	0.45	1.49		03/23/17 15:10	1634-04-4	
Naphthalene	**1.4J**	ug/m3	4.0	0.45	1.49		03/23/17 15:10	91-20-3	
Toluene	**15.2**	ug/m3	1.1	0.23	1.49		03/23/17 15:10	108-88-3	
1,2,4-Trimethylbenzene	**4.0**	ug/m3	3.7	0.19	1.49		03/23/17 15:10	95-63-6	
1,3,5-Trimethylbenzene	**3.3J**	ug/m3	3.7	0.27	1.49		03/23/17 15:10	108-67-8	
Xylene (Total)	**14.5**	ug/m3	3.9	1.7	1.49		03/23/17 15:10	1330-20-7	
m&p-Xylene	**10.3**	ug/m3	6.6	1.2	1.49		03/23/17 15:10	179601-23-1	
o-Xylene	**4.2**	ug/m3	3.3	0.52	1.49		03/23/17 15:10	95-47-6	

Sample: AOI3-AI-17-04 **Lab ID: 10381907012** Collected: 03/09/17 15:07 Received: 03/14/17 10:30 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Benzene	**6.1**	ug/m3	0.44	0.16	1.34		03/23/17 15:37	71-43-2	
1,2-Dibromoethane (EDB)	**<1.0**	ug/m3	5.2	1.0	1.34		03/23/17 15:37	106-93-4	
1,2-Dichloroethane	**<0.27**	ug/m3	0.55	0.27	1.34		03/23/17 15:37	107-06-2	
Ethylbenzene	**3.1**	ug/m3	3.0	0.57	1.34		03/23/17 15:37	100-41-4	
Isopropylbenzene (Cumene)	**<0.18**	ug/m3	3.4	0.18	1.34		03/23/17 15:37	98-82-8	
Methyl-tert-butyl ether	**0.56J**	ug/m3	4.9	0.41	1.34		03/23/17 15:37	1634-04-4	
Naphthalene	**1.3J**	ug/m3	3.6	0.41	1.34		03/23/17 15:37	91-20-3	
Toluene	**18.3**	ug/m3	1.0	0.21	1.34		03/23/17 15:37	108-88-3	
1,2,4-Trimethylbenzene	**3.5**	ug/m3	3.3	0.17	1.34		03/23/17 15:37	95-63-6	
1,3,5-Trimethylbenzene	**2.9J**	ug/m3	3.3	0.25	1.34		03/23/17 15:37	108-67-8	
Xylene (Total)	**12.9**	ug/m3	3.6	1.5	1.34		03/23/17 15:37	1330-20-7	
m&p-Xylene	**9.1**	ug/m3	5.9	1.1	1.34		03/23/17 15:37	179601-23-1	
o-Xylene	**3.8**	ug/m3	3.0	0.47	1.34		03/23/17 15:37	95-47-6	

Sample: AOI3-AI-17-05 **Lab ID: 10381907013** Collected: 03/09/17 14:46 Received: 03/14/17 10:30 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Benzene	**6.3**	ug/m3	0.45	0.17	1.39		03/23/17 16:05	71-43-2	
1,2-Dibromoethane (EDB)	**<1.1**	ug/m3	5.4	1.1	1.39		03/23/17 16:05	106-93-4	
1,2-Dichloroethane	**<0.28**	ug/m3	0.57	0.28	1.39		03/23/17 16:05	107-06-2	
Ethylbenzene	**3.0J**	ug/m3	3.1	0.59	1.39		03/23/17 16:05	100-41-4	

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ANALYTICAL RESULTS

Project: 11109626-04 PES Indoor Air
Pace Project No.: 10381907

Sample: AOI3-AI-17-05 **Lab ID: 10381907013** Collected: 03/09/17 14:46 Received: 03/14/17 10:30 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Isopropylbenzene (Cumene)	**<0.19**	ug/m3	3.5	0.19	1.39		03/23/17 16:05	98-82-8	
Methyl-tert-butyl ether	**0.65J**	ug/m3	5.1	0.42	1.39		03/23/17 16:05	1634-04-4	
Naphthalene	**1.4J**	ug/m3	3.7	0.42	1.39		03/23/17 16:05	91-20-3	
Toluene	**18.9**	ug/m3	1.1	0.21	1.39		03/23/17 16:05	108-88-3	
1,2,4-Trimethylbenzene	**3.7**	ug/m3	3.5	0.17	1.39		03/23/17 16:05	95-63-6	
1,3,5-Trimethylbenzene	**3.0J**	ug/m3	3.5	0.25	1.39		03/23/17 16:05	108-67-8	
Xylene (Total)	**13.1**	ug/m3	3.7	1.6	1.39		03/23/17 16:05	1330-20-7	
m&p-Xylene	**9.2**	ug/m3	6.1	1.1	1.39		03/23/17 16:05	179601-23-1	
o-Xylene	**3.8**	ug/m3	3.1	0.49	1.39		03/23/17 16:05	95-47-6	

Sample: AOI3-AI-17-06 **Lab ID: 10381907014** Collected: 03/09/17 15:03 Received: 03/14/17 10:30 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Benzene	**5.7**	ug/m3	0.44	0.16	1.34		03/23/17 16:33	71-43-2	
1,2-Dibromoethane (EDB)	**<1.0**	ug/m3	5.2	1.0	1.34		03/23/17 16:33	106-93-4	
1,2-Dichloroethane	**<0.27**	ug/m3	0.55	0.27	1.34		03/23/17 16:33	107-06-2	
Ethylbenzene	**2.8J**	ug/m3	3.0	0.57	1.34		03/23/17 16:33	100-41-4	
Isopropylbenzene (Cumene)	**<0.18**	ug/m3	3.4	0.18	1.34		03/23/17 16:33	98-82-8	
Methyl-tert-butyl ether	**0.68J**	ug/m3	4.9	0.41	1.34		03/23/17 16:33	1634-04-4	
Naphthalene	**0.92J**	ug/m3	3.6	0.41	1.34		03/23/17 16:33	91-20-3	
Toluene	**17.9**	ug/m3	1.0	0.21	1.34		03/23/17 16:33	108-88-3	
1,2,4-Trimethylbenzene	**2.8J**	ug/m3	3.3	0.17	1.34		03/23/17 16:33	95-63-6	
1,3,5-Trimethylbenzene	**2.7J**	ug/m3	3.3	0.25	1.34		03/23/17 16:33	108-67-8	
Xylene (Total)	**11.8**	ug/m3	3.6	1.5	1.34		03/23/17 16:33	1330-20-7	
m&p-Xylene	**8.4**	ug/m3	5.9	1.1	1.34		03/23/17 16:33	179601-23-1	
o-Xylene	**3.4**	ug/m3	3.0	0.47	1.34		03/23/17 16:33	95-47-6	

Sample: AOI3-AI-17-07 **Lab ID: 10381907015** Collected: 03/09/17 14:48 Received: 03/14/17 10:30 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Benzene	**2.2**	ug/m3	0.50	0.19	1.55		03/21/17 16:26	71-43-2	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.4	1.2	1.55		03/21/17 16:26	106-93-4	
1,2-Dichloroethane	ND	ug/m3	0.64	0.32	1.55		03/21/17 16:26	107-06-2	
Ethylbenzene	ND	ug/m3	1.4	0.66	1.55		03/21/17 16:26	100-41-4	
Isopropylbenzene (Cumene)	ND	ug/m3	3.9	0.21	1.55		03/21/17 16:26	98-82-8	
Methyl-tert-butyl ether	ND	ug/m3	5.7	0.47	1.55		03/21/17 16:26	1634-04-4	
Naphthalene	ND	ug/m3	4.1	0.47	1.55		03/21/17 16:26	91-20-3	
Toluene	**5.9**	ug/m3	1.2	0.24	1.55		03/21/17 16:26	108-88-3	

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ANALYTICAL RESULTS

Project: 11109626-04 PES Indoor Air
Pace Project No.: 10381907

Sample: AOI3-AI-17-07 **Lab ID: 10381907015** Collected: 03/09/17 14:48 Received: 03/14/17 10:30 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
1,2,4-Trimethylbenzene	**1.9**	ug/m3	1.5	0.19	1.55		03/21/17 16:26	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.5	0.28	1.55		03/21/17 16:26	108-67-8	
Xylene (Total)	**5.5**	ug/m3	4.1	1.8	1.55		03/21/17 16:26	1330-20-7	
m&p-Xylene	**4.1**	ug/m3	2.7	1.2	1.55		03/21/17 16:26	179601-23-1	
o-Xylene	**1.4**	ug/m3	1.4	0.54	1.55		03/21/17 16:26	95-47-6	

Sample: AOI3-AI-17-08 **Lab ID: 10381907016** Collected: 03/09/17 16:05 Received: 03/14/17 10:30 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Benzene	**1.6**	ug/m3	0.68	0.25	2.08		03/23/17 00:14	71-43-2	
1,2-Dibromoethane (EDB)	**<1.6**	ug/m3	8.1	1.6	2.08		03/23/17 00:14	106-93-4	
1,2-Dichloroethane	**<0.43**	ug/m3	0.85	0.43	2.08		03/23/17 00:14	107-06-2	
Ethylbenzene	**<0.88**	ug/m3	4.6	0.88	2.08		03/23/17 00:14	100-41-4	
Isopropylbenzene (Cumene)	**<0.29**	ug/m3	5.2	0.29	2.08		03/23/17 00:14	98-82-8	
Methyl-tert-butyl ether	**<0.63**	ug/m3	7.6	0.63	2.08		03/23/17 00:14	1634-04-4	
Naphthalene	**1.2J**	ug/m3	5.5	0.63	2.08		03/23/17 00:14	91-20-3	
Toluene	**5.1**	ug/m3	1.6	0.32	2.08		03/23/17 00:14	108-88-3	C0
1,2,4-Trimethylbenzene	**3.6J**	ug/m3	5.2	0.26	2.08		03/23/17 00:14	95-63-6	
1,3,5-Trimethylbenzene	**<0.38**	ug/m3	5.2	0.38	2.08		03/23/17 00:14	108-67-8	
Xylene (Total)	**7.2**	ug/m3	5.5	2.4	2.08		03/23/17 00:14	1330-20-7	
m&p-Xylene	**7.2J**	ug/m3	9.2	1.6	2.08		03/23/17 00:14	179601-23-1	
o-Xylene	**<0.73**	ug/m3	4.6	0.73	2.08		03/23/17 00:14	95-47-6	

Sample: AOI4-AI-17-01 **Lab ID: 10381907017** Collected: 03/09/17 16:40 Received: 03/14/17 10:30 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Benzene	**3.0**	ug/m3	0.50	0.19	1.55		03/23/17 00:42	71-43-2	
1,2-Dibromoethane (EDB)	**<1.2**	ug/m3	6.1	1.2	1.55		03/23/17 00:42	106-93-4	
1,2-Dichloroethane	**<0.32**	ug/m3	0.64	0.32	1.55		03/23/17 00:42	107-06-2	
Ethylbenzene	**2.4J**	ug/m3	3.4	0.66	1.55		03/23/17 00:42	100-41-4	
Isopropylbenzene (Cumene)	**<0.21**	ug/m3	3.9	0.21	1.55		03/23/17 00:42	98-82-8	
Methyl-tert-butyl ether	**<0.47**	ug/m3	5.7	0.47	1.55		03/23/17 00:42	1634-04-4	
Naphthalene	**0.97J**	ug/m3	4.1	0.47	1.55		03/23/17 00:42	91-20-3	
Toluene	**3.6**	ug/m3	1.2	0.24	1.55		03/23/17 00:42	108-88-3	
1,2,4-Trimethylbenzene	**3.5J**	ug/m3	3.9	0.19	1.55		03/23/17 00:42	95-63-6	
1,3,5-Trimethylbenzene	**<0.28**	ug/m3	3.9	0.28	1.55		03/23/17 00:42	108-67-8	
Xylene (Total)	**9.2**	ug/m3	4.1	1.8	1.55		03/23/17 00:42	1330-20-7	
m&p-Xylene	**6.2J**	ug/m3	6.8	1.2	1.55		03/23/17 00:42	179601-23-1	

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ANALYTICAL RESULTS

Project: 11109626-04 PES Indoor Air
Pace Project No.: 10381907

Sample: AOI4-AI-17-01 **Lab ID: 10381907017** Collected: 03/09/17 16:40 Received: 03/14/17 10:30 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
o-Xylene	**3.0J**	ug/m3	3.4	0.54	1.55		03/23/17 00:42	95-47-6	

Sample: AOI4-AA-17-01 **Lab ID: 10381907018** Collected: 03/09/17 16:42 Received: 03/14/17 10:30 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Benzene	**2.4**	ug/m3	0.50	0.19	1.55		03/23/17 01:11	71-43-2	
1,2-Dibromoethane (EDB)	**<1.2**	ug/m3	6.1	1.2	1.55		03/23/17 01:11	106-93-4	
1,2-Dichloroethane	**<0.32**	ug/m3	0.64	0.32	1.55		03/23/17 01:11	107-06-2	
Ethylbenzene	**<0.66**	ug/m3	3.4	0.66	1.55		03/23/17 01:11	100-41-4	
Isopropylbenzene (Cumene)	**<0.21**	ug/m3	3.9	0.21	1.55		03/23/17 01:11	98-82-8	
Methyl-tert-butyl ether	**<0.47**	ug/m3	5.7	0.47	1.55		03/23/17 01:11	1634-04-4	
Naphthalene	**0.63J**	ug/m3	4.1	0.47	1.55		03/23/17 01:11	91-20-3	
Toluene	**3.1**	ug/m3	1.2	0.24	1.55		03/23/17 01:11	108-88-3	
1,2,4-Trimethylbenzene	**2.7J**	ug/m3	3.9	0.19	1.55		03/23/17 01:11	95-63-6	
1,3,5-Trimethylbenzene	**<0.28**	ug/m3	3.9	0.28	1.55		03/23/17 01:11	108-67-8	
Xylene (Total)	**5.4**	ug/m3	4.1	1.8	1.55		03/23/17 01:11	1330-20-7	
m&p-Xylene	**5.4J**	ug/m3	6.8	1.2	1.55		03/23/17 01:11	179601-23-1	
o-Xylene	**<0.54**	ug/m3	3.4	0.54	1.55		03/23/17 01:11	95-47-6	

Sample: AOI8-AI-17-09 **Lab ID: 10381907019** Collected: 03/09/17 16:10 Received: 03/14/17 10:30 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Benzene	**4.7**	ug/m3	0.45	0.17	1.39		03/23/17 17:01	71-43-2	
1,2-Dibromoethane (EDB)	**<1.1**	ug/m3	5.4	1.1	1.39		03/23/17 17:01	106-93-4	
1,2-Dichloroethane	**<0.28**	ug/m3	0.57	0.28	1.39		03/23/17 17:01	107-06-2	
Ethylbenzene	**2.7J**	ug/m3	3.1	0.59	1.39		03/23/17 17:01	100-41-4	
Isopropylbenzene (Cumene)	**<0.19**	ug/m3	3.5	0.19	1.39		03/23/17 17:01	98-82-8	
Methyl-tert-butyl ether	**0.46J**	ug/m3	5.1	0.42	1.39		03/23/17 17:01	1634-04-4	
Naphthalene	**1.7J**	ug/m3	3.7	0.42	1.39		03/23/17 17:01	91-20-3	
Toluene	**9.9**	ug/m3	1.1	0.21	1.39		03/23/17 17:01	108-88-3	
1,2,4-Trimethylbenzene	**3.2J**	ug/m3	3.5	0.17	1.39		03/23/17 17:01	95-63-6	
1,3,5-Trimethylbenzene	**2.8J**	ug/m3	3.5	0.25	1.39		03/23/17 17:01	108-67-8	
Xylene (Total)	**11.2**	ug/m3	3.7	1.6	1.39		03/23/17 17:01	1330-20-7	
m&p-Xylene	**7.7**	ug/m3	6.1	1.1	1.39		03/23/17 17:01	179601-23-1	
o-Xylene	**3.4**	ug/m3	3.1	0.49	1.39		03/23/17 17:01	95-47-6	

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ANALYTICAL RESULTS

Project: 11109626-04 PES Indoor Air
Pace Project No.: 10381907

Sample: AOI8-AI-17-10 **Lab ID: 10381907020** Collected: 03/09/17 16:17 Received: 03/14/17 10:30 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Benzene	**0.60**	ug/m3	0.48	0.18	1.49		03/23/17 01:39	71-43-2	
1,2-Dibromoethane (EDB)	**<1.2**	ug/m3	5.8	1.2	1.49		03/23/17 01:39	106-93-4	
1,2-Dichloroethane	**<0.31**	ug/m3	0.61	0.31	1.49		03/23/17 01:39	107-06-2	
Ethylbenzene	**<0.63**	ug/m3	3.3	0.63	1.49		03/23/17 01:39	100-41-4	
Isopropylbenzene (Cumene)	**<0.21**	ug/m3	3.7	0.21	1.49		03/23/17 01:39	98-82-8	
Methyl-tert-butyl ether	**<0.45**	ug/m3	5.5	0.45	1.49		03/23/17 01:39	1634-04-4	
Naphthalene	**0.79J**	ug/m3	4.0	0.45	1.49		03/23/17 01:39	91-20-3	
Toluene	**2.0**	ug/m3	1.1	0.23	1.49		03/23/17 01:39	108-88-3	
1,2,4-Trimethylbenzene	**2.8J**	ug/m3	3.7	0.19	1.49		03/23/17 01:39	95-63-6	
1,3,5-Trimethylbenzene	**<0.27**	ug/m3	3.7	0.27	1.49		03/23/17 01:39	108-67-8	
Xylene (Total)	**5.0**	ug/m3	3.9	1.7	1.49		03/23/17 01:39	1330-20-7	
m&p-Xylene	**5.0J**	ug/m3	6.6	1.2	1.49		03/23/17 01:39	179601-23-1	
o-Xylene	**<0.52**	ug/m3	3.3	0.52	1.49		03/23/17 01:39	95-47-6	

Sample: AOI8-AI-17-11 **Lab ID: 10381907021** Collected: 03/09/17 16:42 Received: 03/14/17 10:30 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Benzene	**0.60**	ug/m3	0.48	0.18	1.49		03/23/17 02:08	71-43-2	
1,2-Dibromoethane (EDB)	**<1.2**	ug/m3	5.8	1.2	1.49		03/23/17 02:08	106-93-4	
1,2-Dichloroethane	**<0.31**	ug/m3	0.61	0.31	1.49		03/23/17 02:08	107-06-2	
Ethylbenzene	**<0.63**	ug/m3	3.3	0.63	1.49		03/23/17 02:08	100-41-4	
Isopropylbenzene (Cumene)	**<0.21**	ug/m3	3.7	0.21	1.49		03/23/17 02:08	98-82-8	
Methyl-tert-butyl ether	**<0.45**	ug/m3	5.5	0.45	1.49		03/23/17 02:08	1634-04-4	
Naphthalene	**<0.45**	ug/m3	4.0	0.45	1.49		03/23/17 02:08	91-20-3	
Toluene	**2.2**	ug/m3	1.1	0.23	1.49		03/23/17 02:08	108-88-3	
1,2,4-Trimethylbenzene	**2.4J**	ug/m3	3.7	0.19	1.49		03/23/17 02:08	95-63-6	
1,3,5-Trimethylbenzene	**<0.27**	ug/m3	3.7	0.27	1.49		03/23/17 02:08	108-67-8	
Xylene (Total)	**<1.7**	ug/m3	3.9	1.7	1.49		03/23/17 02:08	1330-20-7	
m&p-Xylene	**<1.2**	ug/m3	6.6	1.2	1.49		03/23/17 02:08	179601-23-1	
o-Xylene	**<0.52**	ug/m3	3.3	0.52	1.49		03/23/17 02:08	95-47-6	

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QUALITY CONTROL DATA

Project: 11109626-04 PES Indoor Air
Pace Project No.: 10381907

QC Batch: 464884
QC Batch Method: TO-15
Analysis Method: TO-15
Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 10381907008, 10381907015

METHOD BLANK: 2541576
Matrix: Air
Associated Lab Samples: 10381907008, 10381907015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/m3	ND	1.0	0.12	03/21/17 09:38	
1,2-Dibromoethane (EDB)	ug/m3	ND	1.6	0.77	03/21/17 09:38	
1,2-Dichloroethane	ug/m3	ND	0.41	0.20	03/21/17 09:38	
1,3,5-Trimethylbenzene	ug/m3	ND	1.0	0.18	03/21/17 09:38	
Benzene	ug/m3	ND	0.32	0.12	03/21/17 09:38	
Ethylbenzene	ug/m3	ND	0.88	0.42	03/21/17 09:38	
Isopropylbenzene (Cumene)	ug/m3	ND	2.5	0.14	03/21/17 09:38	
m&p-Xylene	ug/m3	ND	1.8	0.79	03/21/17 09:38	
Methyl-tert-butyl ether	ug/m3	ND	3.7	0.30	03/21/17 09:38	
Naphthalene	ug/m3	ND	2.7	0.30	03/21/17 09:38	
o-Xylene	ug/m3	ND	0.88	0.35	03/21/17 09:38	
Toluene	ug/m3	ND	0.77	0.15	03/21/17 09:38	
Xylene (Total)	ug/m3	ND	2.6	1.1	03/21/17 09:38	

LABORATORY CONTROL SAMPLE: 2541577

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/m3	50	60.4	121	75-136	
1,2-Dibromoethane (EDB)	ug/m3	78.1	92.6	119	75-128	
1,2-Dichloroethane	ug/m3	41.1	41.6	101	75-130	
1,3,5-Trimethylbenzene	ug/m3	50	60.3	121	75-133	
Benzene	ug/m3	32.5	34.6	107	75-129	
Ethylbenzene	ug/m3	44.1	53.5	121	75-134	
Isopropylbenzene (Cumene)	ug/m3	50	57.6	115	75-140	
m&p-Xylene	ug/m3	88.3	104	118	75-129	
Methyl-tert-butyl ether	ug/m3	91.6	96.6	105	66-148	
Naphthalene	ug/m3	53.3	45.3	85	53-150	SS
o-Xylene	ug/m3	44.1	50.5	114	75-129	
Toluene	ug/m3	38.3	43.2	113	75-129	
Xylene (Total)	ug/m3	132	154	117	72-141	

SAMPLE DUPLICATE: 2542457

Parameter	Units	10381907008 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/m3	4.4	4.4	0	25	
1,2-Dibromoethane (EDB)	ug/m3	ND	ND		25	
1,2-Dichloroethane	ug/m3	ND	ND		25	
1,3,5-Trimethylbenzene	ug/m3	ND	ND		25	

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QUALITY CONTROL DATA

Project: 11109626-04 PES Indoor Air
Pace Project No.: 10381907

SAMPLE DUPLICATE: 2542457

Parameter	Units	10381907008 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzene	ug/m3	8.2	8.5	4	25	
Ethylbenzene	ug/m3	1.7	1.7	1	25	
Isopropylbenzene (Cumene)	ug/m3	ND	ND		25	
m&p-Xylene	ug/m3	6.4	6.3	2	25	
Methyl-tert-butyl ether	ug/m3	ND	ND		25	
Naphthalene	ug/m3	ND	ND		25	
o-Xylene	ug/m3	2.4	2.5	5	25	
Toluene	ug/m3	7.3	7.5	3	25	
Xylene (Total)	ug/m3	8.8	8.8	0		

SAMPLE DUPLICATE: 2542458

Parameter	Units	10381907015 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/m3	1.9	1.7	11	25	
1,2-Dibromoethane (EDB)	ug/m3	ND	ND		25	
1,2-Dichloroethane	ug/m3	ND	ND		25	
1,3,5-Trimethylbenzene	ug/m3	ND	.72J		25	
Benzene	ug/m3	2.2	2.2	3	25	
Ethylbenzene	ug/m3	ND	1J		25	
Isopropylbenzene (Cumene)	ug/m3	ND	ND		25	
m&p-Xylene	ug/m3	4.1	3.9	5	25	
Methyl-tert-butyl ether	ug/m3	ND	ND		25	
Naphthalene	ug/m3	ND	ND		25	
o-Xylene	ug/m3	1.4	ND		25	
Toluene	ug/m3	5.9	5.9	1	25	
Xylene (Total)	ug/m3	5.5	3.9J			

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QUALITY CONTROL DATA

Project: 11109626-04 PES Indoor Air
Pace Project No.: 10381907

QC Batch: 465212 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 10381907003, 10381907004, 10381907005, 10381907006, 10381907007, 10381907016, 10381907017, 10381907018, 10381907020, 10381907021

METHOD BLANK: 2543547 Matrix: Air
Associated Lab Samples: 10381907003, 10381907004, 10381907005, 10381907006, 10381907007, 10381907016, 10381907017, 10381907018, 10381907020, 10381907021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/m3	<0.12	2.5	0.12	03/22/17 20:54	
1,2-Dibromoethane (EDB)	ug/m3	<0.77	3.9	0.77	03/22/17 20:54	
1,2-Dichloroethane	ug/m3	<0.20	0.41	0.20	03/22/17 20:54	
1,3,5-Trimethylbenzene	ug/m3	<0.18	2.5	0.18	03/22/17 20:54	
Benzene	ug/m3	<0.12	0.32	0.12	03/22/17 20:54	
Ethylbenzene	ug/m3	<0.42	2.2	0.42	03/22/17 20:54	
Isopropylbenzene (Cumene)	ug/m3	<0.14	2.5	0.14	03/22/17 20:54	
m&p-Xylene	ug/m3	<0.79	4.4	0.79	03/22/17 20:54	
Methyl-tert-butyl ether	ug/m3	<0.30	3.7	0.30	03/22/17 20:54	
Naphthalene	ug/m3	<0.30	2.7	0.30	03/22/17 20:54	
o-Xylene	ug/m3	<0.35	2.2	0.35	03/22/17 20:54	
Toluene	ug/m3	<0.15	0.77	0.15	03/22/17 20:54	
Xylene (Total)	ug/m3	<1.1	2.6	1.1	03/22/17 20:54	

LABORATORY CONTROL SAMPLE: 2543548

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/m3	51.5	35.9	70	70-136	
1,2-Dibromoethane (EDB)	ug/m3	83.6	60.9	73	70-130	
1,2-Dichloroethane	ug/m3	44	40.9	93	70-130	
1,3,5-Trimethylbenzene	ug/m3	51.5	35.8	70	70-133	
Benzene	ug/m3	34.7	32.5	94	70-130	
Ethylbenzene	ug/m3	47.7	34.0	71	70-134	
Isopropylbenzene (Cumene)	ug/m3	51.5	36.8	71	70-140	
m&p-Xylene	ug/m3	47.7	35.7	75	70-130	
Methyl-tert-butyl ether	ug/m3	38.8	38.9	100	66-148	
Naphthalene	ug/m3	56	35.1	63	53-150	
o-Xylene	ug/m3	47.2	33.1	70	70-130	
Toluene	ug/m3	41.4	32.9	80	70-130	
Xylene (Total)	ug/m3	94.9	68.8	72	70-141	

SAMPLE DUPLICATE: 2543549

Parameter	Units	10382287001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/m3	3.1J	3.2J		25	
1,2-Dibromoethane (EDB)	ug/m3	<1.5	<1.5		25	
1,2-Dichloroethane	ug/m3	<0.39	<0.39		25	

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QUALITY CONTROL DATA

Project: 11109626-04 PES Indoor Air
Pace Project No.: 10381907

SAMPLE DUPLICATE: 2543549

Parameter	Units	10382287001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,3,5-Trimethylbenzene	ug/m3	<0.34	<0.34		25	
Benzene	ug/m3	19.4	18.8	3	25	
Ethylbenzene	ug/m3	5.2	5.1	2	25	
Isopropylbenzene (Cumene)	ug/m3	<0.26	<0.26		25	
m&p-Xylene	ug/m3	19.9	19.8	1	25	
Methyl-tert-butyl ether	ug/m3	<0.57	<0.57		25	
Naphthalene	ug/m3	1.4J	<0.57		25	
o-Xylene	ug/m3	10.5	10.3	2	25	
Toluene	ug/m3	3.1	3.2	1	25	
Xylene (Total)	ug/m3	30.4	30.1	1		

SAMPLE DUPLICATE: 2543550

Parameter	Units	10382287002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/m3	2.6J	2.6J		25	
1,2-Dibromoethane (EDB)	ug/m3	<1.2	<1.2		25	
1,2-Dichloroethane	ug/m3	<0.31	<0.31		25	
1,3,5-Trimethylbenzene	ug/m3	<0.27	<0.27		25	
Benzene	ug/m3	7.0	7.4	5	25	
Ethylbenzene	ug/m3	2.4J	2.5J		25	
Isopropylbenzene (Cumene)	ug/m3	<0.21	<0.21		25	
m&p-Xylene	ug/m3	6.2J	6.3J		25	
Methyl-tert-butyl ether	ug/m3	<0.45	<0.45		25	
Naphthalene	ug/m3	0.78J	<0.45		25	
o-Xylene	ug/m3	2.9J	2.8J		25	
Toluene	ug/m3	4.1	4.3	5	25	
Xylene (Total)	ug/m3	9.0	9.2	1		

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QUALITY CONTROL DATA

Project: 11109626-04 PES Indoor Air
Pace Project No.: 10381907

QC Batch: 465254
QC Batch Method: TO-15
Analysis Method: TO-15
Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 10381907001

METHOD BLANK: 2543655
Matrix: Air
Associated Lab Samples: 10381907001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/m3	<0.12	2.5	0.12	03/22/17 14:21	
1,2-Dibromoethane (EDB)	ug/m3	<0.77	1.6	0.77	03/22/17 14:21	
1,2-Dichloroethane	ug/m3	<0.20	0.82	0.20	03/22/17 14:21	
1,3,5-Trimethylbenzene	ug/m3	<0.18	2.5	0.18	03/22/17 14:21	
Benzene	ug/m3	<0.12	0.65	0.12	03/22/17 14:21	
Ethylbenzene	ug/m3	<0.42	2.2	0.42	03/22/17 14:21	
Isopropylbenzene (Cumene)	ug/m3	<0.14	2.5	0.14	03/22/17 14:21	
m&p-Xylene	ug/m3	<0.79	1.8	0.79	03/22/17 14:21	
Methyl-tert-butyl ether	ug/m3	<0.30	3.7	0.30	03/22/17 14:21	
Naphthalene	ug/m3	2.6J	2.7	0.30	03/22/17 14:21	
o-Xylene	ug/m3	<0.35	2.2	0.35	03/22/17 14:21	
Toluene	ug/m3	<0.15	0.77	0.15	03/22/17 14:21	
Xylene (Total)	ug/m3	<1.1	2.6	1.1	03/22/17 14:21	

LABORATORY CONTROL SAMPLE: 2543656

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/m3	50	42.3	85	70-136	
1,2-Dibromoethane (EDB)	ug/m3	78.1	85.9	110	70-130	
1,2-Dichloroethane	ug/m3	41.1	31.0	75	70-130	
1,3,5-Trimethylbenzene	ug/m3	50	43.3	87	70-133	
Benzene	ug/m3	32.5	24.2	75	70-130	
Ethylbenzene	ug/m3	44.1	38.1	86	70-134	
Isopropylbenzene (Cumene)	ug/m3	50	58.8	118	70-140	
m&p-Xylene	ug/m3	88.3	78.5	89	70-130	
Methyl-tert-butyl ether	ug/m3	91.6	68.2	74	66-148	
Naphthalene	ug/m3	53.3	47.5	89	53-150	
o-Xylene	ug/m3	44.1	37.6	85	70-130	
Toluene	ug/m3	38.3	34.6	90	70-130	
Xylene (Total)	ug/m3	132	116	88	70-141	

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QUALITY CONTROL DATA

Project: 11109626-04 PES Indoor Air
Pace Project No.: 10381907

QC Batch: 465257 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 10381907009, 10381907010, 10381907011, 10381907012, 10381907013, 10381907014, 10381907019

METHOD BLANK: 2543663 Matrix: Air
Associated Lab Samples: 10381907009, 10381907010, 10381907011, 10381907012, 10381907013, 10381907014, 10381907019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/m3	<0.12	2.5	0.12	03/23/17 11:43	
1,2-Dibromoethane (EDB)	ug/m3	<0.77	3.9	0.77	03/23/17 11:43	
1,2-Dichloroethane	ug/m3	<0.20	0.41	0.20	03/23/17 11:43	
1,3,5-Trimethylbenzene	ug/m3	<0.18	2.5	0.18	03/23/17 11:43	
Benzene	ug/m3	<0.12	0.32	0.12	03/23/17 11:43	
Ethylbenzene	ug/m3	<0.42	2.2	0.42	03/23/17 11:43	
Isopropylbenzene (Cumene)	ug/m3	<0.14	2.5	0.14	03/23/17 11:43	
m&p-Xylene	ug/m3	<0.79	4.4	0.79	03/23/17 11:43	
Methyl-tert-butyl ether	ug/m3	<0.30	3.7	0.30	03/23/17 11:43	
Naphthalene	ug/m3	<0.30	2.7	0.30	03/23/17 11:43	
o-Xylene	ug/m3	<0.35	2.2	0.35	03/23/17 11:43	
Toluene	ug/m3	<0.15	0.77	0.15	03/23/17 11:43	
Xylene (Total)	ug/m3	<1.1	2.6	1.1	03/23/17 11:43	

LABORATORY CONTROL SAMPLE: 2543664

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/m3	50	53.9	108	70-136	
1,2-Dibromoethane (EDB)	ug/m3	78.1	82.6	106	70-130	
1,2-Dichloroethane	ug/m3	41.1	53.5	130	70-130	CH
1,3,5-Trimethylbenzene	ug/m3	50	54.2	109	70-133	
Benzene	ug/m3	32.5	40.4	124	70-130	
Ethylbenzene	ug/m3	44.1	46.6	106	70-134	
Isopropylbenzene (Cumene)	ug/m3	50	54.7	110	70-140	
m&p-Xylene	ug/m3	88.3	91.4	104	70-130	
Methyl-tert-butyl ether	ug/m3	91.6	111	121	66-148	
Naphthalene	ug/m3	53.3	61.3	115	53-150	
o-Xylene	ug/m3	44.1	46.2	105	70-130	
Toluene	ug/m3	38.3	39.7	104	70-130	
Xylene (Total)	ug/m3	132	138	104	70-141	

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QUALIFIERS

Project: 11109626-04 PES Indoor Air
Pace Project No.: 10381907

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

C0	Result confirmed by second analysis.
CH	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
SS	This analyte did not meet the secondary source verification criteria for the initial calibration. The reported result should be considered an estimated value.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 11109626-04 PES Indoor Air
Pace Project No.: 10381907

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10381907001	**AOI6-AI-17-09**	TO-15	465254		
10381907003	**AOI6-AI-17-11**	TO-15	465212		
10381907004	**AOI6-AI-17-12**	TO-15	465212		
10381907005	**AOI6-AI-17-13**	TO-15	465212		
10381907006	**AOI6-AI-17-14**	TO-15	465212		
10381907007	**AOI6-AI-17-06**	TO-15	465212		
10381907008	**AOI6-AI-17-07R**	TO-15	464884		
10381907009	**AOI3-AI-17-01**	TO-15	465257		
10381907010	**AOI3-AI-17-02**	TO-15	465257		
10381907011	**AOI3-AI-17-03**	TO-15	465257		
10381907012	**AOI3-AI-17-04**	TO-15	465257		
10381907013	**AOI3-AI-17-05**	TO-15	465257		
10381907014	**AOI3-AI-17-06**	TO-15	465257		
10381907015	**AOI3-AI-17-07**	TO-15	464884		
10381907016	**AOI3-AI-17-08**	TO-15	465212		
10381907017	**AOI4-AI-17-01**	TO-15	465212		
10381907018	**AOI4-AA-17-01**	TO-15	465212		
10381907019	**AOI8-AI-17-09**	TO-15	465257		
10381907020	**AOI8-AI-17-10**	TO-15	465212		
10381907021	**AOI8-AI-17-11**	TO-15	465212		

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AIR: CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

26267

Page: 1 of 2

Section A Required Client Information:

Company: GHD
Address: 410 Eagleview Blvd, #110, Exton, PA 19341
Email To: David.Steele@ghd.com
Phone: 610 321 1800 Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: David Steele
Copy To:
Purchase Order No.: 11109626-04
Project Name: PES Indoor Air Sampling
Project Number: 11109626-04

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager/Sales Rep.
Pace Profile #:

Program: ☐ UST ☐ Superfund ☐ Emissions ☐ Clean Air Act ☐ Voluntary Clean Up ☐ Dry Clean ☐ RCRA ☐ Other

Location of Sampling by State:

Reporting Units: ug/m³ ___ mg/m³ ___ PPBV ___ PPMV ___ Other ___

Report Level: II.___ III.___ IV.___ Other___

'Section D Required Client Information

AIR SAMPLE ID
Sample IDs MUST BE UNIQUE

Valid Media Codes

MEDIA	CODE
Tedlar Bag	TB
1 Liter Summa Can	1LC
6 Liter Summa Can	6LC
Low Volume Puff	LVP
High Volume Puff	HVP
Other	PM10

ITEM #	AIR SAMPLE ID	MEDIA CODE	PID Reading (Client only)	COLLECTED COMPOSITE START END/GRAB DATE	TIME	COMPOSITE - DATE	TIME	Canister Pressure (Initial Field - psig)	Canister Pressure (Final Field - psig)	Summa Can Number	Flow Control Number	Method: PM10	3C- Fixed Gas (%)	TO-3	TO-3M (Methane)	TO-4 (PCBs)	TO-13 (PAH)	TO-14	TO-15	TO15 Short List*	Pace Lab ID
1	AOI6-AI-17-09	6LC		3-8-17	0803	3-8-17	1603	-30†	5.0	06868	0102 4									✓	10381907 001
2	AOI6-AI-17-10	6LC		3-8-17	0818	3-8-17	1537	-27	0.0	08650	0091 1									✓	002
3	AOI6-AI-17-11	6LC		3-8-17	0827	3-8-17	1627	-30	3.5	34190	1116 1									✓	003
4	AOI6-AI-17-12	6LC		3-8-17	0842	3-8-17	1638	-29.5	0.0	16280	1419									✓	004
5	AOI6-AI-17-13	6LC		3-8-17	0834	3-8-17	1634	-30	1.0	34066	0091 6									✓	005
6	AOI6-AI-17-14	6LC		3-8-17	0900	3-8-17	1708	-30	2.0	08620	0451 2									✓	006
7	~~AOI6-AI-17-22~~ (FCR)	6LC		~~3-8-17~~	~~0814~~	~~3-8-17~~	~~1712~~	~~-30†~~	~~0.0~~	~~08549~~	~~8212~~									✓	
8	AOI6-AI-17-06	6LC		3-8-17	0955	3-8-17	1755	-29.0	0.0	34200	0116 7									✓	007
9	AOI6-AI-17-07R	6LC		3-9-17	0857	3-9-17	1657	~~-30†~~ -4	1.3	50F/C	0304									✓	008
10	AOI3-AI-17-01	6LC		3-9-17	0656	3-9-17	1456	-30†	-6†	08520	0905									✓	009
11	AOI3-AI-17-02	6LC		3-9-17	0705	3-9-17	1505	-30†	-2	38130	2126									✓	010
12	AOI3-AI-17-03	6LC		3-9-17	0658	3-9-17	1459	-30†	-7†	38140	4532									✓	011

Comments:

Benzene, Toluene, Ethylbenzene, Xylenes (o-, m-, p- isomers), Cumene, Naphthalene, MTBE, 1,2,4 Trimethylbenzene, 1,3,5-Trimethylbenzene, 1,2-Dibromoethane, 1,2-Dichloroethane

ORIGINAL

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	3/10/17	1215		3/10/17	1215
	3/14/17	1330		3/14/17	0970

SAMPLE CONDITIONS

	Y/N	Y/N	Y/N
LN3	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
Temp in °C	Received on Ice Y/N	Custody Sealed Cooler Y/N	Samples Intact Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Donovan Young
SIGNATURE of SAMPLER:
DATE Signed (MM / DD / YY): 03/08/17

Pace Analytical®
www.pacelabs.com

AIR: CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

26302

Section A Required Client Information:

Company: GHD
Address: 410 Eagleview Blvd, #110, Exton, PA 19341
Email To: David.Stucke@ghd.com
Phone: 610-321-8805 Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: David Stucke
Copy To:
Purchase Order No.: 11109626-04
Project Name: PES Indoor Air Sampling
Project Number: 11109626-04

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager/Sales Rep.
Pace Profile #:

Program: ☐ UST ☐ Superfund ☐ Emissions ☐ Clean Air Act ☐ Voluntary Clean Up ☐ Dry Clean ☐ RCRA ☐ Other

Location of Sampling by State:

Reporting Units: ug/m³ mg/m³ PPBV PPMV Other

Report Level: II. III. IV. Other

Method: PM10 | 3C- Fixed Gas (%) | TO-3 | TO-3M (Methane) | TO-4 (PCBs) | TO-13 (PAH) | TO-14 | TO-15 | TO15 Short List*

Valid Media Codes: Tedlar Bag TB; 1 Liter Summa Can 1LC; 6 Liter Summa Can 6LC; Low Volume Puff LVP; High Volume Puff HVP; Other PM10

ITEM #	'Section D Required Client Information AIR SAMPLE ID (Sample IDs MUST BE UNIQUE)	MEDIA CODE	PID Reading (Client only)	COLLECTED COMPOSITE START END/GRAB DATE	TIME	COMPOSITE - DATE	TIME	Canister Pressure (Initial Field - psig)	Canister Pressure (Final Field - psig)	Summa Can Number	Flow Control Number	TO-15	Pace Lab ID
1	AOI3-AI-17-04	6LC		3-9-17	0707	3-9-17	1507	-30†	-4†	08633	0102 9	✓	012
2	AOI3-AI-17-05	6LC		3-9-17	0707	3-9-17	1446	-29	0.0	08534	0207 6	✓	013
3	AOI3-AI-17-06	6LC		3-9-17	0703	3-9-17	1503	-30†	-2	08466	0231	✓	014
4	AOI3-AI-17-07	6LC		3-9-17	0648	3-9-17	1448	-30†	-4†	16488	F/C 0307	✓	015
5	AOI3-AI-17-08	6LC		3-9-17	0757	3-9-17	1608	-30	-4	31738	F/C 0362	✓	016
6	~~AOI3-AI-17-01~~	6LC		3-9-17	0840							✓	~~017~~
7	~~AOI6-AI-17-15~~	6LC		3-9-17	1230							✓	~~18~~
8	AOI4-AI-17-01	6LC		3-9-17	0840	3-9-17	1640	-29	-5	13398	F/C 1014	✓	017
9	AOI4-AA-17-01	6LC		3-9-17	0842	3-9-17	1642	-30†	-5	13444	F/C 0514	✓	~~20~~ 018
10	AOI8-AI-17-09	6LC		3-9-17	0759	3-9-17	1610	-30†	-5.5	16690	0107 7	✓	~~2~~ 019
11	AOI8-AI-17-10	6LC		3-9-17	0811	3-9-17	1617	-30	-4	01533	0312	✓	020
12	AOI8-AI-17-11	6LC		3-9-17	0838	3-9-17	1642	-30	-4	00974	0047	✓	021

CW 3/15/17

Comments :

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	3/10/17	1215		3/10/17	1215
	3/14/17	1330		3/14/17	10:30

SAMPLE CONDITIONS

	Temp in °C	Received on Ice Y/N	Custody Sealed Cooler Y/N	Samples Intact Y/N
AMB		Y/N	Y/N	Y/N
		Y/N	Y/N	Y/N
		Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed (MM / DD / YY)

ORIGINAL

Pace Analytical	Document Name: Air Sample Condition Upon Receipt	Document Revised: 26APR2016 Page 1 of 1
	Document No.: F-MN-A-106-rev.11	Issuing Authority: Pace Minnesota Quality Office

Air Sample Condition Upon Receipt

Client Name: GHD

Project #: WO#: 10381907

10381907

Courier: [X] Fed Ex [ ] UPS [ ] Speedee [ ] Client [ ] Commercial [ ] Pace [ ] Other:

Tracking Number: 7858 6984 7161; 5926; 7150, 7140, 7172 5917, 7139, 7128, 5940, 5939, 5906

Custody Seal on Cooler/Box Present? [ ] Yes [X] No **Seals Intact?** [ ] Yes [X] No

Optional: Proj. Due Date: Proj. Name:

Packing Material: [ ] Bubble Wrap [ ] Bubble Bags [X] Foam [ ] None [ ] Tin Can [ ] Other: **Temp Blank rec:** [ ] Yes [X] No

Temp. (TO17 and TO13 samples only) (°C): — **Corrected Temp (°C):** — **Thermom. Used:** [ ] B88A912167504 [ ] B88A0143310098 [ ] 151401163 [ ] 151401164

Temp should be above freezing to 6°C **Correction Factor:** AMB **Date & Initials of Person Examining Contents:** CLH 3/14/17

Type of ice Received [ ] Blue [ ] Wet [ ] None

				Comments:
Chain of Custody Present?	[X] Yes	[ ] No	[ ] N/A	1.
Chain of Custody Filled Out?	[X] Yes	[ ] No	[ ] N/A	2.
Chain of Custody Relinquished?	[X] Yes	[ ] No	[ ] N/A	3.
Sampler Name and/or Signature on COC?	[ ] Yes	[ ] No	[ ] N/A	4.
Samples Arrived within Hold Time?	[ ] Yes	[ ] No	[ ] N/A	5.
Short Hold Time Analysis (<72 hr)?	[ ] Yes	[X] No	[ ] N/A	6.
Rush Turn Around Time Requested?	[ ] Yes	[X] No	[ ] N/A	7.
Sufficient Volume?	[X] Yes	[ ] No	[ ] N/A	8.
Correct Containers Used?	[X] Yes	[ ] No	[ ] N/A	9.
-Pace Containers Used?	[X] Yes	[ ] No	[ ] N/A	
Containers Intact?	[X] Yes	[ ] No	[ ] N/A	10.
Media: Air Can Airbag Filter TDT Passive				11.
Sample Labels Match COC?	[X] Yes	[ ] No	[ ] N/A	12. Part of order received 3/15/17 1090

Samples Received: FF, FT

Canisters			Canisters		
Sample Number	Can ID	Flow Controller ID	Sample Number	Can ID	Flow Controller ID
AOI6-AI-17-09	*0868	*01024	AOI3-AI-17-03	*3814	*04332
" 10	*0865	*00911	" " 04	*0863	*01029
" 11	*3419	*01161	05	*0853	*02076
" 12	*1626	*01419	06	*0866	*02131
" 13	*3406	*00916	07	*2836	0307
" 14	*862	*04512	08	*1373	0362
" 06	*3420	*01167	AOI4-AI-17-01	*~~0857~~ 1339	~~00905~~ 1014
" 07R	*1350	0304	AA-01	*~~1339~~ 1344	~~1014~~ 0514
AOI3 " 01	0852	*00905	AOI6-09	CLH 3/14/17 ~~*0153~~ 1669	*~~FC0312~~ 01077
" 02	*3813	*02126	" 10	*0153	FC 0312

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** [ ] Yes [ ] No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Nathan Boberg **Date:** 3/16/17

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical	Document Name: Air Sample Condition Upon Receipt	Document Revised: 26APR2016 Page 1 of 1
	Document No.: F-MN-A-106-rev.11	Issuing Authority: Pace Minnesota Quality Office

Air Sample Condition Upon Receipt **Client Name:** **Project #:**

Courier: ☐Fed Ex ☐UPS ☐Speedee ☐Client ☐Commercial ☐Pace ☐Other:_____

Tracking Number: _____

Custody Seal on Cooler/Box Present? ☐Yes ☐No **Seals Intact?** ☐Yes ☐No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐Bubble Wrap ☐Bubble Bags ☐Foam ☐None ☐Tin Can ☐Other:_____ **Temp Blank rec:** ☐Yes ☐No

Temp. (TO17 and TO13 samples only) (°C): _____ **Corrected Temp (°C):** _____ **Thermom. Used:** ☐B88A912167504 ☐B88A0143310098 ☐151401163 ☐151401164

Temp should be above freezing to 6°C **Correction Factor:** _____ **Date & Initials of Person Examining Contents:** _____

Type of ice Received ☐Blue ☐Wet ☐None

				Comments:
Chain of Custody Present?	☐Yes	☐No	☐N/A	1.
Chain of Custody Filled Out?	☐Yes	☐No	☐N/A	2.
Chain of Custody Relinquished?	☐Yes	☐No	☐N/A	3.
Sampler Name and/or Signature on COC?	☐Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time?	☐Yes	☐No	☐N/A	5.
Short Hold Time Analysis (<72 hr)?	☐Yes	☐No	☐N/A	6.
Rush Turn Around Time Requested?	☐Yes	☐No	☐N/A	7.
Sufficient Volume?	☐Yes	☐No	☐N/A	8.
Correct Containers Used?	☐Yes	☐No	☐N/A	9.
-Pace Containers Used?	☐Yes	☐No	☐N/A	
Containers Intact?	☐Yes	☐No	☐N/A	10.
Media: Air Can Airbag Filter TDT Passive				11.
Sample Labels Match COC?	☐Yes	☐No	☐N/A	12.

Samples Received:

Canisters			Canisters		
Sample Number	Can ID	Flow Controller ID	Sample Number	Can ID	Flow Controller ID
AOI8-AP-1711	# 0097	FC0047			

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐Yes ☐No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: Nathan Boberg **Date:** 3/16/17

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

November 16, 2018

Mr. Mike Sarcinello
Aquaterra Technologies
122 South Church Street
West Chester, PA 19381

RE: Project: Philadelphia Refinery AO14
Pace Project No.: 30271414

Dear Mr. Sarcinello:
Enclosed are the analytical results for sample(s) received by the laboratory on November 12, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel D Christner

Rachel Christner
rachel.christner@pacelabs.com
724-850-5611
Project Manager

Enclosures

cc: Mr. Luke Mokrycki, Aquaterra

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CERTIFICATIONS

Project: Philadelphia Refinery AO14
Pace Project No.: 30271414

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: Philadelphia Refinery AO14
Pace Project No.: 30271414

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30271414001	**S-374-20181108-WG**	Water	11/08/18 13:00	11/12/18 22:50
30271414002	**S-375-20181108-WG**	Water	11/08/18 14:15	11/12/18 22:50
30271414003	**S-376-20181108-WG**	Water	11/08/18 15:20	11/12/18 22:50

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Philadelphia Refinery AO14
Pace Project No.: 30271414

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30271414001	**S-374-20181108-WG**	EPA 8011	TAW	2	PASI-PA
		EPA 8260B	JAS	13	PASI-PA
30271414002	**S-375-20181108-WG**	EPA 8011	TAW	2	PASI-PA
		EPA 8260B	JAS	13	PASI-PA
30271414003	**S-376-20181108-WG**	EPA 8011	TAW	2	PASI-PA
		EPA 8260B	JAS	13	PASI-PA

REPORT OF LABORATORY ANALYSIS

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Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: Philadelphia Refinery AO14
Pace Project No.: 30271414

Method: **EPA 8011**
Description: 8011 GCS EDB and DBCP
Client: Sunoco_Aquaterra Technologies
Date: November 16, 2018

General Information:
3 samples were analyzed for EPA 8011. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 8011 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 320712

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

Analyte Comments:

QC Batch: 320712

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- S-374-20181108-WG (Lab ID: 30271414001)
  - 1,2-Dibromoethane (EDB)
- S-375-20181108-WG (Lab ID: 30271414002)
  - 1,2-Dibromoethane (EDB)
- S-376-20181108-WG (Lab ID: 30271414003)
  - 1,2-Dibromoethane (EDB)

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PROJECT NARRATIVE

Project: Philadelphia Refinery AO14
Pace Project No.: 30271414

Method: **EPA 8260B**
Description: 8260B MSV
Client: Sunoco_Aquaterra Technologies
Date: November 16, 2018

General Information:
3 samples were analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 320473

S2: Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample re-analysis).

- S-374-20181108-WG (Lab ID: 30271414001)
  - Dibromofluoromethane (S)
- S-375-20181108-WG (Lab ID: 30271414002)
  - Dibromofluoromethane (S)
- S-376-20181108-WG (Lab ID: 30271414003)
  - Dibromofluoromethane (S)

SR: Surrogate recovery was below laboratory control limits. Results may be biased low.

- S-374-20181108-WG (Lab ID: 30271414001)
  - Dibromofluoromethane (S)
- S-375-20181108-WG (Lab ID: 30271414002)
  - Dibromofluoromethane (S)
- S-376-20181108-WG (Lab ID: 30271414003)
  - Dibromofluoromethane (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

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Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: Philadelphia Refinery AO14
Pace Project No.: 30271414

Method: **EPA 8260B**
Description: 8260B MSV
Client: Sunoco_Aquaterra Technologies
Date: November 16, 2018

QC Batch: 320473

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30271160001

ML: Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.

- MS (Lab ID: 1563612)
  - Methyl-tert-butyl ether
- MSD (Lab ID: 1563613)
  - Methyl-tert-butyl ether

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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Greensburg, PA 15601
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ANALYTICAL RESULTS

Project: Philadelphia Refinery AO14
Pace Project No.: 30271414

Sample: S-374-20181108-WG **Lab ID: 30271414001** Collected: 11/08/18 13:00 Received: 11/12/18 22:50 Matrix: Water

Comments: • Samples in this workorder were received in the laboratory without an associated trip blank.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**0.053**	ug/L	0.041	0.031	1	11/15/18 12:20	11/15/18 19:02	106-93-4	1c
Surrogates									
1,1,1,2-Tetrachloroethane (S)	75	%.	60-140		1	11/15/18 12:20	11/15/18 19:02	630-20-6	
8260B MSV	Analytical Method: EPA 8260B								
Benzene	**177**	ug/L	1.0	0.24	1		11/14/18 16:02	71-43-2	
1,2-Dichloroethane	**1.0 U**	ug/L	1.0	0.25	1		11/14/18 16:02	107-06-2	
Ethylbenzene	**1360**	ug/L	10.0	3.1	10		11/14/18 16:28	100-41-4	
Isopropylbenzene (Cumene)	**93.4**	ug/L	1.0	0.24	1		11/14/18 16:02	98-82-8	
Methyl-tert-butyl ether	**1.0 U**	ug/L	1.0	0.23	1		11/14/18 16:02	1634-04-4	
Toluene	**1820**	ug/L	10.0	3.0	10		11/14/18 16:28	108-88-3	
1,2,4-Trimethylbenzene	**1040**	ug/L	10.0	2.5	10		11/14/18 16:28	95-63-6	
1,3,5-Trimethylbenzene	**179**	ug/L	1.0	0.21	1		11/14/18 16:02	108-67-8	
Xylene (Total)	**4170**	ug/L	30.0	7.8	10		11/14/18 16:28	1330-20-7	
Surrogates									
Toluene-d8 (S)	86	%.	80-120		1		11/14/18 16:02	2037-26-5	
4-Bromofluorobenzene (S)	99	%.	79-129		1		11/14/18 16:02	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%.	80-120		1		11/14/18 16:02	17060-07-0	
Dibromofluoromethane (S)	75	%.	80-120		1		11/14/18 16:02	1868-53-7	S2,SR

REPORT OF LABORATORY ANALYSIS

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Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: Philadelphia Refinery AO14
Pace Project No.: 30271414

Sample: S-375-20181108-WG **Lab ID: 30271414002** Collected: 11/08/18 14:15 Received: 11/12/18 22:50 Matrix: Water

Comments: • Samples in this workorder were received in the laboratory without an associated trip blank.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**0.075**	ug/L	0.040	0.031	1	11/15/18 12:20	11/15/18 19:14	106-93-4	1c
Surrogates									
1,1,1,2-Tetrachloroethane (S)	78	%.	60-140		1	11/15/18 12:20	11/15/18 19:14	630-20-6	
8260B MSV	Analytical Method: EPA 8260B								
Benzene	**1900**	ug/L	10.0	2.4	10		11/14/18 17:21	71-43-2	
1,2-Dichloroethane	**1.0 U**	ug/L	1.0	0.25	1		11/14/18 16:54	107-06-2	
Ethylbenzene	**641**	ug/L	10.0	3.1	10		11/14/18 17:21	100-41-4	
Isopropylbenzene (Cumene)	**31.7**	ug/L	1.0	0.24	1		11/14/18 16:54	98-82-8	
Methyl-tert-butyl ether	**0.58J**	ug/L	1.0	0.23	1		11/14/18 16:54	1634-04-4	
Toluene	**3340**	ug/L	10.0	3.0	10		11/14/18 17:21	108-88-3	
1,2,4-Trimethylbenzene	**743**	ug/L	10.0	2.5	10		11/14/18 17:21	95-63-6	
1,3,5-Trimethylbenzene	**231**	ug/L	1.0	0.21	1		11/14/18 16:54	108-67-8	
Xylene (Total)	**4820**	ug/L	30.0	7.8	10		11/14/18 17:21	1330-20-7	
Surrogates									
Toluene-d8 (S)	103	%.	80-120		1		11/14/18 16:54	2037-26-5	
4-Bromofluorobenzene (S)	103	%.	79-129		1		11/14/18 16:54	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%.	80-120		1		11/14/18 16:54	17060-07-0	
Dibromofluoromethane (S)	74	%.	80-120		1		11/14/18 16:54	1868-53-7	S2,SR

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ANALYTICAL RESULTS

Project: Philadelphia Refinery AO14
Pace Project No.: 30271414

Sample: S-376-20181108-WG **Lab ID: 30271414003** Collected: 11/08/18 15:20 Received: 11/12/18 22:50 Matrix: Water

Comments: • Samples in this workorder were received in the laboratory without an associated trip blank.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**0.079**	ug/L	0.040	0.031	1	11/15/18 12:20	11/15/18 19:27	106-93-4	1c
Surrogates									
1,1,1,2-Tetrachloroethane (S)	70	%.	60-140		1	11/15/18 12:20	11/15/18 19:27	630-20-6	
8260B MSV	Analytical Method: EPA 8260B								
Benzene	**101**	ug/L	1.0	0.24	1		11/14/18 17:47	71-43-2	
1,2-Dichloroethane	**1.0 U**	ug/L	1.0	0.25	1		11/14/18 17:47	107-06-2	
Ethylbenzene	**302**	ug/L	1.0	0.31	1		11/14/18 17:47	100-41-4	
Isopropylbenzene (Cumene)	**14.2**	ug/L	1.0	0.24	1		11/14/18 17:47	98-82-8	
Methyl-tert-butyl ether	**3.4**	ug/L	1.0	0.23	1		11/14/18 17:47	1634-04-4	
Toluene	**1660**	ug/L	10.0	3.0	10		11/14/18 18:14	108-88-3	
1,2,4-Trimethylbenzene	**759**	ug/L	10.0	2.5	10		11/14/18 18:14	95-63-6	
1,3,5-Trimethylbenzene	**284**	ug/L	1.0	0.21	1		11/14/18 17:47	108-67-8	
Xylene (Total)	**3930**	ug/L	30.0	7.8	10		11/14/18 18:14	1330-20-7	
Surrogates									
Toluene-d8 (S)	104	%.	80-120		1		11/14/18 17:47	2037-26-5	
4-Bromofluorobenzene (S)	100	%.	79-129		1		11/14/18 17:47	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%.	80-120		1		11/14/18 17:47	17060-07-0	
Dibromofluoromethane (S)	70	%.	80-120		1		11/14/18 17:47	1868-53-7	S2,SR

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QUALITY CONTROL DATA

Project: Philadelphia Refinery AO14
Pace Project No.: 30271414

QC Batch: 320712 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 30271414001, 30271414002, 30271414003

METHOD BLANK: 1564225 Matrix: Water
Associated Lab Samples: 30271414001, 30271414002, 30271414003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	0.040 U	0.040	0.031	11/15/18 18:36	
1,1,1,2-Tetrachloroethane (S)	%.	100	60-140		11/15/18 18:36	

LABORATORY CONTROL SAMPLE: 1564226

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.25	0.22	87	85-115	
1,1,1,2-Tetrachloroethane (S)	%.			84	60-140	

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QUALITY CONTROL DATA

Project: Philadelphia Refinery AO14
Pace Project No.: 30271414

QC Batch: 320473 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260B MSV UST-WATER
Associated Lab Samples: 30271414001, 30271414002, 30271414003

METHOD BLANK: 1563338 Matrix: Water
Associated Lab Samples: 30271414001, 30271414002, 30271414003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	1.0 U	1.0	0.25	11/14/18 13:23	
1,2-Dichloroethane	ug/L	1.0 U	1.0	0.25	11/14/18 13:23	
1,3,5-Trimethylbenzene	ug/L	1.0 U	1.0	0.21	11/14/18 13:23	
Benzene	ug/L	1.0 U	1.0	0.24	11/14/18 13:23	
Ethylbenzene	ug/L	1.0 U	1.0	0.31	11/14/18 13:23	
Isopropylbenzene (Cumene)	ug/L	1.0 U	1.0	0.24	11/14/18 13:23	
Methyl-tert-butyl ether	ug/L	1.0 U	1.0	0.23	11/14/18 13:23	
Toluene	ug/L	1.0 U	1.0	0.30	11/14/18 13:23	
Xylene (Total)	ug/L	3.0 U	3.0	0.78	11/14/18 13:23	
1,2-Dichloroethane-d4 (S)	%.	98	80-120		11/14/18 13:23	
4-Bromofluorobenzene (S)	%.	102	79-129		11/14/18 13:23	
Dibromofluoromethane (S)	%.	94	80-120		11/14/18 13:23	
Toluene-d8 (S)	%.	105	80-120		11/14/18 13:23	

LABORATORY CONTROL SAMPLE: 1563339

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/L	20	19.8	99	70-130	
1,2-Dichloroethane	ug/L	20	16.0	80	70-130	
1,3,5-Trimethylbenzene	ug/L	20	19.2	96	70-130	
Benzene	ug/L	20	16.8	84	70-130	
Ethylbenzene	ug/L	20	19.1	95	70-130	
Isopropylbenzene (Cumene)	ug/L	20	19.8	99	70-130	
Methyl-tert-butyl ether	ug/L	20	17.5	87	70-130	
Toluene	ug/L	20	19.6	98	70-130	
Xylene (Total)	ug/L	60	58.9	98	70-130	
1,2-Dichloroethane-d4 (S)	%.			104	80-120	
4-Bromofluorobenzene (S)	%.			101	79-129	
Dibromofluoromethane (S)	%.			99	80-120	
Toluene-d8 (S)	%.			108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1563612 1563613

Parameter	Units	30271160001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2,4-Trimethylbenzene	ug/L	ND	20	20	21.2	21.3	106	107	75-125	1	30	
1,2-Dichloroethane	ug/L	ND	20	20	16.6	16.2	83	81	69-116	2	30	
1,3,5-Trimethylbenzene	ug/L	ND	20	20	19.8	20.3	99	101	76-121	2	30	

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QUALITY CONTROL DATA

Project: Philadelphia Refinery AO14
Pace Project No.: 30271414

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1563612 1563613

Parameter	Units	30271160001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	ND	20	20	17.7	17.7	88	88	67-121	0	30	
Ethylbenzene	ug/L	ND	20	20	20.5	20.2	103	101	70-127	1	30	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	20.2	19.6	101	98	80-122	3	30	
Methyl-tert-butyl ether	ug/L	142	20	20	155	154	62	62	79-135	0	30	ML
Toluene	ug/L	ND	20	20	21.1	20.9	105	105	77-125	1	30	
Xylene (Total)	ug/L	ND	60	60	62.8	62.3	105	104	69-128	1	30	
1,2-Dichloroethane-d4 (S)	%.						100	93	80-120			
4-Bromofluorobenzene (S)	%.						102	99	79-129			
Dibromofluoromethane (S)	%.						93	93	80-120			
Toluene-d8 (S)	%.						109	107	80-120			

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QUALIFIERS

Project: Philadelphia Refinery AO14
Pace Project No.: 30271414

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA	Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: 320712

[M5]	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

1c	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.
ML	Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.
S2	Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample re-analysis).
SR	Surrogate recovery was below laboratory control limits. Results may be biased low.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Philadelphia Refinery AO14
Pace Project No.: 30271414

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30271414001	**S-374-20181108-WG**	EPA 8011	320712	EPA 8011	320818
30271414002	**S-375-20181108-WG**	EPA 8011	320712	EPA 8011	320818
30271414003	**S-376-20181108-WG**	EPA 8011	320712	EPA 8011	320818
30271414001	**S-374-20181108-WG**	EPA 8260B	320473		
30271414002	**S-375-20181108-WG**	EPA 8260B	320473		
30271414003	**S-376-20181108-WG**	EPA 8260B	320473		

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Pittsburgh, PA 15238
412-826-5245

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: of

013452

Section A Required Client Information:

Company: Aquatera Tech.
Address: 122 S Church St West Chester PA
Email To: MS@Aquatechtrailer
Phone: 484/940-8112 Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: Mike Sprindle
Copy To:
Purchase Order No.: Amanda
Project Name: Philadelphia Refinery Acid Tank Work
Project Number:

Section C Invoice Information:

Attention:
Company Name: Aquatera
Address: 122 S Church St West Chester PA
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER _____

Site Location STATE: _____

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE)

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

Requested Analysis Filtered (Y/N)

WO# : 30271414

30271414

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	TSP	BAK	Zinc Acetate & NaOH	Other	Analysis Test: Y/N	Filtered (Y/N)	8260 BTEX+MTBE	Residua	Pace Project No./ Lab I.D.
1	S-375-20181108-WG	GW	G			11/8/18	1300		9				X						X	X		001
2	S-375-20181108-WG	GW	G			11/8/18	1415		3				X						X			002
3	S-376-20181108-WG	GW	G			11/8/18	1500		9				X						X	X		003
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Jason Milowich	11/8/18	0900	Aquatera Refinery	11/8/18	0900				
	Aquatera	11/9/18	1210		11/9/18	12:10				
		11/12/18	13:45		11-12-18	1900		Y		
		11-12-18	2250		11/12/18	2250	30	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Jason Milowich

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 11/8/18

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

ORIGINAL

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Evergreen Petroleum Short List (June 2016)

VOCs by EPA Method 8260	CAS No.
Benzene	71-43-2
Cumene	98-82-8
Dichloroethane, 1,2-	107-06-2
Ethylbenzene	100-41-4
Ethylene Dibromide*	106-93-4
Methyl tert butyl ether	1634-04-4
Toluene	108-88-3
Trimethylbenzene, 1,2,4-	95-63-6
Trimethylbenzene, 1,3,5-	108-67-8
Xylenes	1330-20-7

30271414

SVOCs by EPA Method 8270	CAS No.
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(a)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Chrysene	218-01-9
Fluorene	86-73-7
Naphthalene**	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Metals by Method 6010/6020	CAS No.
Lead***	7439-92-1

*Ethylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

**Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

***Metals analysis should be total in soil and dissolved in groundwater.

This list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline and No. 1, 2, 4, 5, 6 Fuel Oils).

Pittsburgh Lab Sample Condition Upon Receipt

Pace Analytical

Client Name: Aquaterra

Project# 30271414

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other _____

Label BRH
LIMS Login BRH

Tracking #: N/A

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Thermometer Used 9 Type of Ice: (Wet) Blue None

Cooler Temperature Observed Temp 3.1 °C Correction Factor: -0.1 °C Final Temp: 3.0 °C

Temp should be above freezing to 6°C

pH paper Lot# N/A

Date and Initials of person examining contents: BRH 11/13/18

Comments:	Yes	No	N/A	
Chain of Custody Present:	✓			1.
Chain of Custody Filled Out:	✓			2.
Chain of Custody Relinquished:	✓			3.
Sampler Name & Signature on COC:	✓			4.
Sample Labels match COC: -Includes date/time/ID Matrix: WT	✓			5.
Samples Arrived within Hold Time:	✓			6.
Short Hold Time Analysis (<72hr remaining):		✓		7.
Rush Turn Around Time Requested:		✓		8.
Sufficient Volume:	✓			9.
Correct Containers Used:	✓			10.
-Pace Containers Used:		✓		
Containers Intact:	✓			11.
Orthophosphate field filtered			✓	12.
Hex Cr Aqueous Compliance/NPDES sample field filtered			✓	13.
Organic Samples checked for dechlorination:			✓	14.
Filtered volume received for Dissolved tests			✓	15.
All containers have been checked for preservation.			✓	16.
All containers needing preservation are found to be in compliance with EPA recommendation.			✓	
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed BRH Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):		✓		17.
Trip Blank Present:		✓		18.
Trip Blank Custody Seals Present			✓	
Rad Aqueous Samples Screened > 0.5 mrem/hr			✓	Initial when completed: BRH Date: 11/13/18

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

☐ **A check in this box indicates that additional information has been stored in ereports.**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-4783-1
Client Project/Site: PHL Penrose Drilling Sampling

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Andrew Klingbeil

Authorized for release by:
7/29/2020 2:59:48 PM

Amek Carter, Project Manager
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LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 5
Detection Summary 7
Client Sample Results 9
Surrogate Summary 15
QC Sample Results 18
QC Association Summary 29
Lab Chronicle 34
Certification Summary 37
Method Summary 38
Sample Summary 39
Chain of Custody 40
Receipt Checklists 42

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
XH	Surrogate recovery is above control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
XH	Surrogate recovery is above control limits

GC Semi VOA

Qualifier	Qualifier Description
XL	Surrogate recovery is below control limits

HPLC/IC

Qualifier	Qualifier Description
*L	LCS and/or LCSD recovery below control limits.
^c	CCV Recovery is outside acceptance limits.
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-4783-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-4783-1

Receipt
The samples were received on 6/17/2020 5:00 PM; the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.1°C and 3.6°C

Receipt Exceptions
The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): CD-15-W-40.0-20200617 (410-4783-4). 14 containers were received for CD-15-W-40.0-20200617 while the COC lists 12.

GC/MS VOA
Method 8260C_UST: The concentration reported for 2-Methyl-2-propanol is estimated since itexceeds the calibration range of the instrument for sample CD-15-W-40.0-20200617 (410-4783-4).

Method 8260C_UST: The method requirement for no headspace was not met. The following volatile samples were analyzed with headspace in the sample container(s): CD-15-W-25.0-20200616 (410-4783-3) and CD-15-W-40.0-20200617 (410-4783-4).

Method 8260C_UST: Only a laboratory control sample (LCS) was analyzed for analytical batch 410-18232 which recovered within acceptance limits. There was insufficient sample to perform a re-extraction or re-analysis; therefore, the data has been reported.

Method 8260C_UST: The internal and surrogate standard (IS/SS) used at the time of sample analysis was expired for CD-15-W-40.0-20200617 (410-4783-4). The internal standard (IS) responses were within acceptance limits. The surrogate recoveries were outside acceptance limits. The sample(s) was not re-analyzed due to insufficient volume.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gasoline Range Organics
Method 8015C_GRO: The following sample(s) were collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, vials were discarded before pH could be recorded due to length of time between analysis and reporting: CD-15-W-25.0-20200616 (410-4783-3) and CD-15-W-40.0-20200617 (410-4783-4).

Method 8015C_GRO: Surrogate recovery was outside control limits for the following sample: CD-15-W-25.0-20200616 (410-4783-3) and CD-15-W-40.0-20200617 (410-4783-4). Could not confirm due to samples past hold and have headspace.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
Method 8015C_DRO: O-terphenyl and chlorobenzene surrogate recovery for the following samples in preparation batch 410-15421 and analytical batch 410-17081 was below the lower control limit: CD-15-S-5.0-20200616 (410-4783-1) and CD-15-S-25.0-20200616 (410-4783-2). This sample did not contain any target analytes. Since re-extraction would be performed past hold time, the client was contacted and the data reported

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA

Job ID: 410-4783-1 (Continued)

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Conti

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

Method 300_ORGFM_28D: The continuing calibration verification (CCV) associated with batch 410-15795 recovered below the lower control limit for chloride.

Method 300_ORGFMS: The following sample was analyzed outside of analytical holding time due to analyst error: CD-15-W-25.0-20200616 (410-4783-3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-4783-1

Client Sample ID: CD-15-S-5.0-20200616 — Lab Sample ID: 410-4783-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	4.5	J	20	4.0	ug/Kg	1	☼	8270D	Total/NA
Pyrene	7.0	J	20	4.0	ug/Kg	1	☼	8270D	Total/NA
Lead	19		1.5	0.60	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: CD-15-S-25.0-20200616 — Lab Sample ID: 410-4783-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tertiary butyl ether	1.3	J	5.3	0.53	ug/Kg	1	☼	8260C	Total/NA
C4-C12-TPH-GRO	99	J	120	47	ug/Kg	1	☼	8260C	Total/NA
Naphthalene	11	J	20	8.1	ug/Kg	1	☼	8270D	Total/NA
Lead	5.0		1.3	0.52	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: CD-15-W-25.0-20200616 — Lab Sample ID: 410-4783-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tertiary butyl ether	6.4		1.0	0.20	ug/L	1		8260C/UST	Total/NA
C5-C12 (1C)	46	J	50	14	ug/L	1		8015C	Total/NA
Methane (1C)	6.5		5.0	3.0	ug/L	1		RSK-175	Total/NA
>C12-C22 (1C)	0.29		0.11	0.040	mg/L	1		8015C	Total/NA
>C22-C44 (1C)	0.94		0.11	0.040	mg/L	1		8015C	Total/NA
Total Reported TPH	1.2		0.20	0.074	mg/L	1		Total TPH	Total/NA
Sulfate	3.3	J	5.0	1.5	mg/L	5		300.0	Total/NA
Chloride	7.4	^c	2.0	1.0	mg/L	5		300.0	Total/NA
Calcium	42		0.20	0.096	mg/L	1		6010C	Total Recoverable
Magnesium	32		0.10	0.040	mg/L	1		6010C	Total Recoverable
Potassium	7.6		0.50	0.20	mg/L	1		6010C	Total Recoverable
Sodium	40		1.0	0.24	mg/L	1		6010C	Total Recoverable
Iron	130		0.20	0.040	mg/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	84		8.0	8.0	mg/L	1		SM 2320B	Total/NA
Ammonia-N	0.83	J	1.1	0.36	mg/L	1		SM4500 NH3	Total/NA

Client Sample ID: CD-15-W-40.0-20200617 — Lab Sample ID: 410-4783-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tertiary butyl ether	49		1.0	0.20	ug/L	1		8260C/UST	Total/NA
2-Methyl-2-propanol	1200	E	50	12	ug/L	1		8260C/UST	Total/NA
C5-C12 (1C)	200		50	14	ug/L	1		8015C	Total/NA
Methane (1C)	47		5.0	3.0	ug/L	1		RSK-175	Total/NA
Ethylene Dibromide (1C)	0.036		0.028	0.0095	ug/L	1		8011	Total/NA
>C12-C22 (1C)	0.77		0.095	0.035	mg/L	1		8015C	Total/NA
>C22-C44 (1C)	1.1		0.095	0.035	mg/L	1		8015C	Total/NA
Total Reported TPH	1.9		0.20	0.074	mg/L	1		Total TPH	Total/NA
Sulfate	5.5		5.0	1.5	mg/L	5		300.0	Total/NA
Chloride	9.9	^c	2.0	1.0	mg/L	5		300.0	Total/NA
Calcium	41		0.20	0.096	mg/L	1		6010C	Total Recoverable
Magnesium	21		0.10	0.040	mg/L	1		6010C	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: CD-15-W-40.0-20200617 (Continued)

Lab Sample ID: 410-4783-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	5.0		0.50	0.20	mg/L	1		6010C	Total Recoverable
Sodium	99		1.0	0.24	mg/L	1		6010C	Total Recoverable
Iron	30		0.20	0.040	mg/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	130		8.0	8.0	mg/L	1		SM 2320B	Total/NA
Ammonia-N	0.87	J	1.1	0.36	mg/L	1		SM4500 NH3	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CD-15-S-5.0-20200616

Date Collected: 06/16/20 11:45
Date Received: 06/17/20 17:00

Lab Sample ID: 410-4783-1

Matrix: Solid
Percent Solids: 83.2

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		6.9	0.55	ug/Kg	☼	06/18/20 10:32	06/30/20 14:47	1
1,3,5-Trimethylbenzene	ND		6.9	0.69	ug/Kg	☼	06/18/20 10:32	06/30/20 14:47	1
Toluene	ND		6.9	0.83	ug/Kg	☼	06/18/20 10:32	06/30/20 14:47	1
Methyl tertiary butyl ether	ND		6.9	0.69	ug/Kg	☼	06/18/20 10:32	06/30/20 14:47	1
Benzene	ND		6.9	0.69	ug/Kg	☼	06/18/20 10:32	06/30/20 14:47	1
Naphthalene	ND		6.9	2.8	ug/Kg	☼	06/18/20 10:32	06/30/20 14:47	1
1,2,4-Trimethylbenzene	ND		6.9	0.69	ug/Kg	☼	06/18/20 10:32	06/30/20 14:47	1
Isopropylbenzene	ND		6.9	0.55	ug/Kg	☼	06/18/20 10:32	06/30/20 14:47	1
1,2-Dibromoethane	ND		6.9	0.55	ug/Kg	☼	06/18/20 10:32	06/30/20 14:47	1
1,2-Dichloroethane	ND		6.9	0.83	ug/Kg	☼	06/18/20 10:32	06/30/20 14:47	1
C4-C12-TPH-GRO	ND		150	61	ug/Kg	☼	06/18/20 10:32	06/30/20 14:47	1
Xylenes, Total	ND		14	1.9	ug/Kg	☼	06/18/20 10:32	06/30/20 14:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*54 - 135*	*06/18/20 10:32*	*06/30/20 14:47*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*54 - 135*	*06/18/20 10:32*	*06/30/20 15:10*	*1*
4-Bromofluorobenzene (Surr)	*95*		*50 - 131*	*06/18/20 10:32*	*06/30/20 14:47*	*1*
4-Bromofluorobenzene (Surr)	*95*		*50 - 131*	*06/18/20 10:32*	*06/30/20 15:10*	*1*
Dibromofluoromethane (Surr)	*97*		*50 - 141*	*06/18/20 10:32*	*06/30/20 14:47*	*1*
Dibromofluoromethane (Surr)	*97*		*50 - 141*	*06/18/20 10:32*	*06/30/20 15:10*	*1*
Toluene-d8 (Surr)	*100*		*52 - 141*	*06/18/20 10:32*	*06/30/20 14:47*	*1*
Toluene-d8 (Surr)	*99*		*52 - 141*	*06/18/20 10:32*	*06/30/20 15:10*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		20	4.0	ug/Kg	☼	06/22/20 09:00	06/23/20 13:05	1
Benzo[a]anthracene	ND		20	8.0	ug/Kg	☼	06/22/20 09:00	06/23/20 13:05	1
Benzo[a]pyrene	ND		20	4.0	ug/Kg	☼	06/22/20 09:00	06/23/20 13:05	1
Benzo[b]fluoranthene	ND		20	4.0	ug/Kg	☼	06/22/20 09:00	06/23/20 13:05	1
Benzo[g,h,i]perylene	ND		20	4.0	ug/Kg	☼	06/22/20 09:00	06/23/20 13:05	1
Chrysene	ND		20	4.0	ug/Kg	☼	06/22/20 09:00	06/23/20 13:05	1
Fluorene	ND		20	4.0	ug/Kg	☼	06/22/20 09:00	06/23/20 13:05	1
Naphthalene	ND		20	8.0	ug/Kg	☼	06/22/20 09:00	06/23/20 13:05	1
Phenanthrene	**4.5**	**J**	20	4.0	ug/Kg	☼	06/22/20 09:00	06/23/20 13:05	1
Pyrene	**7.0**	**J**	20	4.0	ug/Kg	☼	06/22/20 09:00	06/23/20 13:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14 (Surr)	*70*		*35 - 135*	*06/22/20 09:00*	*06/23/20 13:05*	*1*
Nitrobenzene-d5 (Surr)	*61*		*23 - 115*	*06/22/20 09:00*	*06/23/20 13:05*	*1*
2-Fluorobiphenyl (Surr)	*65*		*34 - 117*	*06/22/20 09:00*	*06/23/20 13:05*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		14	5.9	mg/Kg	☼	06/22/20 16:16	06/25/20 14:41	1
>C22-C44 (1C)	ND		14	5.9	mg/Kg	☼	06/22/20 16:16	06/25/20 14:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*6*	*XL*	*54 - 137*	*06/22/20 16:16*	*06/25/20 14:41*	*1*
o- terphenyl (Surr) (1C)	*16*	*XL*	*42 - 143*	*06/22/20 16:16*	*06/25/20 14:41*	*1*

Client Sample ID: CD-15-S-5.0-20200616

Lab Sample ID: 410-4783-1

Date Collected: 06/16/20 11:45
Matrix: Solid
Date Received: 06/17/20 17:00
Percent Solids: 83.2

Method: Total TPH - Total TPH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Reported TPH	ND		14	6.0	mg/Kg	☼		07/31/20 09:17	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**19**		1.5	0.60	mg/Kg	☼	06/24/20 07:09	06/24/20 23:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**16.8**		1.0	1.0	%			06/18/20 06:48	1

Client Sample ID: CD-15-S-25.0-20200616

Lab Sample ID: 410-4783-2

Date Collected: 06/16/20 13:40
Matrix: Solid
Date Received: 06/17/20 17:00
Percent Solids: 81.9

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		5.3	0.43	ug/Kg	☼	06/18/20 10:32	06/30/20 15:33	1
1,3,5-Trimethylbenzene	ND		5.3	0.53	ug/Kg	☼	06/18/20 10:32	06/30/20 15:33	1
Toluene	ND		5.3	0.64	ug/Kg	☼	06/18/20 10:32	06/30/20 15:33	1
Methyl tertiary butyl ether	**1.3**	**J**	5.3	0.53	ug/Kg	☼	06/18/20 10:32	06/30/20 15:33	1
Benzene	ND		5.3	0.53	ug/Kg	☼	06/18/20 10:32	06/30/20 15:33	1
Naphthalene	ND		5.3	2.1	ug/Kg	☼	06/18/20 10:32	06/30/20 15:33	1
1,2,4-Trimethylbenzene	ND		5.3	0.53	ug/Kg	☼	06/18/20 10:32	06/30/20 15:33	1
Isopropylbenzene	ND		5.3	0.43	ug/Kg	☼	06/18/20 10:32	06/30/20 15:33	1
1,2-Dibromoethane	ND		5.3	0.43	ug/Kg	☼	06/18/20 10:32	06/30/20 15:33	1
1,2-Dichloroethane	ND		5.3	0.64	ug/Kg	☼	06/18/20 10:32	06/30/20 15:33	1
C4-C12-TPH-GRO	**99**	**J**	120	47	ug/Kg	☼	06/18/20 10:32	06/30/20 15:33	1
Xylenes, Total	ND		11	1.5	ug/Kg	☼	06/18/20 10:32	06/30/20 15:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*54 - 135*	*06/18/20 10:32*	*06/30/20 15:33*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*54 - 135*	*06/18/20 10:32*	*06/30/20 15:56*	*1*
4-Bromofluorobenzene (Surr)	*94*		*50 - 131*	*06/18/20 10:32*	*06/30/20 15:33*	*1*
4-Bromofluorobenzene (Surr)	*94*		*50 - 131*	*06/18/20 10:32*	*06/30/20 15:56*	*1*
Dibromofluoromethane (Surr)	*98*		*50 - 141*	*06/18/20 10:32*	*06/30/20 15:33*	*1*
Dibromofluoromethane (Surr)	*97*		*50 - 141*	*06/18/20 10:32*	*06/30/20 15:56*	*1*
Toluene-d8 (Surr)	*100*		*52 - 141*	*06/18/20 10:32*	*06/30/20 15:33*	*1*
Toluene-d8 (Surr)	*100*		*52 - 141*	*06/18/20 10:32*	*06/30/20 15:56*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		20	4.1	ug/Kg	☼	06/22/20 09:00	06/23/20 13:29	1
Benzo[a]anthracene	ND		20	8.1	ug/Kg	☼	06/22/20 09:00	06/23/20 13:29	1
Benzo[a]pyrene	ND		20	4.1	ug/Kg	☼	06/22/20 09:00	06/23/20 13:29	1
Benzo[b]fluoranthene	ND		20	4.1	ug/Kg	☼	06/22/20 09:00	06/23/20 13:29	1
Benzo[g,h,i]perylene	ND		20	4.1	ug/Kg	☼	06/22/20 09:00	06/23/20 13:29	1
Chrysene	ND		20	4.1	ug/Kg	☼	06/22/20 09:00	06/23/20 13:29	1
Fluorene	ND		20	4.1	ug/Kg	☼	06/22/20 09:00	06/23/20 13:29	1
Naphthalene	**11**	**J**	20	8.1	ug/Kg	☼	06/22/20 09:00	06/23/20 13:29	1
Phenanthrene	ND		20	4.1	ug/Kg	☼	06/22/20 09:00	06/23/20 13:29	1
Pyrene	ND		20	4.1	ug/Kg	☼	06/22/20 09:00	06/23/20 13:29	1

Client Sample ID: CD-15-S-25.0-20200616

Lab Sample ID: 410-4783-2

Date Collected: 06/16/20 13:40
Matrix: Solid
Date Received: 06/17/20 17:00
Percent Solids: 81.9

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14 (Surr)	*61*		*35 - 135*	*06/22/20 09:00*	*06/23/20 13:29*	*1*
Nitrobenzene-d5 (Surr)	*55*		*23 - 115*	*06/22/20 09:00*	*06/23/20 13:29*	*1*
2-Fluorobiphenyl (Surr)	*63*		*34 - 117*	*06/22/20 09:00*	*06/23/20 13:29*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		15	6.0	mg/Kg	☼	06/22/20 16:16	06/25/20 15:03	1
>C22-C44 (1C)	ND		15	6.0	mg/Kg	☼	06/22/20 16:16	06/25/20 15:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*12*	*XL*	*54 - 137*	*06/22/20 16:16*	*06/25/20 15:03*	*1*
o- terphenyl (Surr) (1C)	*34*	*XL*	*42 - 143*	*06/22/20 16:16*	*06/25/20 15:03*	*1*

Method: Total TPH - Total TPH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Reported TPH	ND		15	6.1	mg/Kg	☼		07/31/20 09:17	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**5.0**		1.3	0.52	mg/Kg	☼	06/24/20 07:09	06/24/20 23:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**18.1**		1.0	1.0	%			06/18/20 06:48	1

Client Sample ID: CD-15-W-25.0-20200616

Lab Sample ID: 410-4783-3

Date Collected: 06/16/20 15:30
Matrix: Water
Date Received: 06/17/20 17:00

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			06/30/20 23:12	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			06/30/20 23:12	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			06/30/20 23:12	1
Benzene	ND		1.0	0.20	ug/L			06/30/20 23:12	1
Ethylbenzene	ND		1.0	0.40	ug/L			06/30/20 23:12	1
Isopropylbenzene	ND		5.0	0.20	ug/L			06/30/20 23:12	1
Methyl tertiary butyl ether	**6.4**		1.0	0.20	ug/L			06/30/20 23:12	1
Naphthalene	ND		5.0	1.0	ug/L			06/30/20 23:12	1
Toluene	ND		1.0	0.20	ug/L			06/30/20 23:12	1
Xylenes, Total	ND		6.0	1.4	ug/L			06/30/20 23:12	1
2-Methyl-2-propanol	ND		50	12	ug/L			06/30/20 23:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*80 - 120*		*06/30/20 23:12*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*06/30/20 23:12*	*1*
Dibromofluoromethane (Surr)	*100*		*80 - 120*		*06/30/20 23:12*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*06/30/20 23:12*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C12 (1C)	**46**	**J**	50	14	ug/L			06/23/20 23:20	1

Client Sample ID: CD-15-W-25.0-20200616

Date Collected: 06/16/20 15:30
Date Received: 06/17/20 17:00

Lab Sample ID: 410-4783-3

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (fid) (1C)	*147*	*XH*	*63 - 135*		*06/23/20 23:20*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		06/30/20 10:29	06/30/20 20:09	1
Ethene (1C)	ND		5.0	1.0	ug/L		06/30/20 10:29	06/30/20 20:09	1
Methane (1C)	**6.5**		5.0	3.0	ug/L		06/30/20 10:29	06/30/20 20:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*82*		*28 - 140*	*06/30/20 10:29*	*06/30/20 20:09*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0098	ug/L		06/22/20 22:03	06/27/20 07:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*50*		*46 - 136*	*06/22/20 22:03*	*06/27/20 07:22*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*45*	*XL*	*46 - 136*	*06/22/20 22:03*	*06/27/20 07:22*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	**0.29**		0.11	0.040	mg/L		06/23/20 00:47	06/25/20 11:00	1
>C22-C44 (1C)	**0.94**		0.11	0.040	mg/L		06/23/20 00:47	06/25/20 11:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*71*		*21 - 116*	*06/23/20 00:47*	*06/25/20 11:00*	*1*
o- terphenyl (Surr) (1C)	*88*		*51 - 126*	*06/23/20 00:47*	*06/25/20 11:00*	*1*

Method: Total TPH - Total TPH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Reported TPH	**1.2**		0.20	0.074	mg/L			07/31/20 09:17	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND	H ^c *L	0.50	0.25	mg/L			06/18/20 20:24	5
Sulfate	**3.3**	**J**	5.0	1.5	mg/L			06/18/20 20:24	5
Chloride	**7.4**	**^c**	2.0	1.0	mg/L			06/18/20 20:24	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**42**		0.20	0.096	mg/L		06/22/20 06:35	06/22/20 21:39	1
Magnesium	**32**		0.10	0.040	mg/L		06/22/20 06:35	06/22/20 21:39	1
Potassium	**7.6**		0.50	0.20	mg/L		06/22/20 06:35	06/22/20 21:39	1
Sodium	**40**		1.0	0.24	mg/L		06/22/20 06:35	06/22/20 21:39	1
Iron	**130**		0.20	0.040	mg/L		06/22/20 06:35	06/22/20 21:39	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		07/20/20 15:53	07/21/20 16:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**84**		8.0	8.0	mg/L			06/19/20 01:20	1

Client Sample ID: CD-15-W-25.0-20200616

Lab Sample ID: 410-4783-3

Date Collected: 06/16/20 15:30
Matrix: Water
Date Received: 06/17/20 17:00

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.30	0.10	mg/L			06/23/20 14:05	1
Ammonia-N	**0.83**	**J**	1.1	0.36	mg/L		07/08/20 11:00	07/08/20 12:22	1

Client Sample ID: CD-15-W-40.0-20200617

Lab Sample ID: 410-4783-4

Date Collected: 06/17/20 11:00
Matrix: Water
Date Received: 06/17/20 17:00

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			07/01/20 02:15	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			07/01/20 02:15	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			07/01/20 02:15	1
Benzene	ND		1.0	0.20	ug/L			07/01/20 02:15	1
Ethylbenzene	ND		1.0	0.40	ug/L			07/01/20 02:15	1
Isopropylbenzene	ND		5.0	0.20	ug/L			07/01/20 02:15	1
Methyl tertiary butyl ether	**49**		1.0	0.20	ug/L			07/01/20 02:15	1
Naphthalene	ND		5.0	1.0	ug/L			07/01/20 02:15	1
Toluene	ND		1.0	0.20	ug/L			07/01/20 02:15	1
Xylenes, Total	ND		6.0	1.4	ug/L			07/01/20 02:15	1
2-Methyl-2-propanol	**1200**	**E**	50	12	ug/L			07/01/20 02:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*80 - 120*		*07/01/20 02:15*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*07/01/20 02:15*	*1*
Dibromofluoromethane (Surr)	*147*	*XH*	*80 - 120*		*07/01/20 02:15*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*07/01/20 02:15*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C12 (1C)	**200**		50	14	ug/L			06/23/20 23:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (fid) (1C)	*187*	*XH*	*63 - 135*		*06/23/20 23:47*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		06/22/20 11:01	06/22/20 21:24	1
Ethene (1C)	ND		5.0	1.0	ug/L		06/22/20 11:01	06/22/20 21:24	1
Methane (1C)	**47**		5.0	3.0	ug/L		06/22/20 11:01	06/22/20 21:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*65*		*28 - 140*	*06/22/20 11:01*	*06/22/20 21:24*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	**0.036**		0.028	0.0095	ug/L		06/22/20 22:03	06/27/20 07:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*77*		*46 - 136*	*06/22/20 22:03*	*06/27/20 07:39*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*47*		*46 - 136*	*06/22/20 22:03*	*06/27/20 07:39*	*1*

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-4783-1

Client Sample ID: CD-15-W-40.0-20200617
Date Collected: 06/17/20 11:00
Date Received: 06/17/20 17:00

Lab Sample ID: 410-4783-4
Matrix: Water

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	0.77		0.095	0.035	mg/L		06/23/20 00:47	06/25/20 11:22	1
>C22-C44 (1C)	1.1		0.095	0.035	mg/L		06/23/20 00:47	06/25/20 11:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*77*		*21 - 116*	*06/23/20 00:47*	*06/25/20 11:22*	*1*
o- terphenyl (Surr) (1C)	*81*		*51 - 126*	*06/23/20 00:47*	*06/25/20 11:22*	*1*

Method: Total TPH - Total TPH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Reported TPH	1.9		0.20	0.074	mg/L			07/31/20 09:17	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND	^c *L	0.50	0.25	mg/L			06/18/20 20:58	5
Sulfate	5.5		5.0	1.5	mg/L			06/18/20 20:58	5
Chloride	9.9	^c	2.0	1.0	mg/L			06/18/20 20:58	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	41		0.20	0.096	mg/L		06/22/20 06:35	06/22/20 21:33	1
Magnesium	21		0.10	0.040	mg/L		06/22/20 06:35	06/22/20 21:33	1
Potassium	5.0		0.50	0.20	mg/L		06/22/20 06:35	06/22/20 21:33	1
Sodium	99		1.0	0.24	mg/L		06/22/20 06:35	06/22/20 21:33	1
Iron	30		0.20	0.040	mg/L		06/22/20 06:35	06/22/20 21:33	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		07/20/20 15:53	07/21/20 16:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	130		8.0	8.0	mg/L			06/19/20 01:27	1
Sulfide	ND		0.30	0.10	mg/L			06/23/20 14:30	1
Ammonia-N	0.87	J	1.1	0.36	mg/L		07/08/20 11:00	07/08/20 12:22	1

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-4783-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(54-135)	(50-131)	(50-141)	(52-141)
410-4783-1	CD-15-S-5.0-20200616	103	95	97	100
410-4783-1	CD-15-S-5.0-20200616	100	95	97	99
410-4783-2	CD-15-S-25.0-20200616	100	94	98	100
410-4783-2	CD-15-S-25.0-20200616	100	94	97	100
LCS 410-18026/6	Lab Control Sample	97	97	98	102
LCS 410-18026/8	Lab Control Sample	98	96	96	102
LCSD 410-18026/7	Lab Control Sample Dup	99	97	97	101
LCSD 410-18026/9	Lab Control Sample Dup	98	97	96	102
MB 410-18026/11	Method Blank	98	95	97	101

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-4783-3	CD-15-W-25.0-20200616	87	96	100	99
410-4783-4	CD-15-W-40.0-20200617	97	96	147 XH	97
LCS 410-18232/6	Lab Control Sample	86	98	97	98
MB 410-18232/5	Method Blank	87	93	98	98

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		TPHd14	NBZ	FBP
Lab Sample ID	Client Sample ID	(35-135)	(23-115)	(34-117)
410-4783-1	CD-15-S-5.0-20200616	70	61	65
410-4783-2	CD-15-S-25.0-20200616	61	55	63
LCS 410-15255/2-A	Lab Control Sample	87	62	74

Surrogate Legend

TPHd14 = p-Terphenyl-d14 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
FBP = 2-Fluorobiphenyl (Surr)

Surrogate Summary

Client: Stantec Consulting Corp. Job ID: 410-4783-1
Project/Site: PHL Penrose Drilling Sampling

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	TFT-F1 (63-135)
410-4783-3	CD-15-W-25.0-20200616	147 XH
410-4783-4	CD-15-W-40.0-20200617	187 XH
LCS 410-15930/5	Lab Control Sample	85
LCSD 410-15930/6	Lab Control Sample Dup	79
MB 410-15930/4	Method Blank	85

Surrogate Legend

TFT-F = a,a,a-Trifluorotoluene (fid)

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	Propene1 (28-140)
410-4783-3	CD-15-W-25.0-20200616	82
410-4783-4	CD-15-W-40.0-20200617	65
LCS 410-15345/2-A	Lab Control Sample	93
LCS 410-18095/2-A	Lab Control Sample	99
LCSD 410-15345/3-A	Lab Control Sample Dup	94
LCSD 410-18095/3-A	Lab Control Sample Dup	102
MB 410-15345/1-A	Method Blank	94
MB 410-18095/1-A	Method Blank	100

Surrogate Legend

Propene = Propene

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1122TCA1 (46-136)	1122TCA2 (46-136)
410-4783-3	CD-15-W-25.0-20200616	50	45 XL
410-4783-4	CD-15-W-40.0-20200617	77	47
LCS 410-15541/2-A	Lab Control Sample	45 XL	43 XL
LCSD 410-15541/3-A	Lab Control Sample Dup	46	46
MB 410-15541/1-A	Method Blank	42 XL	43 XL

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	CBNZ1 (54-137)	OTP1 (42-143)
410-4783-1	CD-15-S-5.0-20200616	6 XL	16 XL
410-4783-2	CD-15-S-25.0-20200616	12 XL	34 XL
LCS 410-15421/2-A	Lab Control Sample	75	105
MB 410-15421/1-A	Method Blank	78	99

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-4783-1

Surrogate Legend

CBNZ = Chlorobenzene (Surr)
OTP = o- terphenyl (Surr)

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	CBNZ1 (21-116)	OTP1 (51-126)
410-4783-3	CD-15-W-25.0-20200616	71	88
410-4783-4	CD-15-W-40.0-20200617	77	81
LCS 410-15558/2-A	Lab Control Sample	57	84
LCSD 410-15558/3-A	Lab Control Sample Dup	74	94
MB 410-15558/1-A	Method Blank	69	81

Surrogate Legend

CBNZ = Chlorobenzene (Surr)
OTP = o- terphenyl (Surr)

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-4783-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-18026/11
Matrix: Solid
Analysis Batch: 18026

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		5.0	0.40	ug/Kg			06/30/20 13:42	1
1,3,5-Trimethylbenzene	ND		5.0	0.50	ug/Kg			06/30/20 13:42	1
Toluene	ND		5.0	0.60	ug/Kg			06/30/20 13:42	1
Methyl tertiary butyl ether	ND		5.0	0.50	ug/Kg			06/30/20 13:42	1
Benzene	ND		5.0	0.50	ug/Kg			06/30/20 13:42	1
Naphthalene	ND		5.0	2.0	ug/Kg			06/30/20 13:42	1
1,2,4-Trimethylbenzene	ND		5.0	0.50	ug/Kg			06/30/20 13:42	1
Isopropylbenzene	ND		5.0	0.40	ug/Kg			06/30/20 13:42	1
1,2-Dibromoethane	ND		5.0	0.40	ug/Kg			06/30/20 13:42	1
1,2-Dichloroethane	ND		5.0	0.60	ug/Kg			06/30/20 13:42	1
C4-C12-TPH-GRO	ND		110	44	ug/Kg			06/30/20 13:42	1
Xylenes, Total	ND		10	1.4	ug/Kg			06/30/20 13:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*54 - 135*		*06/30/20 13:42*	*1*
4-Bromofluorobenzene (Surr)	*95*		*50 - 131*		*06/30/20 13:42*	*1*
Dibromofluoromethane (Surr)	*97*		*50 - 141*		*06/30/20 13:42*	*1*
Toluene-d8 (Surr)	*101*		*52 - 141*		*06/30/20 13:42*	*1*

Lab Sample ID: LCS 410-18026/6
Matrix: Solid
Analysis Batch: 18026

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	20.0	17.2		ug/Kg		86	78 - 120
1,3,5-Trimethylbenzene	20.0	17.7		ug/Kg		88	73 - 120
Toluene	20.0	17.5		ug/Kg		88	80 - 120
Methyl tertiary butyl ether	20.0	15.9		ug/Kg		80	72 - 120
Benzene	20.0	17.2		ug/Kg		86	80 - 120
Naphthalene	20.0	14.8		ug/Kg		74	48 - 130
1,2,4-Trimethylbenzene	20.0	17.6		ug/Kg		88	73 - 120
Isopropylbenzene	20.0	17.6		ug/Kg		88	77 - 120
1,2-Dibromoethane	20.0	16.6		ug/Kg		83	76 - 120
1,2-Dichloroethane	20.0	16.9		ug/Kg		84	71 - 128
Xylenes, Total	60.0	53.3		ug/Kg		89	75 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*54 - 135*
4-Bromofluorobenzene (Surr)	*97*		*50 - 131*
Dibromofluoromethane (Surr)	*98*		*50 - 141*
Toluene-d8 (Surr)	*102*		*52 - 141*

Lab Sample ID: LCS 410-18026/8
Matrix: Solid
Analysis Batch: 18026

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C4-C12-TPH-GRO	1000	989		ug/Kg		99	75 - 120

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		54 - 135
4-Bromofluorobenzene (Surr)	96		50 - 131
Dibromofluoromethane (Surr)	96		50 - 141
Toluene-d8 (Surr)	102		52 - 141

Lab Sample ID: LCSD 410-18026/7
Matrix: Solid
Analysis Batch: 18026

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene			20.0	18.2		ug/Kg		91	78 - 120	6	30
1,3,5-Trimethylbenzene			20.0	18.9		ug/Kg		95	73 - 120	7	30
Toluene			20.0	18.7		ug/Kg		94	80 - 120	7	30
Methyl tertiary butyl ether			20.0	16.6		ug/Kg		83	72 - 120	4	30
Benzene			20.0	18.6		ug/Kg		93	80 - 120	8	30
Naphthalene			20.0	16.3		ug/Kg		81	48 - 130	10	30
1,2,4-Trimethylbenzene			20.0	19.0		ug/Kg		95	73 - 120	7	30
Isopropylbenzene			20.0	18.9		ug/Kg		94	77 - 120	7	30
1,2-Dibromoethane			20.0	17.9		ug/Kg		89	76 - 120	7	30
1,2-Dichloroethane			20.0	18.4		ug/Kg		92	71 - 128	9	30
Xylenes, Total			60.0	57.0		ug/Kg		95	75 - 120	7	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		54 - 135
4-Bromofluorobenzene (Surr)	97		50 - 131
Dibromofluoromethane (Surr)	97		50 - 141
Toluene-d8 (Surr)	101		52 - 141

Lab Sample ID: LCSD 410-18026/9
Matrix: Solid
Analysis Batch: 18026

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C4-C12-TPH-GRO			1000	995		ug/Kg		99	75 - 120	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		54 - 135
4-Bromofluorobenzene (Surr)	97		50 - 131
Dibromofluoromethane (Surr)	96		50 - 141
Toluene-d8 (Surr)	102		52 - 141

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-18232/5
Matrix: Water
Analysis Batch: 18232

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			06/30/20 18:50	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			06/30/20 18:50	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			06/30/20 18:50	1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-18232/5
Matrix: Water
Analysis Batch: 18232

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.20	ug/L			06/30/20 18:50	1
Ethylbenzene	ND		1.0	0.40	ug/L			06/30/20 18:50	1
Isopropylbenzene	ND		5.0	0.20	ug/L			06/30/20 18:50	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			06/30/20 18:50	1
Naphthalene	ND		5.0	1.0	ug/L			06/30/20 18:50	1
Toluene	ND		1.0	0.20	ug/L			06/30/20 18:50	1
Xylenes, Total	ND		6.0	1.4	ug/L			06/30/20 18:50	1
2-Methyl-2-propanol	ND		50	12	ug/L			06/30/20 18:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*80 - 120*		*06/30/20 18:50*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*06/30/20 18:50*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*06/30/20 18:50*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*06/30/20 18:50*	*1*

Lab Sample ID: LCS 410-18232/6
Matrix: Water
Analysis Batch: 18232

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	20.0	17.6		ug/L		88	75 - 120
1,2-Dichloroethane	20.0	17.9		ug/L		89	73 - 124
1,3,5-Trimethylbenzene	20.0	17.3		ug/L		87	75 - 120
Benzene	20.0	20.7		ug/L		103	80 - 120
Ethylbenzene	20.0	19.4		ug/L		97	80 - 120
Isopropylbenzene	20.0	18.3		ug/L		92	80 - 120
Methyl tertiary butyl ether	20.0	19.0		ug/L		95	69 - 122
Naphthalene	20.0	15.9		ug/L		80	53 - 124
Toluene	20.0	20.4		ug/L		102	80 - 120
Xylenes, Total	60.0	57.7		ug/L		96	80 - 120
2-Methyl-2-propanol	200	158		ug/L		79	60 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*86*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*97*		*80 - 120*
Toluene-d8 (Surr)	*98*		*80 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: LCS 410-15255/2-A
Matrix: Solid
Analysis Batch: 15611

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15255

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	1670	1370		ug/Kg		82	67 - 120
Benzo[a]anthracene	1670	1260		ug/Kg		76	68 - 120
Benzo[a]pyrene	1670	1500		ug/Kg		90	68 - 119

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-15255/2-A
Matrix: Solid
Analysis Batch: 15611

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15255

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[b]fluoranthene	1670	1540		ug/Kg		92	67 - 125
Benzo[g,h,i]perylene	1670	1540		ug/Kg		92	68 - 125
Chrysene	1670	1200		ug/Kg		72	66 - 111
Fluorene	1670	1320		ug/Kg		79	62 - 110
Naphthalene	1680	1120		ug/Kg		67	49 - 104
Phenanthrene	1670	1360		ug/Kg		82	67 - 116
Pyrene	1680	1270		ug/Kg		75	67 - 109

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
p-Terphenyl-d14 (Surr)	*87*		*35 - 135*
Nitrobenzene-d5 (Surr)	*62*		*23 - 115*
2-Fluorobiphenyl (Surr)	*74*		*34 - 117*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Lab Sample ID: MB 410-15930/4
Matrix: Water
Analysis Batch: 15930

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C12 (1C)	ND		50	14	ug/L			06/23/20 21:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (fid) (1C)	*85*		*63 - 135*		*06/23/20 21:57*	*1*

Lab Sample ID: LCS 410-15930/5
Matrix: Water
Analysis Batch: 15930

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C5-C12 (1C)	1100	1120		ug/L		102	66 - 128

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene (fid) (1C)	*85*		*63 - 135*

Lab Sample ID: LCSD 410-15930/6
Matrix: Water
Analysis Batch: 15930

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C5-C12 (1C)	1100	1140		ug/L		104	66 - 128	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene (fid) (1C)	*79*		*63 - 135*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-15345/1-A
Matrix: Water
Analysis Batch: 15291

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15345

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		06/22/20 11:01	06/22/20 19:15	1
Ethene (1C)	ND		5.0	1.0	ug/L		06/22/20 11:01	06/22/20 19:15	1
Methane (1C)	ND		5.0	3.0	ug/L		06/22/20 11:01	06/22/20 19:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*94*		*28 - 140*	*06/22/20 11:01*	*06/22/20 19:15*	*1*

Lab Sample ID: LCS 410-15345/2-A
Matrix: Water
Analysis Batch: 15291

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15345

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethane (1C)	59.4	57.5		ug/L		97	85 - 115
Ethene (1C)	60.4	59.4		ug/L		98	83 - 115
Methane (1C)	59.4	61.1		ug/L		103	85 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*93*		*28 - 140*

Lab Sample ID: LCSD 410-15345/3-A
Matrix: Water
Analysis Batch: 15291

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 15345

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)	59.4	57.3		ug/L		96	85 - 115	0	20
Ethene (1C)	60.4	59.5		ug/L		98	83 - 115	0	20
Methane (1C)	59.4	60.9		ug/L		103	85 - 115	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*94*		*28 - 140*

Lab Sample ID: MB 410-18095/1-A
Matrix: Water
Analysis Batch: 18013

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18095

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		06/30/20 10:29	06/30/20 17:38	1
Ethene (1C)	ND		5.0	1.0	ug/L		06/30/20 10:29	06/30/20 17:38	1
Methane (1C)	ND		5.0	3.0	ug/L		06/30/20 10:29	06/30/20 17:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*100*		*28 - 140*	*06/30/20 10:29*	*06/30/20 17:38*	*1*

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCS 410-18095/2-A
Matrix: Water
Analysis Batch: 18013

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18095

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	60.0		ug/L		101	85 - 115		
Ethene (1C)			60.4	62.0		ug/L		103	83 - 115		
Methane (1C)			59.4	62.4		ug/L		105	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*99*		*28 - 140*

Lab Sample ID: LCSD 410-18095/3-A
Matrix: Water
Analysis Batch: 18013

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 18095

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	60.2		ug/L		101	85 - 115	0	20
Ethene (1C)			60.4	62.1		ug/L		103	83 - 115	0	20
Methane (1C)			59.4	62.4		ug/L		105	85 - 115	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*102*		*28 - 140*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-15541/1-A
Matrix: Water
Analysis Batch: 17189

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15541

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		06/22/20 22:03	06/26/20 22:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*42*	*XL*	*46 - 136*	*06/22/20 22:03*	*06/26/20 22:32*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*43*	*XL*	*46 - 136*	*06/22/20 22:03*	*06/26/20 22:32*	*1*

Lab Sample ID: LCS 410-15541/2-A
Matrix: Water
Analysis Batch: 17189

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15541

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.153		ug/L		119	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*45*	*XL*	*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*43*	*XL*	*46 - 136*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: LCSD 410-15541/3-A
Matrix: Water
Analysis Batch: 17189

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 15541

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.154		ug/L		120	60 - 140	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*46*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*46*		*46 - 136*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 410-15421/1-A
Matrix: Solid
Analysis Batch: 17081

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15421

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		12	5.0	mg/Kg		06/22/20 16:16	06/25/20 13:59	1
>C22-C44 (1C)	ND		12	5.0	mg/Kg		06/22/20 16:16	06/25/20 13:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*78*		*54 - 137*	*06/22/20 16:16*	*06/25/20 13:59*	*1*
o- terphenyl (Surr) (1C)	*99*		*42 - 143*	*06/22/20 16:16*	*06/25/20 13:59*	*1*

Lab Sample ID: LCS 410-15421/2-A
Matrix: Solid
Analysis Batch: 17081

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15421

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
DRO (C10-C28) (1C)			133	105		mg/Kg		78	76 - 117		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Chlorobenzene (Surr) (1C)	*75*		*54 - 137*
o- terphenyl (Surr) (1C)	*105*		*42 - 143*

Lab Sample ID: MB 410-15558/1-A
Matrix: Water
Analysis Batch: 17081

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15558

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		0.10	0.037	mg/L		06/23/20 00:47	06/25/20 09:57	1
>C22-C44 (1C)	ND		0.10	0.037	mg/L		06/23/20 00:47	06/25/20 09:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*69*		*21 - 116*	*06/23/20 00:47*	*06/25/20 09:57*	*1*
o- terphenyl (Surr) (1C)	*81*		*51 - 126*	*06/23/20 00:47*	*06/25/20 09:57*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: LCS 410-15558/2-A
Matrix: Water
Analysis Batch: 17081

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15558

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
DRO (C10-C28) (1C)			0.800	0.488		mg/L		61	48 - 116		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Chlorobenzene (Surr) (1C)	*57*		*21 - 116*
o- terphenyl (Surr) (1C)	*84*		*51 - 126*

Lab Sample ID: LCSD 410-15558/3-A
Matrix: Water
Analysis Batch: 17081

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 15558

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (C10-C28) (1C)			0.800	0.552		mg/L		69	48 - 116	12	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Chlorobenzene (Surr) (1C)	*74*		*21 - 116*
o- terphenyl (Surr) (1C)	*94*		*51 - 126*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 410-14802/4
Matrix: Water
Analysis Batch: 14802

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1.0	0.30	mg/L			06/18/20 08:10	1
Chloride	ND		0.40	0.20	mg/L			06/18/20 08:10	1

Lab Sample ID: LCS 410-14802/3
Matrix: Water
Analysis Batch: 14802

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			7.50	7.33		mg/L		98	90 - 110		
Chloride			3.00	2.69		mg/L		90	90 - 110		

Lab Sample ID: MB 410-15794/4
Matrix: Water
Analysis Batch: 15794

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND		0.10	0.050	mg/L			06/18/20 08:10	1

Lab Sample ID: MB 410-15795/4
Matrix: Water
Analysis Batch: 15795

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1.0	0.30	mg/L			06/18/20 08:10	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 410-15795/4
Matrix: Water
Analysis Batch: 15795

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.40	0.20	mg/L			06/18/20 08:10	1

Lab Sample ID: LCS 410-15795/3
Matrix: Water
Analysis Batch: 15795

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	7.50	7.33		mg/L		98	90 - 110
Chloride	3.00	2.69		mg/L		90	90 - 110

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-16101/1-A
Matrix: Solid
Analysis Batch: 16521

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 16101

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5	0.58	mg/Kg		06/24/20 07:09	06/24/20 22:50	1

Lab Sample ID: LCS 410-16101/2-A
Matrix: Solid
Analysis Batch: 16521

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 16101

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	2.75	2.78		mg/Kg		101	80 - 120

Lab Sample ID: MB 410-15193/1-A
Matrix: Water
Analysis Batch: 15542

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 15193

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.20	0.096	mg/L		06/22/20 06:35	06/22/20 20:05	1
Magnesium	ND		0.10	0.040	mg/L		06/22/20 06:35	06/22/20 20:05	1
Potassium	ND		0.50	0.20	mg/L		06/22/20 06:35	06/22/20 20:05	1
Sodium	ND		1.0	0.24	mg/L		06/22/20 06:35	06/22/20 20:05	1
Iron	ND		0.20	0.040	mg/L		06/22/20 06:35	06/22/20 20:05	1

Lab Sample ID: LCS 410-15193/2-A
Matrix: Water
Analysis Batch: 15542

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 15193

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	0.400	0.425		mg/L		106	80 - 120
Magnesium	0.200	0.204		mg/L		102	80 - 120
Potassium	5.60	5.60		mg/L		100	80 - 120
Sodium	2.00	2.07		mg/L		104	80 - 120
Iron	0.402	0.437		mg/L		109	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 410-24385/1-A
Matrix: Water
Analysis Batch: 25016

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24385

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		07/20/20 15:53	07/21/20 16:31	1

Lab Sample ID: LCS 410-24385/2-A
Matrix: Water
Analysis Batch: 25016

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24385

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	4.92	5.24		ug/L		106	90 - 110

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 410-14870/49
Matrix: Water
Analysis Batch: 14870

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8.0	8.0	mg/L			06/19/20 00:21	1

Lab Sample ID: LCS 410-14870/50
Matrix: Water
Analysis Batch: 14870

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	189	170		mg/L		90	82 - 106

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 410-15827/1
Matrix: Water
Analysis Batch: 15827

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.30	0.10	mg/L			06/23/20 14:05	1

Lab Sample ID: LCS 410-15827/13
Matrix: Water
Analysis Batch: 15827

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	1.00	1.02		mg/L		102	90 - 110

Method: SM4500 NH3 - Ammonia

Lab Sample ID: MB 410-20413/1-A
Matrix: Water
Analysis Batch: 20430

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20413

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia-N	ND		0.75	0.25	mg/L		07/08/20 11:00	07/08/20 12:22	1

Method: SM4500 NH3 - Ammonia (Continued)

Lab Sample ID: LCS 410-20413/2-A
Matrix: Water
Analysis Batch: 20430

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20413

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia-N			500	496		mg/L		99	93 - 100		

Lab Sample ID: LCSD 410-20413/3-A
Matrix: Water
Analysis Batch: 20430

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20413

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia-N			500	502		mg/L		100	93 - 100	1	5

GC/MS VOA

Prep Batch: 14416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4783-1	CD-15-S-5.0-20200616	Total/NA	Solid	5035	
410-4783-1	CD-15-S-5.0-20200616	Total/NA	Solid	5035	
410-4783-2	CD-15-S-25.0-20200616	Total/NA	Solid	5035	
410-4783-2	CD-15-S-25.0-20200616	Total/NA	Solid	5035	

Analysis Batch: 18026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4783-1	CD-15-S-5.0-20200616	Total/NA	Solid	8260C	14416
410-4783-1	CD-15-S-5.0-20200616	Total/NA	Solid	8260C	14416
410-4783-2	CD-15-S-25.0-20200616	Total/NA	Solid	8260C	14416
410-4783-2	CD-15-S-25.0-20200616	Total/NA	Solid	8260C	14416
MB 410-18026/11	Method Blank	Total/NA	Solid	8260C	
LCS 410-18026/6	Lab Control Sample	Total/NA	Solid	8260C	
LCS 410-18026/8	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 410-18026/7	Lab Control Sample Dup	Total/NA	Solid	8260C	
LCSD 410-18026/9	Lab Control Sample Dup	Total/NA	Solid	8260C	

Analysis Batch: 18232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4783-3	CD-15-W-25.0-20200616	Total/NA	Water	8260C/UST	
410-4783-4	CD-15-W-40.0-20200617	Total/NA	Water	8260C/UST	
MB 410-18232/5	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-18232/6	Lab Control Sample	Total/NA	Water	8260C/UST	

GC/MS Semi VOA

Prep Batch: 15255

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4783-1	CD-15-S-5.0-20200616	Total/NA	Solid	3546	
410-4783-2	CD-15-S-25.0-20200616	Total/NA	Solid	3546	
LCS 410-15255/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 15611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4783-1	CD-15-S-5.0-20200616	Total/NA	Solid	8270D	15255
410-4783-2	CD-15-S-25.0-20200616	Total/NA	Solid	8270D	15255
LCS 410-15255/2-A	Lab Control Sample	Total/NA	Solid	8270D	15255

GC VOA

Analysis Batch: 15291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4783-4	CD-15-W-40.0-20200617	Total/NA	Water	RSK-175	15345
MB 410-15345/1-A	Method Blank	Total/NA	Water	RSK-175	15345
LCS 410-15345/2-A	Lab Control Sample	Total/NA	Water	RSK-175	15345
LCSD 410-15345/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	15345

Prep Batch: 15345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4783-4	CD-15-W-40.0-20200617	Total/NA	Water	RSK-175	
MB 410-15345/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-15345/2-A	Lab Control Sample	Total/NA	Water	RSK-175	

GC VOA (Continued)

Prep Batch: 15345 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 410-15345/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 15930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4783-3	CD-15-W-25.0-20200616	Total/NA	Water	8015C	
410-4783-4	CD-15-W-40.0-20200617	Total/NA	Water	8015C	
MB 410-15930/4	Method Blank	Total/NA	Water	8015C	
LCS 410-15930/5	Lab Control Sample	Total/NA	Water	8015C	
LCSD 410-15930/6	Lab Control Sample Dup	Total/NA	Water	8015C	

Analysis Batch: 18013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4783-3	CD-15-W-25.0-20200616	Total/NA	Water	RSK-175	18095
MB 410-18095/1-A	Method Blank	Total/NA	Water	RSK-175	18095
LCS 410-18095/2-A	Lab Control Sample	Total/NA	Water	RSK-175	18095
LCSD 410-18095/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	18095

Prep Batch: 18095

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4783-3	CD-15-W-25.0-20200616	Total/NA	Water	RSK-175	
MB 410-18095/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-18095/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-18095/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

GC Semi VOA

Prep Batch: 15421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4783-1	CD-15-S-5.0-20200616	Total/NA	Solid	3546	
410-4783-2	CD-15-S-25.0-20200616	Total/NA	Solid	3546	
MB 410-15421/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-15421/2-A	Lab Control Sample	Total/NA	Solid	3546	

Prep Batch: 15541

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4783-3	CD-15-W-25.0-20200616	Total/NA	Water	8011	
410-4783-4	CD-15-W-40.0-20200617	Total/NA	Water	8011	
MB 410-15541/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-15541/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-15541/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Prep Batch: 15558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4783-3	CD-15-W-25.0-20200616	Total/NA	Water	3510C	
410-4783-4	CD-15-W-40.0-20200617	Total/NA	Water	3510C	
MB 410-15558/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-15558/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-15558/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

GC Semi VOA

Analysis Batch: 17081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4783-1	CD-15-S-5.0-20200616	Total/NA	Solid	8015C	15421
410-4783-2	CD-15-S-25.0-20200616	Total/NA	Solid	8015C	15421
410-4783-3	CD-15-W-25.0-20200616	Total/NA	Water	8015C	15558
410-4783-4	CD-15-W-40.0-20200617	Total/NA	Water	8015C	15558
MB 410-15421/1-A	Method Blank	Total/NA	Solid	8015C	15421
MB 410-15558/1-A	Method Blank	Total/NA	Water	8015C	15558
LCS 410-15421/2-A	Lab Control Sample	Total/NA	Solid	8015C	15421
LCS 410-15558/2-A	Lab Control Sample	Total/NA	Water	8015C	15558
LCSD 410-15558/3-A	Lab Control Sample Dup	Total/NA	Water	8015C	15558

Analysis Batch: 17189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4783-3	CD-15-W-25.0-20200616	Total/NA	Water	8011	15541
410-4783-4	CD-15-W-40.0-20200617	Total/NA	Water	8011	15541
MB 410-15541/1-A	Method Blank	Total/NA	Water	8011	15541
LCS 410-15541/2-A	Lab Control Sample	Total/NA	Water	8011	15541
LCSD 410-15541/3-A	Lab Control Sample Dup	Total/NA	Water	8011	15541

Analysis Batch: 28450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4783-1	CD-15-S-5.0-20200616	Total/NA	Solid	Total TPH	
410-4783-2	CD-15-S-25.0-20200616	Total/NA	Solid	Total TPH	
410-4783-3	CD-15-W-25.0-20200616	Total/NA	Water	Total TPH	
410-4783-4	CD-15-W-40.0-20200617	Total/NA	Water	Total TPH	

HPLC/IC

Analysis Batch: 14802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4783-3	CD-15-W-25.0-20200616	Total/NA	Water	300.0	
410-4783-4	CD-15-W-40.0-20200617	Total/NA	Water	300.0	
MB 410-14802/4	Method Blank	Total/NA	Water	300.0	
LCS 410-14802/3	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 15794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4783-3	CD-15-W-25.0-20200616	Total/NA	Water	300.0	
410-4783-4	CD-15-W-40.0-20200617	Total/NA	Water	300.0	
MB 410-15794/4	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 15795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4783-3	CD-15-W-25.0-20200616	Total/NA	Water	300.0	
410-4783-4	CD-15-W-40.0-20200617	Total/NA	Water	300.0	
MB 410-15795/4	Method Blank	Total/NA	Water	300.0	
LCS 410-15795/3	Lab Control Sample	Total/NA	Water	300.0	

Metals

Prep Batch: 15193

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4783-3	CD-15-W-25.0-20200616	Total Recoverable	Water	3005A	

Metals (Continued)

Prep Batch: 15193 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4783-4	CD-15-W-40.0-20200617	Total Recoverable	Water	3005A	
MB 410-15193/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-15193/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 15542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4783-3	CD-15-W-25.0-20200616	Total Recoverable	Water	6010C	15193
410-4783-4	CD-15-W-40.0-20200617	Total Recoverable	Water	6010C	15193
MB 410-15193/1-A	Method Blank	Total Recoverable	Water	6010C	15193
LCS 410-15193/2-A	Lab Control Sample	Total Recoverable	Water	6010C	15193

Prep Batch: 16101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4783-1	CD-15-S-5.0-20200616	Total/NA	Solid	3050B	
410-4783-2	CD-15-S-25.0-20200616	Total/NA	Solid	3050B	
MB 410-16101/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 410-16101/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 16521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4783-1	CD-15-S-5.0-20200616	Total/NA	Solid	6010C	16101
410-4783-2	CD-15-S-25.0-20200616	Total/NA	Solid	6010C	16101
MB 410-16101/1-A	Method Blank	Total/NA	Solid	6010C	16101
LCS 410-16101/2-A	Lab Control Sample	Total/NA	Solid	6010C	16101

Filtration Batch: 17388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4783-3	CD-15-W-25.0-20200616	Dissolved	Water	Filtration	
410-4783-4	CD-15-W-40.0-20200617	Dissolved	Water	Filtration	

Prep Batch: 24385

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4783-3	CD-15-W-25.0-20200616	Dissolved	Water	Non-Digest Prep	17388
410-4783-4	CD-15-W-40.0-20200617	Dissolved	Water	Non-Digest Prep	17388
MB 410-24385/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-24385/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	

Analysis Batch: 25016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4783-3	CD-15-W-25.0-20200616	Dissolved	Water	6020A	24385
410-4783-4	CD-15-W-40.0-20200617	Dissolved	Water	6020A	24385
MB 410-24385/1-A	Method Blank	Total/NA	Water	6020A	24385
LCS 410-24385/2-A	Lab Control Sample	Total/NA	Water	6020A	24385

General Chemistry

Analysis Batch: 14249

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4783-1	CD-15-S-5.0-20200616	Total/NA	Solid	Moisture	
410-4783-2	CD-15-S-25.0-20200616	Total/NA	Solid	Moisture	

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-4783-1

General Chemistry

Analysis Batch: 14870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4783-3	CD-15-W-25.0-20200616	Total/NA	Water	SM 2320B	
410-4783-4	CD-15-W-40.0-20200617	Total/NA	Water	SM 2320B	
MB 410-14870/49	Method Blank	Total/NA	Water	SM 2320B	
LCS 410-14870/50	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 15827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4783-3	CD-15-W-25.0-20200616	Total/NA	Water	SM 4500 S2 D	
410-4783-4	CD-15-W-40.0-20200617	Total/NA	Water	SM 4500 S2 D	
MB 410-15827/1	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 410-15827/13	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	

Prep Batch: 20413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4783-3	CD-15-W-25.0-20200616	Total/NA	Water	SM 4500 NH3 B	
410-4783-4	CD-15-W-40.0-20200617	Total/NA	Water	SM 4500 NH3 B	
MB 410-20413/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 B	
LCS 410-20413/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 B	
LCSD 410-20413/3-A	Lab Control Sample Dup	Total/NA	Water	SM 4500 NH3 B	

Analysis Batch: 20430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4783-3	CD-15-W-25.0-20200616	Total/NA	Water	SM4500 NH3	20413
410-4783-4	CD-15-W-40.0-20200617	Total/NA	Water	SM4500 NH3	20413
MB 410-20413/1-A	Method Blank	Total/NA	Water	SM4500 NH3	20413
LCS 410-20413/2-A	Lab Control Sample	Total/NA	Water	SM4500 NH3	20413
LCSD 410-20413/3-A	Lab Control Sample Dup	Total/NA	Water	SM4500 NH3	20413

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-4783-1

Client Sample ID: CD-15-S-5.0-20200616
Lab Sample ID: 410-4783-1
Date Collected: 06/16/20 11:45
Matrix: Solid
Date Received: 06/17/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	14249	06/18/20 06:48	UVJN	ELLE

Client Sample ID: CD-15-S-5.0-20200616
Lab Sample ID: 410-4783-1
Date Collected: 06/16/20 11:45
Matrix: Solid
Date Received: 06/17/20 17:00
Percent Solids: 83.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14416	06/18/20 10:32	HDS6	ELLE
Total/NA	Analysis	8260C		1	18026	06/30/20 14:47	ULCP	ELLE
Total/NA	Prep	5035			14416	06/18/20 10:32	HDS6	ELLE
Total/NA	Analysis	8260C		1	18026	06/30/20 15:10	ULCP	ELLE
Total/NA	Prep	3546			15255	06/22/20 09:00	JH8Y	ELLE
Total/NA	Analysis	8270D		1	15611	06/23/20 13:05	ULM3	ELLE
Total/NA	Prep	3546			15421	06/22/20 16:16	DN9W	ELLE
Total/NA	Analysis	8015C		1	17081	06/25/20 14:41	TMC	ELLE
Total/NA	Analysis	Total TPH		1	28450	07/31/20 09:17	KP5X	ELLE
Total/NA	Prep	3050B			16101	06/24/20 07:09	UAMX	ELLE
Total/NA	Analysis	6010C		1	16521	06/24/20 23:19	UCIG	ELLE

Client Sample ID: CD-15-S-25.0-20200616
Lab Sample ID: 410-4783-2
Date Collected: 06/16/20 13:40
Matrix: Solid
Date Received: 06/17/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	14249	06/18/20 06:48	UVJN	ELLE

Client Sample ID: CD-15-S-25.0-20200616
Lab Sample ID: 410-4783-2
Date Collected: 06/16/20 13:40
Matrix: Solid
Date Received: 06/17/20 17:00
Percent Solids: 81.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14416	06/18/20 10:32	HDS6	ELLE
Total/NA	Analysis	8260C		1	18026	06/30/20 15:33	ULCP	ELLE
Total/NA	Prep	5035			14416	06/18/20 10:32	HDS6	ELLE
Total/NA	Analysis	8260C		1	18026	06/30/20 15:56	ULCP	ELLE
Total/NA	Prep	3546			15255	06/22/20 09:00	JH8Y	ELLE
Total/NA	Analysis	8270D		1	15611	06/23/20 13:29	ULM3	ELLE
Total/NA	Prep	3546			15421	06/22/20 16:16	DN9W	ELLE
Total/NA	Analysis	8015C		1	17081	06/25/20 15:03	TMC	ELLE
Total/NA	Analysis	Total TPH		1	28450	07/31/20 09:17	KP5X	ELLE
Total/NA	Prep	3050B			16101	06/24/20 07:09	UAMX	ELLE
Total/NA	Analysis	6010C		1	16521	06/24/20 23:28	UCIG	ELLE

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-4783-1

Client Sample ID: CD-15-W-25.0-20200616

Lab Sample ID: 410-4783-3

Date Collected: 06/16/20 15:30

Matrix: Water

Date Received: 06/17/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	18232	06/30/20 23:12	UKAD	ELLE
Total/NA	Analysis	8015C		1	15930	06/23/20 23:20	JJT8	ELLE
Total/NA	Prep	RSK-175			18095	06/30/20 10:29	IYN5	ELLE
Total/NA	Analysis	RSK-175		1	18013	06/30/20 20:09	IYN5	ELLE
Total/NA	Prep	8011			15541	06/22/20 22:03	K2IL	ELLE
Total/NA	Analysis	8011		1	17189	06/27/20 07:22	AC3T	ELLE
Total/NA	Prep	3510C			15558	06/23/20 00:47	UKL2	ELLE
Total/NA	Analysis	8015C		1	17081	06/25/20 11:00	TMC	ELLE
Total/NA	Analysis	Total TPH		1	28450	07/31/20 09:17	KP5X	ELLE
Total/NA	Analysis	300.0		5	14802	06/18/20 20:24	UCLW	ELLE
Total/NA	Analysis	300.0		5	15794	06/18/20 20:24	IGI3	ELLE
Total/NA	Analysis	300.0		5	15795	06/18/20 20:24	IGI3	ELLE
Total Recoverable	Prep	3005A			15193	06/22/20 06:35	UAMX	ELLE
Total Recoverable	Analysis	6010C		1	15542	06/22/20 21:39	UEFS	ELLE
Dissolved	Filtration	Filtration			17388	06/28/20 12:29	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			24385	07/20/20 15:53	UJLA	ELLE
Dissolved	Analysis	6020A		1	25016	07/21/20 16:51	UPJE	ELLE
Total/NA	Analysis	SM 2320B		1	14870	06/19/20 01:20	DI9Q	ELLE
Total/NA	Analysis	SM 4500 S2 D		1	15827	06/23/20 14:05	P8DZ	ELLE
Total/NA	Prep	SM 4500 NH3 B			20413	07/08/20 11:00	UYB0	ELLE
Total/NA	Analysis	SM4500 NH3		1	20430	07/08/20 12:22	UYB0	ELLE

Client Sample ID: CD-15-W-40.0-20200617

Lab Sample ID: 410-4783-4

Date Collected: 06/17/20 11:00

Matrix: Water

Date Received: 06/17/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	18232	07/01/20 02:15	UKAD	ELLE
Total/NA	Analysis	8015C		1	15930	06/23/20 23:47	JJT8	ELLE
Total/NA	Prep	RSK-175			15345	06/22/20 11:01	IYN5	ELLE
Total/NA	Analysis	RSK-175		1	15291	06/22/20 21:24	IYN5	ELLE
Total/NA	Prep	8011			15541	06/22/20 22:03	K2IL	ELLE
Total/NA	Analysis	8011		1	17189	06/27/20 07:39	AC3T	ELLE
Total/NA	Prep	3510C			15558	06/23/20 00:47	UKL2	ELLE
Total/NA	Analysis	8015C		1	17081	06/25/20 11:22	TMC	ELLE
Total/NA	Analysis	Total TPH		1	28450	07/31/20 09:17	KP5X	ELLE
Total/NA	Analysis	300.0		5	14802	06/18/20 20:58	UCLW	ELLE
Total/NA	Analysis	300.0		5	15794	06/18/20 20:58	IGI3	ELLE
Total/NA	Analysis	300.0		5	15795	06/18/20 20:58	IGI3	ELLE
Total Recoverable	Prep	3005A			15193	06/22/20 06:35	UAMX	ELLE
Total Recoverable	Analysis	6010C		1	15542	06/22/20 21:33	UEFS	ELLE

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-4783-1

Client Sample ID: CD-15-W-40.0-20200617

Date Collected: 06/17/20 11:00
Date Received: 06/17/20 17:00

Lab Sample ID: 410-4783-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	Filtration			17388	06/28/20 12:35	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			24385	07/20/20 15:53	UJLA	ELLE
Dissolved	Analysis	6020A		1	25016	07/21/20 16:49	UPJE	ELLE
Total/NA	Analysis	SM 2320B		1	14870	06/19/20 01:27	DI9Q	ELLE
Total/NA	Analysis	SM 4500 S2 D		1	15827	06/23/20 14:30	P8DZ	ELLE
Total/NA	Prep	SM 4500 NH3 B			20413	07/08/20 11:00	UYB0	ELLE
Total/NA	Analysis	SM4500 NH3		1	20430	07/08/20 12:22	UYB0	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp. Job ID: 410-4783-1
Project/Site: PHL Penrose Drilling Sampling

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015C	3510C	Water	>C12-C22 (1C)
8015C	3510C	Water	>C22-C44 (1C)
8015C	3546	Solid	>C12-C22 (1C)
8015C	3546	Solid	>C22-C44 (1C)
Moisture		Solid	Percent Moisture
Total TPH		Solid	Total Reported TPH
Total TPH		Water	Total Reported TPH

Method Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-4783-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
8260C/UST	Volatile Organic Compounds (GC/MS)	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
8015C	Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)	SW846	ELLE
RSK-175	Dissolved Gases (GC)	RSK	ELLE
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	ELLE
Total TPH	Total TPH	None	ELLE
300.0	Anions, Ion Chromatography	MCAWW	ELLE
6010C	Metals (ICP)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
Moisture	Percent Moisture	EPA	ELLE
SM 2320B	Alkalinity	SM	ELLE
SM 4500 S2 D	Sulfide, Total	SM	ELLE
SM4500 NH3	Ammonia	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
3050B	Preparation, Metals	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
3546	Microwave Extraction	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
5035	Closed System Purge and Trap	SW846	ELLE
8011	Microextraction	SW846	ELLE
Filtration	Sample Filtration	None	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE
SM 4500 NH3 B	Distillation, Ammonia	SM	ELLE

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-4783-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-4783-1	CD-15-S-5.0-20200616	Solid	06/16/20 11:45	06/17/20 17:00	
410-4783-2	CD-15-S-25.0-20200616	Solid	06/16/20 13:40	06/17/20 17:00	
410-4783-3	CD-15-W-25.0-20200616	Water	06/16/20 15:30	06/17/20 17:00	
410-4783-4	CD-15-W-40.0-20200617	Water	06/17/20 11:00	06/17/20 17:00	

Environmental Analysis Re[illegible]ustody

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Acct. # _____

410-4783 Chain of Custody

al use only

COC # 607590

Client Information

Client: Evergreen c/o Stantec	Acct. #: 16657
Project Name/#: 213402602 PHL Penrose Drilling Sampling	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 213402602
Sampler: Dane Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Soil ☒ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: _____

Analysis Requested — Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Water	Other	Total # of Containers	Custom TPH w/ Ranges (soil)	TPH-GRO 8260 / moisture (soil)	Metals 6010 (water)	Sulfide (water)	TPH-GRO 8260 (water)	Custom TPH w/ Ranges (water)	Chloride, Nitrate Nitrogen, Sulfate (water)	Volatile Headspace Hydrocarbons (water)	Total Alkalinity to 4.5 (water)	Ammonia Nitrogen (water)	Remarks
CD-15-S-5.0-202006116	6/16/20	1145	X		X			5	X	X									
CD-15-S-25.0-202006116	↓	1340	X		X			5	X	X									
CD-15-W-25.0-202006116	↓	1530	X		X			12			X	X	X	X	X	X	X	X	
CD-15-W-40.0-202006117 (DH)	6/17/20	~~[illegible]~~	X		X			12			X	X	X	X	X	X	X	X	
(DH) ~~[illegible]~~		1100 (DH)																	

For Lab Use Only
FSC: _____
SCR#: 260369

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: andrew.klingbeil@stantec.com

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
Dane	6/17/20	1215	Pierre	6/17/20	12:15
Pierre	6/17/20	1643			
			[signature]	6-17-20	1700

EDD Required? Yes No
If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:
UPS _____ FedEx _____ Other _____

Temperature upon receipt 3.1 - 3.6 °C

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Page 40 of 42 8/20/2020

Environmental Analysis Re[illegible]ustody

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Acct. # _____

410-4783 Chain of Custody

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COC # 607590

Client Information

Client: Evergreen c/o Stantec	Acct. #: 16657
Project Name/#: 213402602 PHL Penrose Drilling Sampling	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 213402602
Sampler: Dane Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Soil ☒ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: _____

Analysis Requested — Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil ☒ Sediment	Water	Other:	Total # of Containers	Custom TPH w/ Ranges (soil)	TPH-GRO 8260 / moisture (soil)	Metals 6010 (water)	Sulfide (water)	TPH-GRO 8260 (water)	Custom TPH w/ Ranges (water)	Chloride, Nitrate Nitrogen, Sulfate (water)	Volatile Headspace Hydrocarbons (water)	Total Alkalinity to 4.5 (water)	Ammonia Nitrogen (water)	Remarks
										O	N	O	H			H		S	
CD-15-S-5.0-202006116	6/16/20	1145	X		X			5	X	X									
CD-15-S-25.0-202006116	↓	1340	X		X			5	X	X									
CD-15-W-25.0-202006116	↓	1530	X		X			12			X	X	X	X	X	X	X	X	
CD-15-W-40.0-202006117 (DH)	6/17/20	~~[illegible]~~	X		X			12			X	X	X	X	X	X	X	X	
(DH) ~~[illegible]~~		1100 (DH)																	

Turnaround Time (TAT) Requested (please circle)

Standard (circled) Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: andrew.klingbeil@stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)

Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13

NYSDEC Category A or B | MA MCP | CT RCP

Relinquished by	Date	Time	Received by	Date	Time
Dane	6/17/20	1215	Pierre	6/17/20	12:15
Pierre	6/17/20	1643			
			[signature]	6-17-20	1700

EDD Required? Yes (circled) No

If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____

Temperature upon receipt 3.1 - 3.6 °C

For Lab Use Only

FSC: _____

SCR#: 260369

Preservation Codes

H=HCl T=Thiosulfate

N=HNO_3 B=NaOH

S=H_2SO_4 P=H_3PO_4

F=Field Filtered O=Other

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WM KAM 7044 0919

Login Sample Receipt Checklist

Client: Stantec Consulting Corp. Job Number: 410-4783-1

Login Number: 4783 **List Source: Eurofins Lancaster Laboratories Env**
List Number: 1
Creator: Mathers, William

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-4913-1
Client Project/Site: PHL Penrose Drilling Sampling
Revision: 1

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Andrew Klingbeil

Authorized for release by:
10/7/2020 11:44:20 AM
Dana Kauffman, Report Production Representative
danakauffman@eurofinsus.com

Designee for

Amek Carter, Project Manager
(717)556-7252
amekcarter@eurofinsus.com

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Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

* QC recoveries that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result.

* Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.

* Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Dana Kauffman
Report Production Representative
10/7/2020 11:44:20 AM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 7
Client Sample Results 8
Surrogate Summary 11
QC Sample Results 14
QC Association Summary 27
Lab Chronicle 32
Certification Summary 34
Method Summary 35
Sample Summary 36
Chain of Custody 37
Receipt Checklists 38

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-4913-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC VOA

Qualifier	Qualifier Description
XH	Surrogate recovery is above control limits

GC Semi VOA

Qualifier	Qualifier Description
*L	LCS and/or LCSD recovery below control limits.
XH	Surrogate recovery is above control limits
XL	Surrogate recovery is below control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-4913-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-4913-1

REVISION

The report being provided is a revision of the original report sent on 8/10/2020. The report (revision 1) is being revised due to Reprint Request: TBA missing from report..

Report revision history

Receipt
The samples were received on 6/18/2020 2:37 PM; the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.1°C

Receipt Exceptions
The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. 16 containers are on the COC but only 12 containers were received for CD-12-W-25.0-202500618.

GC/MS VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gasoline Range Organics
Method 8015D_GRO: Surrogate recovery for the following sample was outside control limits: CD-12-W-25.0-20200618 (410-4913-2). Re-extraction and/or re-analysis was performed and surrogate recovery was outside control limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
Method 8015C_DRO: The laboratory control sample (LCS) for preparation batch 410-15627 and analytical batch 410-17081 recovered outside control limits for the following analytes: DRO (C10-C28). Re-extraction of the sample was not performed since greater than two times the method hold time has been exceeeded. The client was contacted and the data reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8011: Surrogate recovery for the following sample was outside the upper control limit on the secondary column: CD-12-W-25.0-20200618 (410-4913-2). The surrogate met the acceptance criteria on the primary column and this sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals

Job ID: 410-4913-1 (Continued)

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Conti

Method 6010C: The reference method requires samples to be preserved to a pH of <2. The following sample(s) were received with insufficient preservation at a pH of 6: CD-12-W-25.0-20200618 (410-4913-2). The sample(s) were preserved to the appropriate pH in the laboratory.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

Method SM4500_S2_D: The following sample was diluted due to the nature of the sample matrix: CD-12-W-25.0-20200618 (410-4913-2). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-4913-1

Client Sample ID: CD-12-S-25.0-20200617 — Lab Sample ID: 410-4913-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C4-C12-TPH-GRO	120		110	45	ug/Kg	1	☼	8260C	Total/NA
Lead	4.3		1.2	0.48	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: CD-12-W-25.0-20200618 — Lab Sample ID: 410-4913-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	3.7		1.0	0.40	ug/L	1		8260C	Total/NA
1,3,5-Trimethylbenzene	0.53	J	5.0	0.30	ug/L	1		8260C	Total/NA
Toluene	0.81	J	1.0	0.20	ug/L	1		8260C	Total/NA
Naphthalene	1.8	J	5.0	1.0	ug/L	1		8260C	Total/NA
Isopropylbenzene	9.2		5.0	0.20	ug/L	1		8260C	Total/NA
C5-C12 (1C)	580		50	14	ug/L	1		8015D	Total/NA
Methane (1C) - DL	1500		50	30	ug/L	10		RSK-175	Total/NA
Sulfate	8.0		5.0	1.5	mg/L	5		300.0	Total/NA
Chloride	7.3		2.0	1.0	mg/L	5		300.0	Total/NA
Calcium	46		1.0	0.48	mg/L	5		6010C	Total Recoverable
Magnesium	72		0.50	0.20	mg/L	5		6010C	Total Recoverable
Potassium	18		2.5	1.0	mg/L	5		6010C	Total Recoverable
Sodium	12		5.0	1.2	mg/L	5		6010C	Total Recoverable
Iron	1200		1.0	0.20	mg/L	5		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	140		8.0	8.0	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CD-12-S-25.0-20200617

Date Collected: 06/17/20 17:15
Date Received: 06/18/20 14:37

Lab Sample ID: 410-4913-1

Matrix: Solid
Percent Solids: 86.4

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		5.1	0.41	ug/Kg	☼	06/19/20 13:32	06/30/20 16:19	1
1,3,5-Trimethylbenzene	ND		5.1	0.51	ug/Kg	☼	06/19/20 13:32	06/30/20 16:19	1
Toluene	ND		5.1	0.61	ug/Kg	☼	06/19/20 13:32	06/30/20 16:19	1
Methyl tertiary butyl ether	ND		5.1	0.51	ug/Kg	☼	06/19/20 13:32	06/30/20 16:19	1
Benzene	ND		5.1	0.51	ug/Kg	☼	06/19/20 13:32	06/30/20 16:19	1
Naphthalene	ND		5.1	2.0	ug/Kg	☼	06/19/20 13:32	06/30/20 16:19	1
1,2,4-Trimethylbenzene	ND		5.1	0.51	ug/Kg	☼	06/19/20 13:32	06/30/20 16:19	1
Isopropylbenzene	ND		5.1	0.41	ug/Kg	☼	06/19/20 13:32	06/30/20 16:19	1
1,2-Dichloroethane	ND		5.1	0.61	ug/Kg	☼	06/19/20 13:32	06/30/20 16:19	1
Xylenes, Total	ND		10	1.4	ug/Kg	☼	06/19/20 13:32	06/30/20 16:19	1
t-Butyl alcohol	ND		100	15	ug/Kg	☼	06/19/20 13:32	06/30/20 16:19	1
C4-C12-TPH-GRO	**120**		110	45	ug/Kg	☼	06/19/20 13:32	06/30/20 16:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*54 - 135*	*06/19/20 13:32*	*06/30/20 16:19*	*1*
4-Bromofluorobenzene (Surr)	*97*		*50 - 131*	*06/19/20 13:32*	*06/30/20 16:19*	*1*
Dibromofluoromethane (Surr)	*97*		*50 - 141*	*06/19/20 13:32*	*06/30/20 16:19*	*1*
Toluene-d8 (Surr)	*100*		*52 - 141*	*06/19/20 13:32*	*06/30/20 16:19*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		19	3.8	ug/Kg	☼	06/21/20 08:38	06/23/20 11:33	1
Benzo[a]anthracene	ND		19	7.7	ug/Kg	☼	06/21/20 08:38	06/23/20 11:33	1
Benzo[a]pyrene	ND		19	3.8	ug/Kg	☼	06/21/20 08:38	06/23/20 11:33	1
Benzo[b]fluoranthene	ND		19	3.8	ug/Kg	☼	06/21/20 08:38	06/23/20 11:33	1
Benzo[g,h,i]perylene	ND		19	3.8	ug/Kg	☼	06/21/20 08:38	06/23/20 11:33	1
Chrysene	ND		19	3.8	ug/Kg	☼	06/21/20 08:38	06/23/20 11:33	1
Fluorene	ND		19	3.8	ug/Kg	☼	06/21/20 08:38	06/23/20 11:33	1
Naphthalene	ND		19	7.7	ug/Kg	☼	06/21/20 08:38	06/23/20 11:33	1
Phenanthrene	ND		19	3.8	ug/Kg	☼	06/21/20 08:38	06/23/20 11:33	1
Pyrene	ND		19	3.8	ug/Kg	☼	06/21/20 08:38	06/23/20 11:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*75*		*23 - 115*	*06/21/20 08:38*	*06/23/20 11:33*	*1*
2-Fluorobiphenyl (Surr)	*76*		*34 - 117*	*06/21/20 08:38*	*06/23/20 11:33*	*1*
p-Terphenyl-d14 (Surr)	*90*		*35 - 135*	*06/21/20 08:38*	*06/23/20 11:33*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.56	0.22	ug/Kg	☼	07/01/20 13:35	07/01/20 22:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*120*		*60 - 140*	*07/01/20 13:35*	*07/01/20 22:33*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*108*		*60 - 140*	*07/01/20 13:35*	*07/01/20 22:33*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		14	5.7	mg/Kg	☼	06/23/20 09:00	06/25/20 15:45	1
>C22-C44 (1C)	ND		14	5.7	mg/Kg	☼	06/23/20 09:00	06/25/20 15:45	1

Client Sample ID: CD-12-S-25.0-20200617

Lab Sample ID: 410-4913-1

Date Collected: 06/17/20 17:15
Matrix: Solid
Date Received: 06/18/20 14:37
Percent Solids: 86.4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o- terphenyl (Surr) (1C)	*89*		*42 - 143*	*06/23/20 09:00*	*06/25/20 15:45*	*1*
Chlorobenzene (Surr) (1C)	*69*		*54 - 137*	*06/23/20 09:00*	*06/25/20 15:45*	*1*

Method: Total TPH - Total TPH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Reported TPH	ND		14	5.8	mg/Kg	☼		07/31/20 09:17	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**4.3**		1.2	0.48	mg/Kg	☼	06/22/20 04:43	06/24/20 08:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**13.6**		1.0	1.0	%			06/19/20 18:24	1

Client Sample ID: CD-12-W-25.0-20200618

Lab Sample ID: 410-4913-2

Date Collected: 06/18/20 08:50
Matrix: Water
Date Received: 06/18/20 14:37

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**3.7**		1.0	0.40	ug/L			07/02/20 23:16	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			07/02/20 23:16	1
1,3,5-Trimethylbenzene	**0.53**	**J**	5.0	0.30	ug/L			07/02/20 23:16	1
Toluene	**0.81**	**J**	1.0	0.20	ug/L			07/02/20 23:16	1
Xylenes, Total	ND		6.0	1.4	ug/L			07/02/20 23:16	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			07/02/20 23:16	1
Benzene	ND		1.0	0.20	ug/L			07/02/20 23:16	1
Naphthalene	**1.8**	**J**	5.0	1.0	ug/L			07/02/20 23:16	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			07/02/20 23:16	1
Isopropylbenzene	**9.2**		5.0	0.20	ug/L			07/02/20 23:16	1
t-Butyl alcohol	ND		50	12	ug/L			07/02/20 23:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*		*07/02/20 23:16*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*07/02/20 23:16*	*1*
Dibromofluoromethane (Surr)	*100*		*80 - 120*		*07/02/20 23:16*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*07/02/20 23:16*	*1*

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C12 (1C)	**580**		50	14	ug/L			07/02/20 21:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (fid) (1C)	*286*	*XH*	*63 - 135*		*07/02/20 21:52*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		06/22/20 11:01	06/23/20 01:10	1
Ethene (1C)	ND		5.0	1.0	ug/L		06/22/20 11:01	06/23/20 01:10	1

Client Sample ID: CD-12-W-25.0-20200618

Date Collected: 06/18/20 08:50
Date Received: 06/18/20 14:37

Lab Sample ID: 410-4913-2

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*54*		*28 - 140*	*06/22/20 11:01*	*06/23/20 01:10*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**1500**		50	30	ug/L		06/24/20 10:28	06/24/20 14:16	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*86*		*28 - 140*	*06/24/20 10:28*	*06/24/20 14:16*	*10*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0096	ug/L		06/22/20 22:03	06/27/20 07:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*54*		*46 - 136*	*06/22/20 22:03*	*06/27/20 07:56*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*158*	*XH*	*46 - 136*	*06/22/20 22:03*	*06/27/20 07:56*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND		0.50	0.25	mg/L			06/19/20 23:37	5
Sulfate	**8.0**		5.0	1.5	mg/L			06/19/20 23:37	5
Chloride	**7.3**		2.0	1.0	mg/L			06/19/20 23:37	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**46**		1.0	0.48	mg/L		06/22/20 06:56	06/25/20 09:01	5
Magnesium	**72**		0.50	0.20	mg/L		06/22/20 06:56	06/25/20 09:01	5
Potassium	**18**		2.5	1.0	mg/L		06/22/20 06:56	06/25/20 09:01	5
Sodium	**12**		5.0	1.2	mg/L		06/22/20 06:56	06/25/20 09:01	5
Iron	**1200**		1.0	0.20	mg/L		06/22/20 06:56	06/25/20 09:01	5

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.53	0.075	ug/L		07/02/20 13:47	07/08/20 19:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**140**		8.0	8.0	mg/L			06/23/20 02:58	1
Sulfide	ND		30	10	mg/L			06/23/20 10:08	100
Ammonia-N	ND		1.1	0.36	mg/L		06/29/20 09:57	06/29/20 12:36	1

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-4913-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(54-135)	(50-131)	(50-141)	(52-141)
410-4913-1	CD-12-S-25.0-20200617	103	97	97	100
LCS 410-17200/5	Lab Control Sample	99	97	99	102
LCS 410-18026/6	Lab Control Sample	97	97	98	102
LCS 410-18026/8	Lab Control Sample	98	96	96	102
LCSD 410-17200/6	Lab Control Sample Dup	98	97	97	101
LCSD 410-18026/7	Lab Control Sample Dup	99	97	97	101
LCSD 410-18026/9	Lab Control Sample Dup	98	97	96	102
MB 410-17200/8	Method Blank	98	95	97	101
MB 410-18026/11	Method Blank	98	95	97	101

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-4913-2	CD-12-W-25.0-20200618	99	101	100	100
LCS 410-19153/4	Lab Control Sample	99	100	101	100
LCSD 410-19153/5	Lab Control Sample Dup	99	101	101	100
MB 410-19153/7	Method Blank	99	99	100	99

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		NBZ	FBP	TPHd14
Lab Sample ID	Client Sample ID	(23-115)	(34-117)	(35-135)
410-4913-1	CD-12-S-25.0-20200617	75	76	90
LCS 410-15096/2-A	Lab Control Sample	69	75	92
MB 410-15096/1-A	Method Blank	74	76	93

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
FBP = 2-Fluorobiphenyl (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-4913-1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	TFT-F1 (63-135)
410-4913-2	CD-12-W-25.0-20200618	286 XH
LCS 410-19123/5	Lab Control Sample	78
LCSD 410-19123/6	Lab Control Sample Dup	78
MB 410-19123/4	Method Blank	85

Surrogate Legend

TFT-F = a,a,a-Trifluorotoluene (fid)

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	Propene1 (28-140)
410-4913-2	CD-12-W-25.0-20200618	54
410-4913-2 - DL	CD-12-W-25.0-20200618	86
LCS 410-15345/2-A	Lab Control Sample	93
LCS 410-16239/2-A	Lab Control Sample	97
LCSD 410-15345/3-A	Lab Control Sample Dup	94
LCSD 410-16239/3-A	Lab Control Sample Dup	98
MB 410-15345/1-A	Method Blank	94
MB 410-16239/1-A	Method Blank	100

Surrogate Legend

Propene = Propene

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1122TCA1 (60-140)	1122TCA2 (60-140)
410-4913-1	CD-12-S-25.0-20200617	120	108

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1122TCA1 (46-136)	1122TCA2 (46-136)
410-4913-2	CD-12-W-25.0-20200618	54	158 XH
410-4913-2 MS	CD-12-W-25.0-20200618	50	103
LCS 410-15541/2-A	Lab Control Sample	45 XL	43 XL
LCSD 410-15541/3-A	Lab Control Sample Dup	46	46
MB 410-15541/1-A	Method Blank	42 XL	43 XL

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Surrogate Summary

Client: Stantec Consulting Corp. Job ID: 410-4913-1
Project/Site: PHL Penrose Drilling Sampling

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
		OTP1	CBNZ1								
Lab Sample ID	Client Sample ID	(42-143)	(54-137)								
410-4913-1	CD-12-S-25.0-20200617	89	69								
LCS 410-15627/2-A	Lab Control Sample	99	69								
MB 410-15627/1-A	Method Blank	89	68								

Surrogate Legend

OTP = o- terphenyl (Surr)
CBNZ = Chlorobenzene (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-17200/8
Matrix: Solid
Analysis Batch: 17200

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		5.0	0.40	ug/Kg			06/26/20 20:55	1
1,3,5-Trimethylbenzene	ND		5.0	0.50	ug/Kg			06/26/20 20:55	1
Toluene	ND		5.0	0.60	ug/Kg			06/26/20 20:55	1
Methyl tertiary butyl ether	ND		5.0	0.50	ug/Kg			06/26/20 20:55	1
Benzene	ND		5.0	0.50	ug/Kg			06/26/20 20:55	1
Naphthalene	ND		5.0	2.0	ug/Kg			06/26/20 20:55	1
1,2,4-Trimethylbenzene	ND		5.0	0.50	ug/Kg			06/26/20 20:55	1
1,2-Dichloroethane	ND		5.0	0.60	ug/Kg			06/26/20 20:55	1
Isopropylbenzene	ND		5.0	0.40	ug/Kg			06/26/20 20:55	1
Xylenes, Total	ND		10	1.4	ug/Kg			06/26/20 20:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*54 - 135*		*06/26/20 20:55*	*1*
4-Bromofluorobenzene (Surr)	*95*		*50 - 131*		*06/26/20 20:55*	*1*
Dibromofluoromethane (Surr)	*97*		*50 - 141*		*06/26/20 20:55*	*1*
Toluene-d8 (Surr)	*101*		*52 - 141*		*06/26/20 20:55*	*1*

Lab Sample ID: LCS 410-17200/5
Matrix: Solid
Analysis Batch: 17200

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylbenzene			20.0	19.8		ug/Kg		99	78 - 120		
1,3,5-Trimethylbenzene			20.0	20.6		ug/Kg		103	73 - 120		
Toluene			20.0	20.2		ug/Kg		101	80 - 120		
Methyl tertiary butyl ether			20.0	17.6		ug/Kg		88	72 - 120		
Benzene			20.0	19.8		ug/Kg		99	80 - 120		
Naphthalene			20.0	18.0		ug/Kg		90	48 - 130		
1,2,4-Trimethylbenzene			20.0	20.6		ug/Kg		103	73 - 120		
1,2-Dichloroethane			20.0	19.4		ug/Kg		97	71 - 128		
Isopropylbenzene			20.0	20.5		ug/Kg		103	77 - 120		
Xylenes, Total			60.0	62.2		ug/Kg		104	75 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*54 - 135*
4-Bromofluorobenzene (Surr)	*97*		*50 - 131*
Dibromofluoromethane (Surr)	*99*		*50 - 141*
Toluene-d8 (Surr)	*102*		*52 - 141*

Lab Sample ID: LCSD 410-17200/6
Matrix: Solid
Analysis Batch: 17200

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene			20.0	19.5		ug/Kg		97	78 - 120	2	30
1,3,5-Trimethylbenzene			20.0	20.6		ug/Kg		103	73 - 120	0	30
Toluene			20.0	20.1		ug/Kg		101	80 - 120	1	30
Methyl tertiary butyl ether			20.0	17.6		ug/Kg		88	72 - 120	0	30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-17200/6
Matrix: Solid
Analysis Batch: 17200

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			20.0	19.4		ug/Kg		97	80 - 120	2	30
Naphthalene			20.0	17.9		ug/Kg		90	48 - 130	0	30
1,2,4-Trimethylbenzene			20.0	20.7		ug/Kg		103	73 - 120	1	30
1,2-Dichloroethane			20.0	19.0		ug/Kg		95	71 - 128	2	30
Isopropylbenzene			20.0	20.5		ug/Kg		103	77 - 120	0	30
Xylenes, Total			60.0	61.4		ug/Kg		102	75 - 120	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*54 - 135*
4-Bromofluorobenzene (Surr)	*97*		*50 - 131*
Dibromofluoromethane (Surr)	*97*		*50 - 141*
Toluene-d8 (Surr)	*101*		*52 - 141*

Lab Sample ID: MB 410-18026/11
Matrix: Solid
Analysis Batch: 18026

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		5.0	0.40	ug/Kg			06/30/20 13:42	1
1,3,5-Trimethylbenzene	ND		5.0	0.50	ug/Kg			06/30/20 13:42	1
Toluene	ND		5.0	0.60	ug/Kg			06/30/20 13:42	1
Methyl tertiary butyl ether	ND		5.0	0.50	ug/Kg			06/30/20 13:42	1
Benzene	ND		5.0	0.50	ug/Kg			06/30/20 13:42	1
Naphthalene	ND		5.0	2.0	ug/Kg			06/30/20 13:42	1
1,2,4-Trimethylbenzene	ND		5.0	0.50	ug/Kg			06/30/20 13:42	1
1,2-Dichloroethane	ND		5.0	0.60	ug/Kg			06/30/20 13:42	1
Isopropylbenzene	ND		5.0	0.40	ug/Kg			06/30/20 13:42	1
Xylenes, Total	ND		10	1.4	ug/Kg			06/30/20 13:42	1
t-Butyl alcohol	ND		100	15	ug/Kg			06/30/20 13:42	1
C4-C12-TPH-GRO	ND		110	44	ug/Kg			06/30/20 13:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*54 - 135*		*06/30/20 13:42*	*1*
4-Bromofluorobenzene (Surr)	*95*		*50 - 131*		*06/30/20 13:42*	*1*
Dibromofluoromethane (Surr)	*97*		*50 - 141*		*06/30/20 13:42*	*1*
Toluene-d8 (Surr)	*101*		*52 - 141*		*06/30/20 13:42*	*1*

Lab Sample ID: LCS 410-18026/6
Matrix: Solid
Analysis Batch: 18026

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylbenzene			20.0	17.2		ug/Kg		86	78 - 120		
1,3,5-Trimethylbenzene			20.0	17.7		ug/Kg		88	73 - 120		
Toluene			20.0	17.5		ug/Kg		88	80 - 120		
Methyl tertiary butyl ether			20.0	15.9		ug/Kg		80	72 - 120		
Benzene			20.0	17.2		ug/Kg		86	80 - 120		
Naphthalene			20.0	14.8		ug/Kg		74	48 - 130		

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-18026/6
Matrix: Solid
Analysis Batch: 18026

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	20.0	17.6		ug/Kg		88	73 - 120
1,2-Dichloroethane	20.0	16.9		ug/Kg		84	71 - 128
Isopropylbenzene	20.0	17.6		ug/Kg		88	77 - 120
Xylenes, Total	60.0	53.3		ug/Kg		89	75 - 120
t-Butyl alcohol	200	199		ug/Kg		99	74 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*54 - 135*
4-Bromofluorobenzene (Surr)	*97*		*50 - 131*
Dibromofluoromethane (Surr)	*98*		*50 - 141*
Toluene-d8 (Surr)	*102*		*52 - 141*

Lab Sample ID: LCS 410-18026/8
Matrix: Solid
Analysis Batch: 18026

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C4-C12-TPH-GRO	1000	989		ug/Kg		99	75 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*54 - 135*
4-Bromofluorobenzene (Surr)	*96*		*50 - 131*
Dibromofluoromethane (Surr)	*96*		*50 - 141*
Toluene-d8 (Surr)	*102*		*52 - 141*

Lab Sample ID: LCSD 410-18026/7
Matrix: Solid
Analysis Batch: 18026

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	20.0	18.2		ug/Kg		91	78 - 120	6	30
1,3,5-Trimethylbenzene	20.0	18.9		ug/Kg		95	73 - 120	7	30
Toluene	20.0	18.7		ug/Kg		94	80 - 120	7	30
Methyl tertiary butyl ether	20.0	16.6		ug/Kg		83	72 - 120	4	30
Benzene	20.0	18.6		ug/Kg		93	80 - 120	8	30
Naphthalene	20.0	16.3		ug/Kg		81	48 - 130	10	30
1,2,4-Trimethylbenzene	20.0	19.0		ug/Kg		95	73 - 120	7	30
1,2-Dichloroethane	20.0	18.4		ug/Kg		92	71 - 128	9	30
Isopropylbenzene	20.0	18.9		ug/Kg		94	77 - 120	7	30
Xylenes, Total	60.0	57.0		ug/Kg		95	75 - 120	7	30
t-Butyl alcohol	200	202		ug/Kg		101	74 - 121	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*54 - 135*
4-Bromofluorobenzene (Surr)	*97*		*50 - 131*
Dibromofluoromethane (Surr)	*97*		*50 - 141*
Toluene-d8 (Surr)	*101*		*52 - 141*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-18026/9
Matrix: Solid
Analysis Batch: 18026

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C4-C12-TPH-GRO			1000	995		ug/Kg		99	75 - 120	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*54 - 135*
4-Bromofluorobenzene (Surr)	*97*		*50 - 131*
Dibromofluoromethane (Surr)	*96*		*50 - 141*
Toluene-d8 (Surr)	*102*		*52 - 141*

Lab Sample ID: MB 410-19153/7
Matrix: Water
Analysis Batch: 19153

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			07/02/20 22:46	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			07/02/20 22:46	1
Toluene	ND		1.0	0.20	ug/L			07/02/20 22:46	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			07/02/20 22:46	1
Benzene	ND		1.0	0.20	ug/L			07/02/20 22:46	1
Naphthalene	ND		5.0	1.0	ug/L			07/02/20 22:46	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			07/02/20 22:46	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			07/02/20 22:46	1
Isopropylbenzene	ND		5.0	0.20	ug/L			07/02/20 22:46	1
Xylenes, Total	ND		6.0	1.4	ug/L			07/02/20 22:46	1
t-Butyl alcohol	ND		50	12	ug/L			07/02/20 22:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*		*07/02/20 22:46*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*07/02/20 22:46*	*1*
Dibromofluoromethane (Surr)	*100*		*80 - 120*		*07/02/20 22:46*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*07/02/20 22:46*	*1*

Lab Sample ID: LCS 410-19153/4
Matrix: Water
Analysis Batch: 19153

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylbenzene			20.0	20.8		ug/L		104	80 - 120		
1,3,5-Trimethylbenzene			20.0	20.9		ug/L		104	75 - 120		
Toluene			20.0	20.5		ug/L		102	80 - 120		
Methyl tertiary butyl ether			20.0	18.7		ug/L		94	69 - 122		
Benzene			20.0	20.0		ug/L		100	80 - 120		
Naphthalene			20.0	21.2		ug/L		106	53 - 124		
1,2,4-Trimethylbenzene			20.0	20.7		ug/L		103	75 - 120		
1,2-Dichloroethane			20.0	20.1		ug/L		100	73 - 124		
Isopropylbenzene			20.0	21.1		ug/L		105	80 - 120		
Xylenes, Total			60.0	62.1		ug/L		104	80 - 120		
t-Butyl alcohol			200	196		ug/L		98	60 - 130		

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-19153/4
Matrix: Water
Analysis Batch: 19153

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		80 - 120
4-Bromofluorobenzene (Surr)	100		80 - 120
Dibromofluoromethane (Surr)	101		80 - 120
Toluene-d8 (Surr)	100		80 - 120

Lab Sample ID: LCSD 410-19153/5
Matrix: Water
Analysis Batch: 19153

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene			20.0	21.6		ug/L		108	80 - 120	4	30
1,3,5-Trimethylbenzene			20.0	21.9		ug/L		109	75 - 120	5	30
Toluene			20.0	21.6		ug/L		108	80 - 120	5	30
Methyl tertiary butyl ether			20.0	18.9		ug/L		95	69 - 122	1	30
Benzene			20.0	20.6		ug/L		103	80 - 120	3	30
Naphthalene			20.0	21.8		ug/L		109	53 - 124	3	30
1,2,4-Trimethylbenzene			20.0	21.6		ug/L		108	75 - 120	4	30
1,2-Dichloroethane			20.0	21.5		ug/L		108	73 - 124	7	30
Isopropylbenzene			20.0	22.1		ug/L		111	80 - 120	5	30
Xylenes, Total			60.0	64.9		ug/L		108	80 - 120	4	30
t-Butyl alcohol			200	203		ug/L		101	60 - 130	3	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		80 - 120
4-Bromofluorobenzene (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	101		80 - 120
Toluene-d8 (Surr)	100		80 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-15096/1-A
Matrix: Solid
Analysis Batch: 15224

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15096

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		17	3.3	ug/Kg		06/21/20 08:38	06/22/20 09:24	1
Benzo[a]anthracene	ND		17	6.7	ug/Kg		06/21/20 08:38	06/22/20 09:24	1
Benzo[a]pyrene	ND		17	3.3	ug/Kg		06/21/20 08:38	06/22/20 09:24	1
Benzo[b]fluoranthene	ND		17	3.3	ug/Kg		06/21/20 08:38	06/22/20 09:24	1
Benzo[g,h,i]perylene	ND		17	3.3	ug/Kg		06/21/20 08:38	06/22/20 09:24	1
Chrysene	ND		17	3.3	ug/Kg		06/21/20 08:38	06/22/20 09:24	1
Fluorene	ND		17	3.3	ug/Kg		06/21/20 08:38	06/22/20 09:24	1
Naphthalene	ND		17	6.7	ug/Kg		06/21/20 08:38	06/22/20 09:24	1
Phenanthrene	ND		17	3.3	ug/Kg		06/21/20 08:38	06/22/20 09:24	1
Pyrene	ND		17	3.3	ug/Kg		06/21/20 08:38	06/22/20 09:24	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	74		23 - 115	06/21/20 08:38	06/22/20 09:24	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-15096/1-A
Matrix: Solid
Analysis Batch: 15224

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15096

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	76		34 - 117	06/21/20 08:38	06/22/20 09:24	1
p-Terphenyl-d14 (Surr)	93		35 - 135	06/21/20 08:38	06/22/20 09:24	1

Lab Sample ID: LCS 410-15096/2-A
Matrix: Solid
Analysis Batch: 15224

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15096

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	1670	1500		ug/Kg		90	67 - 120
Benzo[a]anthracene	1670	1550		ug/Kg		93	68 - 120
Benzo[a]pyrene	1670	1470		ug/Kg		88	68 - 119
Benzo[b]fluoranthene	1670	1540		ug/Kg		92	67 - 125
Benzo[g,h,i]perylene	1670	1520		ug/Kg		91	68 - 125
Chrysene	1670	1440		ug/Kg		86	66 - 111
Fluorene	1670	1440		ug/Kg		86	62 - 110
Naphthalene	1680	1220		ug/Kg		73	49 - 104
Phenanthrene	1670	1420		ug/Kg		85	67 - 116
Pyrene	1680	1390		ug/Kg		83	67 - 109

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	69		23 - 115
2-Fluorobiphenyl (Surr)	75		34 - 117
p-Terphenyl-d14 (Surr)	92		35 - 135

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 410-19123/4
Matrix: Water
Analysis Batch: 19123

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C12 (1C)	ND		50	14	ug/L			07/02/20 20:35	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene (fid) (1C)	85		63 - 135		07/02/20 20:35	1

Lab Sample ID: LCS 410-19123/5
Matrix: Water
Analysis Batch: 19123

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C5-C12 (1C)	1100	1130		ug/L		103	66 - 128

Surrogate	LCS %Recovery	LCS Qualifier	Limits
a,a,a-Trifluorotoluene (fid) (1C)	78		63 - 135

Method: 8015D - Gasoline Range Organics (GRO) (GC) (Continued)

Lab Sample ID: LCSD 410-19123/6
Matrix: Water
Analysis Batch: 19123

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C5-C12 (1C)			1100	1140		ug/L		104	66 - 128	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene (fid) (1C)	*78*		*63 - 135*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-15345/1-A
Matrix: Water
Analysis Batch: 15291

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15345

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		06/22/20 11:01	06/22/20 19:15	1
Ethene (1C)	ND		5.0	1.0	ug/L		06/22/20 11:01	06/22/20 19:15	1
Methane (1C)	ND		5.0	3.0	ug/L		06/22/20 11:01	06/22/20 19:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*94*		*28 - 140*	*06/22/20 11:01*	*06/22/20 19:15*	*1*

Lab Sample ID: LCS 410-15345/2-A
Matrix: Water
Analysis Batch: 15291

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15345

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethane (1C)			59.4	57.5		ug/L		97	85 - 115
Ethene (1C)			60.4	59.4		ug/L		98	83 - 115
Methane (1C)			59.4	61.1		ug/L		103	85 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*93*		*28 - 140*

Lab Sample ID: LCSD 410-15345/3-A
Matrix: Water
Analysis Batch: 15291

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 15345

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	57.3		ug/L		96	85 - 115	0	20
Ethene (1C)			60.4	59.5		ug/L		98	83 - 115	0	20
Methane (1C)			59.4	60.9		ug/L		103	85 - 115	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*94*		*28 - 140*

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: MB 410-16239/1-A
Matrix: Water
Analysis Batch: 16252

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 16239

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		06/24/20 10:28	06/24/20 12:11	1
Ethene (1C)	ND		5.0	1.0	ug/L		06/24/20 10:28	06/24/20 12:11	1
Methane (1C)	ND		5.0	3.0	ug/L		06/24/20 10:28	06/24/20 12:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*100*		*28 - 140*	*06/24/20 10:28*	*06/24/20 12:11*	*1*

Lab Sample ID: LCS 410-16239/2-A
Matrix: Water
Analysis Batch: 16252

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 16239

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	57.3		ug/L		97	85 - 115		
Ethene (1C)			60.4	59.9		ug/L		99	83 - 115		
Methane (1C)			59.4	60.5		ug/L		102	85 - 115		

Surrogate			*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)			*97*		*28 - 140*

Lab Sample ID: LCSD 410-16239/3-A
Matrix: Water
Analysis Batch: 16252

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 16239

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	57.8		ug/L		97	85 - 115	1	20
Ethene (1C)			60.4	60.0		ug/L		99	83 - 115	0	20
Methane (1C)			59.4	59.6		ug/L		100	85 - 115	1	20

Surrogate			*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)			*98*		*28 - 140*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-15541/1-A
Matrix: Water
Analysis Batch: 17189

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15541

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		06/22/20 22:03	06/26/20 22:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*42*	*XL*	*46 - 136*	*06/22/20 22:03*	*06/26/20 22:32*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*43*	*XL*	*46 - 136*	*06/22/20 22:03*	*06/26/20 22:32*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: LCS 410-15541/2-A
Matrix: Water
Analysis Batch: 17189

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15541

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.153		ug/L		119	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*45*	*XL*	*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*43*	*XL*	*46 - 136*

Lab Sample ID: LCSD 410-15541/3-A
Matrix: Water
Analysis Batch: 17189

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 15541

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.154		ug/L		120	60 - 140	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*46*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*46*		*46 - 136*

Lab Sample ID: 410-4913-2 MS
Matrix: Water
Analysis Batch: 17189

Client Sample ID: CD-12-W-25.0-20200618
Prep Type: Total/NA
Prep Batch: 15541

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)	ND		0.122	0.147		ug/L		120	60 - 140		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*50*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*103*		*46 - 136*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 410-15627/1-A
Matrix: Solid
Analysis Batch: 17081

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15627

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		12	5.0	mg/Kg		06/23/20 09:00	06/25/20 16:07	1
>C22-C44 (1C)	ND		12	5.0	mg/Kg		06/23/20 09:00	06/25/20 16:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o- terphenyl (Surr) (1C)	*89*		*42 - 143*	*06/23/20 09:00*	*06/25/20 16:07*	*1*
Chlorobenzene (Surr) (1C)	*68*		*54 - 137*	*06/23/20 09:00*	*06/25/20 16:07*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: LCS 410-15627/2-A
Matrix: Solid
Analysis Batch: 17081

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15627

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
DRO (C10-C28) (1C)			133	97.5	*L	mg/Kg		73	76 - 117		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o- terphenyl (Surr) (1C)	*99*		*42 - 143*
Chlorobenzene (Surr) (1C)	*69*		*54 - 137*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 410-14837/38
Matrix: Water
Analysis Batch: 14837

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1.0	0.30	mg/L			06/19/20 05:55	1
Chloride	ND		0.40	0.20	mg/L			06/19/20 05:55	1

Lab Sample ID: MB 410-14837/5
Matrix: Water
Analysis Batch: 14837

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1.0	0.30	mg/L			06/18/20 20:14	1
Chloride	ND		0.40	0.20	mg/L			06/18/20 20:14	1

Lab Sample ID: LCS 410-14837/37
Matrix: Water
Analysis Batch: 14837

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			7.50	7.61		mg/L		101	90 - 110		
Chloride			3.00	2.80		mg/L		93	90 - 110		

Lab Sample ID: LCS 410-14837/4
Matrix: Water
Analysis Batch: 14837

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			7.50	7.77		mg/L		104	90 - 110		
Chloride			3.00	2.86		mg/L		95	90 - 110		

Lab Sample ID: MB 410-14864/4
Matrix: Water
Analysis Batch: 14864

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND		0.10	0.050	mg/L			06/19/20 15:58	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 410-14864/3
Matrix: Water
Analysis Batch: 14864

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrogen, Nitrate			0.750	0.683		mg/L		91	90 - 110		

Lab Sample ID: MB 410-14865/4
Matrix: Water
Analysis Batch: 14865

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1.0	0.30	mg/L			06/19/20 15:58	1
Chloride	ND		0.40	0.20	mg/L			06/19/20 15:58	1

Lab Sample ID: LCS 410-14865/3
Matrix: Water
Analysis Batch: 14865

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			7.50	7.69		mg/L		103	90 - 110		
Chloride			3.00	2.81		mg/L		94	90 - 110		

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-15168/1-A
Matrix: Solid
Analysis Batch: 16212

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15168

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.2	0.47	mg/Kg		06/22/20 04:43	06/24/20 07:39	1

Lab Sample ID: LCS 410-15168/2-A
Matrix: Solid
Analysis Batch: 16212

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15168

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			2.97	2.86		mg/Kg		96	80 - 120		

Lab Sample ID: LCSD 410-15168/3-A
Matrix: Solid
Analysis Batch: 16212

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 15168

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead			2.88	2.89		mg/Kg		100	80 - 120	1	20

Lab Sample ID: MB 410-15200/1-A
Matrix: Water
Analysis Batch: 16656

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 15200

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	ND		0.50	0.20	mg/L		06/22/20 06:56	06/25/20 07:19	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 410-15200/2-A
Matrix: Water
Analysis Batch: 16656

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 15200

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	5.60	5.80		mg/L		103	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 410-19045/1-A
Matrix: Water
Analysis Batch: 20765

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19045

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		07/02/20 13:47	07/08/20 18:26	1

Lab Sample ID: LCS 410-19045/2-A
Matrix: Water
Analysis Batch: 20765

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19045

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	4.92	4.68		ug/L		95	90 - 110

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 410-15850/50
Matrix: Water
Analysis Batch: 15850

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8.0	8.0	mg/L			06/23/20 01:58	1

Lab Sample ID: LCS 410-15850/51
Matrix: Water
Analysis Batch: 15850

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	189	170		mg/L		90	82 - 106

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 410-15813/1
Matrix: Water
Analysis Batch: 15813

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.30	0.10	mg/L			06/23/20 10:08	1

Lab Sample ID: LCS 410-15813/13
Matrix: Water
Analysis Batch: 15813

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	1.00	1.03		mg/L		103	90 - 110

Method: SM4500 NH3 - Ammonia

Lab Sample ID: MB 410-17577/1-A
Matrix: Water
Analysis Batch: 17643

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17577

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia-N	ND		0.75	0.25	mg/L		06/29/20 09:57	06/29/20 12:36	1

Lab Sample ID: LCS 410-17577/2-A
Matrix: Water
Analysis Batch: 17643

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17577

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia-N			10.0	9.93		mg/L		99	93 - 100		

Lab Sample ID: LCSD 410-17577/3-A
Matrix: Water
Analysis Batch: 17643

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 17577

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia-N			10.0	9.81		mg/L		98	93 - 100	1	5

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-4913-1

GC/MS VOA

Prep Batch: 14845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4913-1	CD-12-S-25.0-20200617	Total/NA	Solid	5035	

Analysis Batch: 17200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-17200/8	Method Blank	Total/NA	Solid	8260C	
LCS 410-17200/5	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 410-17200/6	Lab Control Sample Dup	Total/NA	Solid	8260C	

Analysis Batch: 18026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4913-1	CD-12-S-25.0-20200617	Total/NA	Solid	8260C	14845
MB 410-18026/11	Method Blank	Total/NA	Solid	8260C	
LCS 410-18026/6	Lab Control Sample	Total/NA	Solid	8260C	
LCS 410-18026/8	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 410-18026/7	Lab Control Sample Dup	Total/NA	Solid	8260C	
LCSD 410-18026/9	Lab Control Sample Dup	Total/NA	Solid	8260C	

Analysis Batch: 19153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4913-2	CD-12-W-25.0-20200618	Total/NA	Water	8260C	
MB 410-19153/7	Method Blank	Total/NA	Water	8260C	
LCS 410-19153/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 410-19153/5	Lab Control Sample Dup	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 15096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4913-1	CD-12-S-25.0-20200617	Total/NA	Solid	3546	
MB 410-15096/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-15096/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 15224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-15096/1-A	Method Blank	Total/NA	Solid	8270D	15096
LCS 410-15096/2-A	Lab Control Sample	Total/NA	Solid	8270D	15096

Analysis Batch: 15653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4913-1	CD-12-S-25.0-20200617	Total/NA	Solid	8270D	15096

GC VOA

Analysis Batch: 15291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4913-2	CD-12-W-25.0-20200618	Total/NA	Water	RSK-175	15345
MB 410-15345/1-A	Method Blank	Total/NA	Water	RSK-175	15345
LCS 410-15345/2-A	Lab Control Sample	Total/NA	Water	RSK-175	15345
LCSD 410-15345/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	15345

GC VOA

Prep Batch: 15345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4913-2	CD-12-W-25.0-20200618	Total/NA	Water	RSK-175	
MB 410-15345/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-15345/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-15345/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Prep Batch: 16239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4913-2 - DL	CD-12-W-25.0-20200618	Total/NA	Water	RSK-175	
MB 410-16239/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-16239/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-16239/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 16252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4913-2 - DL	CD-12-W-25.0-20200618	Total/NA	Water	RSK-175	16239
MB 410-16239/1-A	Method Blank	Total/NA	Water	RSK-175	16239
LCS 410-16239/2-A	Lab Control Sample	Total/NA	Water	RSK-175	16239
LCSD 410-16239/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	16239

Analysis Batch: 19123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4913-2	CD-12-W-25.0-20200618	Total/NA	Water	8015D	
MB 410-19123/4	Method Blank	Total/NA	Water	8015D	
LCS 410-19123/5	Lab Control Sample	Total/NA	Water	8015D	
LCSD 410-19123/6	Lab Control Sample Dup	Total/NA	Water	8015D	

GC Semi VOA

Prep Batch: 15541

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4913-2	CD-12-W-25.0-20200618	Total/NA	Water	8011	
MB 410-15541/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-15541/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-15541/3-A	Lab Control Sample Dup	Total/NA	Water	8011	
410-4913-2 MS	CD-12-W-25.0-20200618	Total/NA	Water	8011	

Prep Batch: 15627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4913-1	CD-12-S-25.0-20200617	Total/NA	Solid	3546	
MB 410-15627/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-15627/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 17081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4913-1	CD-12-S-25.0-20200617	Total/NA	Solid	8015C	15627
MB 410-15627/1-A	Method Blank	Total/NA	Solid	8015C	15627
LCS 410-15627/2-A	Lab Control Sample	Total/NA	Solid	8015C	15627

Analysis Batch: 17189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4913-2	CD-12-W-25.0-20200618	Total/NA	Water	8011	15541

GC Semi VOA (Continued)

Analysis Batch: 17189 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-15541/1-A	Method Blank	Total/NA	Water	8011	15541
LCS 410-15541/2-A	Lab Control Sample	Total/NA	Water	8011	15541
LCSD 410-15541/3-A	Lab Control Sample Dup	Total/NA	Water	8011	15541
410-4913-2 MS	CD-12-W-25.0-20200618	Total/NA	Water	8011	15541

Prep Batch: 18609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4913-1	CD-12-S-25.0-20200617	Total/NA	Solid	8011	

Analysis Batch: 18673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4913-1	CD-12-S-25.0-20200617	Total/NA	Solid	8011	18609

Analysis Batch: 28450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4913-1	CD-12-S-25.0-20200617	Total/NA	Solid	Total TPH	

HPLC/IC

Analysis Batch: 14837

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-14837/38	Method Blank	Total/NA	Water	300.0	
MB 410-14837/5	Method Blank	Total/NA	Water	300.0	
LCS 410-14837/37	Lab Control Sample	Total/NA	Water	300.0	
LCS 410-14837/4	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 14864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4913-2	CD-12-W-25.0-20200618	Total/NA	Water	300.0	
MB 410-14864/4	Method Blank	Total/NA	Water	300.0	
LCS 410-14864/3	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 14865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4913-2	CD-12-W-25.0-20200618	Total/NA	Water	300.0	
MB 410-14865/4	Method Blank	Total/NA	Water	300.0	
LCS 410-14865/3	Lab Control Sample	Total/NA	Water	300.0	

Metals

Prep Batch: 15168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4913-1	CD-12-S-25.0-20200617	Total/NA	Solid	3050B	
MB 410-15168/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 410-15168/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 410-15168/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	

Prep Batch: 15200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4913-2	CD-12-W-25.0-20200618	Total Recoverable	Water	3005A	
MB 410-15200/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-15200/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Metals

Analysis Batch: 16212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4913-1	CD-12-S-25.0-20200617	Total/NA	Solid	6010C	15168
MB 410-15168/1-A	Method Blank	Total/NA	Solid	6010C	15168
LCS 410-15168/2-A	Lab Control Sample	Total/NA	Solid	6010C	15168
LCSD 410-15168/3-A	Lab Control Sample Dup	Total/NA	Solid	6010C	15168

Analysis Batch: 16656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4913-2	CD-12-W-25.0-20200618	Total Recoverable	Water	6010C	15200
MB 410-15200/1-A	Method Blank	Total Recoverable	Water	6010C	15200
LCS 410-15200/2-A	Lab Control Sample	Total Recoverable	Water	6010C	15200

Filtration Batch: 19040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4913-2	CD-12-W-25.0-20200618	Dissolved	Water	Filtration	

Prep Batch: 19045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4913-2	CD-12-W-25.0-20200618	Dissolved	Water	Non-Digest Prep	19040
MB 410-19045/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-19045/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	

Analysis Batch: 20765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4913-2	CD-12-W-25.0-20200618	Dissolved	Water	6020A	19045
MB 410-19045/1-A	Method Blank	Total/NA	Water	6020A	19045
LCS 410-19045/2-A	Lab Control Sample	Total/NA	Water	6020A	19045

General Chemistry

Analysis Batch: 14928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4913-1	CD-12-S-25.0-20200617	Total/NA	Solid	Moisture	

Analysis Batch: 15813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4913-2	CD-12-W-25.0-20200618	Total/NA	Water	SM 4500 S2 D	
MB 410-15813/1	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 410-15813/13	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	

Analysis Batch: 15850

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4913-2	CD-12-W-25.0-20200618	Total/NA	Water	SM 2320B	
MB 410-15850/50	Method Blank	Total/NA	Water	SM 2320B	
LCS 410-15850/51	Lab Control Sample	Total/NA	Water	SM 2320B	

Prep Batch: 17577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4913-2	CD-12-W-25.0-20200618	Total/NA	Water	SM 4500 NH3 B	
MB 410-17577/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 B	
LCS 410-17577/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 B	
LCSD 410-17577/3-A	Lab Control Sample Dup	Total/NA	Water	SM 4500 NH3 B	

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-4913-1

General Chemistry

Analysis Batch: 17643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-4913-2	CD-12-W-25.0-20200618	Total/NA	Water	SM4500 NH3	17577
MB 410-17577/1-A	Method Blank	Total/NA	Water	SM4500 NH3	17577
LCS 410-17577/2-A	Lab Control Sample	Total/NA	Water	SM4500 NH3	17577
LCSD 410-17577/3-A	Lab Control Sample Dup	Total/NA	Water	SM4500 NH3	17577

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-4913-1

Client Sample ID: CD-12-S-25.0-20200617

Lab Sample ID: 410-4913-1

Date Collected: 06/17/20 17:15

Matrix: Solid

Date Received: 06/18/20 14:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	14928	06/19/20 18:24	OEL4	ELLE

Client Sample ID: CD-12-S-25.0-20200617

Lab Sample ID: 410-4913-1

Date Collected: 06/17/20 17:15

Matrix: Solid

Date Received: 06/18/20 14:37

Percent Solids: 86.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14845	06/19/20 13:32	HDS6	ELLE
Total/NA	Analysis	8260C		1	18026	06/30/20 16:19	ULCP	ELLE
Total/NA	Prep	3546			15096	06/21/20 08:38	DN9W	ELLE
Total/NA	Analysis	8270D		1	15653	06/23/20 11:33	SJ89	ELLE
Total/NA	Prep	8011			18609	07/01/20 13:35	GC5R	ELLE
Total/NA	Analysis	8011		1	18673	07/01/20 22:33	AC3T	ELLE
Total/NA	Prep	3546			15627	06/23/20 09:00	JH8Y	ELLE
Total/NA	Analysis	8015C		1	17081	06/25/20 15:45	YHQ2	ELLE
Total/NA	Analysis	Total TPH		1	28450	07/31/20 09:17	KP5X	ELLE
Total/NA	Prep	3050B			15168	06/22/20 04:43	UAMX	ELLE
Total/NA	Analysis	6010C		1	16212	06/24/20 08:34	ULJC	ELLE

Client Sample ID: CD-12-W-25.0-20200618

Lab Sample ID: 410-4913-2

Date Collected: 06/18/20 08:50

Matrix: Water

Date Received: 06/18/20 14:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	19153	07/02/20 23:16	NSK7	ELLE
Total/NA	Analysis	8015D		1	19123	07/02/20 21:52	JJT8	ELLE
Total/NA	Prep	RSK-175			15345	06/22/20 11:01	IYN5	ELLE
Total/NA	Analysis	RSK-175		1	15291	06/23/20 01:10	IYN5	ELLE
Total/NA	Prep	RSK-175	DL		16239	06/24/20 10:28	IYN5	ELLE
Total/NA	Analysis	RSK-175	DL	10	16252	06/24/20 14:16	IYN5	ELLE
Total/NA	Prep	8011			15541	06/22/20 22:03	K2IL	ELLE
Total/NA	Analysis	8011		1	17189	06/27/20 07:56	AC3T	ELLE
Total/NA	Analysis	300.0		5	14864	06/19/20 23:37	GJ35	ELLE
Total/NA	Analysis	300.0		5	14865	06/19/20 23:37	GJ35	ELLE
Total Recoverable	Prep	3005A			15200	06/22/20 06:56	UAMX	ELLE
Total Recoverable	Analysis	6010C		5	16656	06/25/20 09:01	ULJC	ELLE
Dissolved	Filtration	Filtration			19040	07/02/20 13:11	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			19045	07/02/20 13:47	UJLA	ELLE
Dissolved	Analysis	6020A		1	20765	07/08/20 19:27	BMB	ELLE
Total/NA	Analysis	SM 2320B		1	15850	06/23/20 02:58	JB	ELLE
Total/NA	Analysis	SM 4500 S2 D		100	15813	06/23/20 10:08	P8DZ	ELLE
Total/NA	Prep	SM 4500 NH3 B			17577	06/29/20 09:57	UYB0	ELLE
Total/NA	Analysis	SM4500 NH3		1	17643	06/29/20 12:36	UYB0	ELLE

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-4913-1

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp. Job ID: 410-4913-1
Project/Site: PHL Penrose Drilling Sampling

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015C	3546	Solid	>C12-C22 (1C)
8015C	3546	Solid	>C22-C44 (1C)
Moisture		Solid	Percent Moisture
Total TPH		Solid	Total Reported TPH

Method Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-4913-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
8015D	Gasoline Range Organics (GRO) (GC)	SW846	ELLE
RSK-175	Dissolved Gases (GC)	RSK	ELLE
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	ELLE
Total TPH	Total TPH	None	ELLE
300.0	Anions, Ion Chromatography	MCAWW	ELLE
6010C	Metals (ICP)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
Moisture	Percent Moisture	EPA	ELLE
SM 2320B	Alkalinity	SM	ELLE
SM 4500 S2 D	Sulfide, Total	SM	ELLE
SM4500 NH3	Ammonia	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
3050B	Preparation, Metals	SW846	ELLE
3546	Microwave Extraction	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
5035	Closed System Purge and Trap	SW846	ELLE
8011	Microextraction	SW846	ELLE
Filtration	Sample Filtration	None	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE
SM 4500 NH3 B	Distillation, Ammonia	SM	ELLE

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-4913-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-4913-1	CD-12-S-25.0-20200617	Solid	06/17/20 17:15	06/18/20 14:37	
410-4913-2	CD-12-W-25.0-20200618	Water	06/18/20 08:50	06/18/20 14:37	

Environmental Analysis f Custody

eurofins | Lancaster Laboratories Environmental

Acct. # __ 410-4913 Chain of Custody

vironmental use only

_____

COC #608751

Client Information

Client: Evergreen c/o Stantec	Acct. #: 16657
Project Name/#: 213402602 PHL Penrose Drilling Sampling	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 213402602
Sampler: Dane Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix

Soil ☒ Sediment ☐ Tissue ☐ | Water ☐ Potable ☒ Ground ☐ NPDES ☐ Surface | Other: ___

Analysis Requested

Preservation and Filtration Codes

H/O | N | O | H | S | H/O

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	Custom TPH with Ranges	TPH-GRO 8260/moisture	Metal 6010 / Lead (dissolved 6020 and 6010)	Sulfide	Chloride Nitrate Nitrogen, Sulfate	Volatile Headspace Hydrocarbons	Total Alkalinity to 4.5	Ammonia Nitrogen (include TKN + EPA 350.1)	Short List VOCs 8260*	Short List SVOCs 8270*
CD-12-S-25.0-20200617	6/17/20	1715	X		6	X	X	(X)					X	X	
CD-12-W-25.0-20200618	6/18/20	0850	X		16	X	X	X	X	X	X	X	X	X	X

For Lab Use Only

FSC: _____

SCR#: _____

Preservation Codes

H=HCl	T=Thiosulfate
N=HNO_3	B=NaOH
S=H_2SO_4	P=H_3PO_4
F=Field Filtered	O=Other

Remarks

* refer to Evergreen Petroleum Short List for list of analytes

(X) = dissolved lead 6020 only

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: Andrew.Klingbeil

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)

Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13

NYSDEC Category A or B | MA MCP | CT RCP

Relinquished by	Date	Time	Received by	Date	Time
Dane	6/18/20	1210	Pierre	6/12/1	2.10
Pierre	6/18/20	1425			
				6/18/20	1437

EDD Required? Yes No

If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____

Temperature upon receipt 2.0 °C

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The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0919

INM

Login Sample Receipt Checklist

Client: Stantec Consulting Corp. Job Number: 410-4913-1

Login Number: 4913 **List Source: Eurofins Lancaster Laboratories Env**
List Number: 1
Creator: Mathers, William

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-5078-1
Client Project/Site: PHL Penrose Drilling Sampling
Revision: 1

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Andrew Klingbeil

Authorized for release by:
10/9/2020 1:34:27 PM

Amek Carter, Project Manager
(717)556-7252
amekcarter@eurofinsus.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

* QC recoveries that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result.
* Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
* Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
10/9/2020 1:34:27 PM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 6
Detection Summary 8
Client Sample Results 9
Surrogate Summary 11
QC Sample Results 13
QC Association Summary 23
Lab Chronicle 27
Certification Summary 28
Method Summary 29
Sample Summary 30
Chain of Custody 31
Receipt Checklists 32

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-5078-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
XH	Surrogate recovery is above control limits
XL	Surrogate recovery is below control limits

HPLC/IC

Qualifier	Qualifier Description
^c	CCV Recovery is outside acceptance limits.
FH	MS and/or MSD recovery above control limits.
H	Sample was prepped or analyzed beyond the specified holding time

Metals

Qualifier	Qualifier Description
*H	LCS and/or LCSD recovery above control limits.
B	Compound was found in the blank and sample.
B	Compound was found in the blank. The analyte is not detected in the associated sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-5078-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-5078-1

Comments
No additional comments.

Revision
The report being provided is a revision of the original report sent on 8/10/2020. The report (revision 1) is being revised due to: Benzene not included in original reporting list.

Receipt
The sample was received on 6/19/2020 4:15 PM; the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.4º C.

Receipt Exceptions

TBA not included in original reporting list.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

HPLC/IC
Method 300.0: The continuing calibration verification (CCV) associated with batch 410-18581 exhibited % difference of > 10% for the following analyte(s) Chloride; however the percent recovery was within the window of 89.5-110.4%.

Method 300.0: The continuing calibration verification (CCV) associated with batch 410-18581 exhibited % difference of > 10% for the following analyte(s) Chloride; however the percent recovery was within the window of 89.5-110.4%.

Method 300.0: The following sample was analyzed outside of analytical holding time due to scheduling error CD-12-W-45.0-20200619 (410-5078-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC VOA
Method 8015D: The container used for reanalysis of the following sample contained headspace: CD-12-W-45.0-20200619 (410-5078-1) The method used for analysis requires that the sample does not contain headspace.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method 8011: Surrogate recovery for the following sample was outside the upper control limit on the secondary column: (410-4913-C-2-A). The surrogate met the acceptance criteria on the primary column and this sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8015C: Surrogate Chlorobenzene recovery for the following sample was outside control limits: CD-12-W-45.0-20200619 (410-5078-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method 6010C: The method blank for preparation batch 410-15565 and analytical batch 410-15953 contained Potassium above the

Job ID: 410-5078-1 (Continued)

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Conti

method detection limit (MDL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method 6020A: The laboratory control sample (LCS) for preparation batch 410-15586 and 410-17900 and analytical batch 410-19068 recovered outside control limits for the following analytes: Lead. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method Filtration: The following samples requested dissolved metals and were not filtered in the field: CD-12-W-45.0-20200619 (410-5078-1). These samples were filtered and preserved upon receipt to the laboratory.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-5078-1

Client Sample ID: CD-12-W-45.0-20200619

Lab Sample ID: 410-5078-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	6.7		5.0	1.0	ug/L	1		8260C	Total/NA
1,3,5-Trimethylbenzene	9.0		5.0	0.30	ug/L	1		8260C	Total/NA
Ethylbenzene	160		1.0	0.40	ug/L	1		8260C	Total/NA
Isopropylbenzene	44		5.0	0.20	ug/L	1		8260C	Total/NA
Toluene	78		1.0	0.20	ug/L	1		8260C	Total/NA
Xylenes, Total	160		6.0	1.4	ug/L	1		8260C	Total/NA
Fluorene	0.19	J	0.50	0.10	ug/L	1		8270D	Total/NA
Naphthalene	58		0.50	0.10	ug/L	1		8270D	Total/NA
C5-C12 (1C)	6000	E	50	14	ug/L	1		8015D	Total/NA
Ethane (1C)	2.0	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	11000		250	150	ug/L	50		RSK-175	Total/NA
>C12-C22 (1C)	0.46		0.095	0.035	mg/L	1		8015C	Total/NA
>C22-C44 (1C)	0.12		0.095	0.035	mg/L	1		8015C	Total/NA
Total Reported TPH	0.58		0.20	0.074	mg/L	1		Total TPH	Total/NA
Nitrogen, Nitrate	0.88	H	0.50	0.25	mg/L	5		300.0	Total/NA
Sulfate	65	FH	5.0	1.5	mg/L	5		300.0	Total/NA
Chloride	17	^c	2.0	1.0	mg/L	5		300.0	Total/NA
Calcium	25		0.20	0.096	mg/L	1		6010C	Total Recoverable
Magnesium	12		0.10	0.040	mg/L	1		6010C	Total Recoverable
Potassium	3.1	B	0.50	0.20	mg/L	1		6010C	Total Recoverable
Sodium	54		1.0	0.24	mg/L	1		6010C	Total Recoverable
Iron	13		0.20	0.040	mg/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	160		8.0	8.0	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CD-12-W-45.0-20200619

Date Collected: 06/19/20 10:00
Date Received: 06/19/20 16:15

Lab Sample ID: 410-5078-1

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**6.7**		5.0	1.0	ug/L			07/03/20 01:06	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			07/03/20 01:06	1
1,3,5-Trimethylbenzene	**9.0**		5.0	0.30	ug/L			07/03/20 01:06	1
Ethylbenzene	**160**		1.0	0.40	ug/L			07/03/20 01:06	1
Isopropylbenzene	**44**		5.0	0.20	ug/L			07/03/20 01:06	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			07/03/20 01:06	1
Toluene	**78**		1.0	0.20	ug/L			07/03/20 01:06	1
Xylenes, Total	**160**		6.0	1.4	ug/L			07/03/20 01:06	1
t-Butyl alcohol	ND		50	12	ug/L			07/03/20 01:06	1
Benzene	ND		1.0	0.20	ug/L			07/03/20 01:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 120*		*07/03/20 01:06*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*07/03/20 01:06*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*07/03/20 01:06*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*07/03/20 01:06*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		06/26/20 18:10	07/02/20 05:20	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		06/26/20 18:10	07/02/20 05:20	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		06/26/20 18:10	07/02/20 05:20	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		06/26/20 18:10	07/02/20 05:20	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		06/26/20 18:10	07/02/20 05:20	1
Chrysene	ND		0.50	0.10	ug/L		06/26/20 18:10	07/02/20 05:20	1
Fluorene	**0.19**	**J**	0.50	0.10	ug/L		06/26/20 18:10	07/02/20 05:20	1
Naphthalene	**58**		0.50	0.10	ug/L		06/26/20 18:10	07/02/20 05:20	1
Phenanthrene	ND		0.50	0.10	ug/L		06/26/20 18:10	07/02/20 05:20	1
Pyrene	ND		0.50	0.10	ug/L		06/26/20 18:10	07/02/20 05:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14 (Surr)	*61*		*34 - 128*	*06/26/20 18:10*	*07/02/20 05:20*	*1*
Nitrobenzene-d5 (Surr)	*73*		*38 - 113*	*06/26/20 18:10*	*07/02/20 05:20*	*1*
2-Fluorobiphenyl (Surr)	*64*		*44 - 102*	*06/26/20 18:10*	*07/02/20 05:20*	*1*

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C12 (1C)	**6000**	**E**	50	14	ug/L			07/02/20 22:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (fid) (1C)	*93*		*63 - 135*		*07/02/20 22:18*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**2.0**	**J**	5.0	1.0	ug/L		06/26/20 10:12	06/26/20 14:29	1
Ethene (1C)	ND		5.0	1.0	ug/L		06/26/20 10:12	06/26/20 14:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*64*		*28 - 140*	*06/26/20 10:12*	*06/26/20 14:29*	*1*

Client Sample ID: CD-12-W-45.0-20200619

Date Collected: 06/19/20 10:00
Date Received: 06/19/20 16:15

Lab Sample ID: 410-5078-1

Matrix: Water

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**11000**		250	150	ug/L		06/29/20 08:52	06/29/20 16:51	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*100*		*28 - 140*	*06/29/20 08:52*	*06/29/20 16:51*	*50*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (2C)	ND		0.029	0.0095	ug/L		06/22/20 22:03	06/27/20 08:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*78*		*46 - 136*	*06/22/20 22:03*	*06/27/20 08:31*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*58*		*46 - 136*	*06/22/20 22:03*	*06/27/20 08:31*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	**0.46**		0.095	0.035	mg/L		06/23/20 00:47	06/25/20 11:43	1
>C22-C44 (1C)	**0.12**		0.095	0.035	mg/L		06/23/20 00:47	06/25/20 11:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*131*	*XH*	*21 - 116*	*06/23/20 00:47*	*06/25/20 11:43*	*1*
o- terphenyl (Surr) (1C)	*86*		*51 - 126*	*06/23/20 00:47*	*06/25/20 11:43*	*1*

Method: Total TPH - Total TPH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Reported TPH	**0.58**		0.20	0.074	mg/L			07/31/20 09:17	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	**0.88**	**H**	0.50	0.25	mg/L			06/29/20 16:04	5
Sulfate	**65**	**FH**	5.0	1.5	mg/L			07/16/20 13:30	5
Chloride	**17**	**^c**	2.0	1.0	mg/L			06/29/20 16:04	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**25**		0.20	0.096	mg/L		06/23/20 03:29	06/23/20 17:59	1
Magnesium	**12**		0.10	0.040	mg/L		06/23/20 03:29	06/23/20 17:59	1
Potassium	**3.1**	**B**	0.50	0.20	mg/L		06/23/20 03:29	06/23/20 17:59	1
Sodium	**54**		1.0	0.24	mg/L		06/23/20 03:29	06/23/20 17:59	1
Iron	**13**		0.20	0.040	mg/L		06/23/20 03:29	06/23/20 17:59	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND	*H	0.52	0.073	ug/L		06/30/20 06:49	07/02/20 09:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**160**		8.0	8.0	mg/L			06/25/20 09:24	1
Sulfide	ND		0.30	0.10	mg/L			06/23/20 10:08	1
Ammonia-N	ND		1.1	0.36	mg/L		06/29/20 09:57	06/29/20 12:36	1

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-5078-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-5078-1	CD-12-W-45.0-20200619	98	100	98	103
LCS 410-19153/4	Lab Control Sample	99	100	101	100
LCSD 410-19153/5	Lab Control Sample Dup	99	101	101	100
MB 410-19153/7	Method Blank	99	99	100	99

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		TPHd14	NBZ	FBP
Lab Sample ID	Client Sample ID	(34-128)	(38-113)	(44-102)
410-5078-1	CD-12-W-45.0-20200619	61	73	64
LCS 410-17203/2-A	Lab Control Sample	101	85	71
LCSD 410-17203/3-A	Lab Control Sample Dup	93	81	60
MB 410-17203/1-A	Method Blank	91	77	59

Surrogate Legend

TPHd14 = p-Terphenyl-d14 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
FBP = 2-Fluorobiphenyl (Surr)

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		TFT-F1
Lab Sample ID	Client Sample ID	(63-135)
410-5078-1	CD-12-W-45.0-20200619	93
LCS 410-19123/5	Lab Control Sample	78
LCSD 410-19123/6	Lab Control Sample Dup	78
MB 410-19123/4	Method Blank	85

Surrogate Legend

TFT-F = a,a,a-Trifluorotoluene (fid)

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		Propene1
Lab Sample ID	Client Sample ID	(28-140)
410-5078-1	CD-12-W-45.0-20200619	64
410-5078-1 - DL	CD-12-W-45.0-20200619	100
LCS 410-17098/2-A	Lab Control Sample	95
LCS 410-17530/2-A	Lab Control Sample	109
LCSD 410-17098/3-A	Lab Control Sample Dup	100

Surrogate Summary

Client: Stantec Consulting Corp.
Job ID: 410-5078-1
Project/Site: PHL Penrose Drilling Sampling

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)										
		Propene1										
Lab Sample ID	Client Sample ID	(28-140)										
LCSD 410-17530/3-A	Lab Control Sample Dup	99										
MB 410-17098/1-A	Method Blank	96										
MB 410-17530/1-A	Method Blank	101										

Surrogate Legend

Propene = Propene

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)										
		1122TCA1	1122TCA2									
Lab Sample ID	Client Sample ID	(46-136)	(46-136)									
410-5078-1	CD-12-W-45.0-20200619	78	58									
LCS 410-15541/2-A	Lab Control Sample	45 XL	43 XL									
LCSD 410-15541/3-A	Lab Control Sample Dup	46	46									
MB 410-15541/1-A	Method Blank	42 XL	43 XL									

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)										
		CBNZ1	OTP1									
Lab Sample ID	Client Sample ID	(21-116)	(51-126)									
410-5078-1	CD-12-W-45.0-20200619	131 XH	86									
LCS 410-15558/2-A	Lab Control Sample	57	84									
LCSD 410-15558/3-A	Lab Control Sample Dup	74	94									
MB 410-15558/1-A	Method Blank	69	81									

Surrogate Legend

CBNZ = Chlorobenzene (Surr)

OTP = o- terphenyl (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-19153/7
Matrix: Water
Analysis Batch: 19153

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			07/02/20 22:46	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			07/02/20 22:46	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			07/02/20 22:46	1
Ethylbenzene	ND		1.0	0.40	ug/L			07/02/20 22:46	1
Isopropylbenzene	ND		5.0	0.20	ug/L			07/02/20 22:46	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			07/02/20 22:46	1
Toluene	ND		1.0	0.20	ug/L			07/02/20 22:46	1
Xylenes, Total	ND		6.0	1.4	ug/L			07/02/20 22:46	1
t-Butyl alcohol	ND		50	12	ug/L			07/02/20 22:46	1
Benzene	ND		1.0	0.20	ug/L			07/02/20 22:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*		*07/02/20 22:46*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*07/02/20 22:46*	*1*
Dibromofluoromethane (Surr)	*100*		*80 - 120*		*07/02/20 22:46*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*07/02/20 22:46*	*1*

Lab Sample ID: LCS 410-19153/4
Matrix: Water
Analysis Batch: 19153

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2,4-Trimethylbenzene			20.0	20.7		ug/L		103	75 - 120		
1,2-Dichloroethane			20.0	20.1		ug/L		100	73 - 124		
1,3,5-Trimethylbenzene			20.0	20.9		ug/L		104	75 - 120		
Ethylbenzene			20.0	20.8		ug/L		104	80 - 120		
Isopropylbenzene			20.0	21.1		ug/L		105	80 - 120		
Methyl tertiary butyl ether			20.0	18.7		ug/L		94	69 - 122		
Naphthalene			20.0	21.2		ug/L		106	53 - 124		
Toluene			20.0	20.5		ug/L		102	80 - 120		
Xylenes, Total			60.0	62.1		ug/L		104	80 - 120		
t-Butyl alcohol			200	196		ug/L		98	60 - 130		
Benzene			20.0	20.0		ug/L		100	80 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*101*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Lab Sample ID: LCSD 410-19153/5
Matrix: Water
Analysis Batch: 19153

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene			20.0	21.6		ug/L		108	75 - 120	4	30
1,2-Dichloroethane			20.0	21.5		ug/L		108	73 - 124	7	30
1,3,5-Trimethylbenzene			20.0	21.9		ug/L		109	75 - 120	5	30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-19153/5
Matrix: Water
Analysis Batch: 19153

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene			20.0	21.6		ug/L		108	80 - 120	4	30
Isopropylbenzene			20.0	22.1		ug/L		111	80 - 120	5	30
Methyl tertiary butyl ether			20.0	18.9		ug/L		95	69 - 122	1	30
Naphthalene			20.0	21.8		ug/L		109	53 - 124	3	30
Toluene			20.0	21.6		ug/L		108	80 - 120	5	30
Xylenes, Total			60.0	64.9		ug/L		108	80 - 120	4	30
t-Butyl alcohol			200	203		ug/L		101	60 - 130	3	30
Benzene			20.0	20.6		ug/L		103	80 - 120	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*101*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-17203/1-A
Matrix: Water
Analysis Batch: 18742

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17203

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		06/26/20 18:10	07/02/20 00:31	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		06/26/20 18:10	07/02/20 00:31	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		06/26/20 18:10	07/02/20 00:31	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		06/26/20 18:10	07/02/20 00:31	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		06/26/20 18:10	07/02/20 00:31	1
Chrysene	ND		0.50	0.10	ug/L		06/26/20 18:10	07/02/20 00:31	1
Fluorene	ND		0.50	0.10	ug/L		06/26/20 18:10	07/02/20 00:31	1
Naphthalene	ND		0.50	0.10	ug/L		06/26/20 18:10	07/02/20 00:31	1
Phenanthrene	ND		0.50	0.10	ug/L		06/26/20 18:10	07/02/20 00:31	1
Pyrene	ND		0.50	0.10	ug/L		06/26/20 18:10	07/02/20 00:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14 (Surr)	*91*		*34 - 128*	*06/26/20 18:10*	*07/02/20 00:31*	*1*
Nitrobenzene-d5 (Surr)	*77*		*38 - 113*	*06/26/20 18:10*	*07/02/20 00:31*	*1*
2-Fluorobiphenyl (Surr)	*59*		*44 - 102*	*06/26/20 18:10*	*07/02/20 00:31*	*1*

Lab Sample ID: LCS 410-17203/2-A
Matrix: Water
Analysis Batch: 18742

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17203

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene			50.1	44.8		ug/L		89	67 - 116
Benzo[a]anthracene			50.0	49.8		ug/L		100	68 - 123
Benzo[a]pyrene			50.2	46.2		ug/L		92	71 - 117
Benzo[b]fluoranthene			50.1	50.6		ug/L		101	69 - 121
Benzo[g,h,i]perylene			50.1	45.6		ug/L		91	60 - 119

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-17203/2-A
Matrix: Water
Analysis Batch: 18742

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17203

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chrysene			50.0	48.0		ug/L		96	65 - 121		
Fluorene			50.1	46.2		ug/L		92	56 - 115		
Naphthalene			50.4	39.0		ug/L		77	51 - 102		
Phenanthrene			50.2	45.9		ug/L		91	65 - 113		
Pyrene			50.4	46.9		ug/L		93	65 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
p-Terphenyl-d14 (Surr)	*101*		*34 - 128*
Nitrobenzene-d5 (Surr)	*85*		*38 - 113*
2-Fluorobiphenyl (Surr)	*71*		*44 - 102*

Lab Sample ID: LCSD 410-17203/3-A
Matrix: Water
Analysis Batch: 18742

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 17203

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Anthracene			50.1	43.2		ug/L		86	67 - 116	4	30
Benzo[a]anthracene			50.0	45.1		ug/L		90	68 - 123	10	30
Benzo[a]pyrene			50.2	43.8		ug/L		87	71 - 117	5	30
Benzo[b]fluoranthene			50.1	47.7		ug/L		95	69 - 121	6	30
Benzo[g,h,i]perylene			50.1	42.6		ug/L		85	60 - 119	7	30
Chrysene			50.0	42.6		ug/L		85	65 - 121	12	30
Fluorene			50.1	42.3		ug/L		84	56 - 115	9	30
Naphthalene			50.4	33.4		ug/L		66	51 - 102	16	30
Phenanthrene			50.2	43.4		ug/L		87	65 - 113	5	30
Pyrene			50.4	43.1		ug/L		85	65 - 115	9	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
p-Terphenyl-d14 (Surr)	*93*		*34 - 128*
Nitrobenzene-d5 (Surr)	*81*		*38 - 113*
2-Fluorobiphenyl (Surr)	*60*		*44 - 102*

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 410-19123/4
Matrix: Water
Analysis Batch: 19123

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C12 (1C)	ND		50	14	ug/L			07/02/20 20:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (fid) (1C)	*85*		*63 - 135*		*07/02/20 20:35*	*1*

Method: 8015D - Gasoline Range Organics (GRO) (GC) (Continued)

Lab Sample ID: LCS 410-19123/5
Matrix: Water
Analysis Batch: 19123

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C5-C12 (1C)			1100	1130		ug/L		103	66 - 128		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene (fid) (1C)	*78*		*63 - 135*

Lab Sample ID: LCSD 410-19123/6
Matrix: Water
Analysis Batch: 19123

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C5-C12 (1C)			1100	1140		ug/L		104	66 - 128	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene (fid) (1C)	*78*		*63 - 135*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-17098/1-A
Matrix: Water
Analysis Batch: 17102

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17098

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		06/26/20 10:12	06/26/20 11:16	1
Ethene (1C)	ND		5.0	1.0	ug/L		06/26/20 10:12	06/26/20 11:16	1
Methane (1C)	ND		5.0	3.0	ug/L		06/26/20 10:12	06/26/20 11:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*96*		*28 - 140*	*06/26/20 10:12*	*06/26/20 11:16*	*1*

Lab Sample ID: LCS 410-17098/2-A
Matrix: Water
Analysis Batch: 17102

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17098

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	57.4		ug/L		97	85 - 115		
Ethene (1C)			60.4	58.4		ug/L		97	83 - 115		
Methane (1C)			59.4	59.7		ug/L		100	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*95*		*28 - 140*

Lab Sample ID: LCSD 410-17098/3-A
Matrix: Water
Analysis Batch: 17102

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 17098

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	58.6		ug/L		99	85 - 115	2	20
Ethene (1C)			60.4	59.8		ug/L		99	83 - 115	2	20

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCSD 410-17098/3-A
Matrix: Water
Analysis Batch: 17102

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 17098

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methane (1C)			59.4	61.1		ug/L		103	85 - 115	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*100*		*28 - 140*

Lab Sample ID: MB 410-17530/1-A
Matrix: Water
Analysis Batch: 17537

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17530

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		06/29/20 08:52	06/29/20 11:08	1
Ethene (1C)	ND		5.0	1.0	ug/L		06/29/20 08:52	06/29/20 11:08	1
Methane (1C)	ND		5.0	3.0	ug/L		06/29/20 08:52	06/29/20 11:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*101*		*28 - 140*	*06/29/20 08:52*	*06/29/20 11:08*	*1*

Lab Sample ID: LCS 410-17530/2-A
Matrix: Water
Analysis Batch: 17537

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17530

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	60.9		ug/L		103	85 - 115		
Ethene (1C)			60.4	63.7		ug/L		105	83 - 115		
Methane (1C)			59.4	64.2		ug/L		108	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*109*		*28 - 140*

Lab Sample ID: LCSD 410-17530/3-A
Matrix: Water
Analysis Batch: 17537

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 17530

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	60.0		ug/L		101	85 - 115	1	20
Ethene (1C)			60.4	60.9		ug/L		101	83 - 115	4	20
Methane (1C)			59.4	61.4		ug/L		103	85 - 115	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*99*		*28 - 140*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-15541/1-A
Matrix: Water
Analysis Batch: 17189

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15541

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		06/22/20 22:03	06/26/20 22:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*42*	*XL*	*46 - 136*	*06/22/20 22:03*	*06/26/20 22:32*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*43*	*XL*	*46 - 136*	*06/22/20 22:03*	*06/26/20 22:32*	*1*

Lab Sample ID: LCS 410-15541/2-A
Matrix: Water
Analysis Batch: 17189

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15541

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.153		ug/L		119	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*45*	*XL*	*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*43*	*XL*	*46 - 136*

Lab Sample ID: LCSD 410-15541/3-A
Matrix: Water
Analysis Batch: 17189

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 15541

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.154		ug/L		120	60 - 140	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*46*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*46*		*46 - 136*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 410-15558/1-A
Matrix: Water
Analysis Batch: 17081

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15558

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		0.10	0.037	mg/L		06/23/20 00:47	06/25/20 09:57	1
>C22-C44 (1C)	ND		0.10	0.037	mg/L		06/23/20 00:47	06/25/20 09:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*69*		*21 - 116*	*06/23/20 00:47*	*06/25/20 09:57*	*1*
o- terphenyl (Surr) (1C)	*81*		*51 - 126*	*06/23/20 00:47*	*06/25/20 09:57*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: LCS 410-15558/2-A
Matrix: Water
Analysis Batch: 17081

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15558

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
DRO (C10-C28) (1C)			0.800	0.488		mg/L		61	48 - 116		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Chlorobenzene (Surr) (1C)	*57*		*21 - 116*
o- terphenyl (Surr) (1C)	*84*		*51 - 126*

Lab Sample ID: LCSD 410-15558/3-A
Matrix: Water
Analysis Batch: 17081

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 15558

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (C10-C28) (1C)			0.800	0.552		mg/L		69	48 - 116	12	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Chlorobenzene (Surr) (1C)	*74*		*21 - 116*
o- terphenyl (Surr) (1C)	*94*		*51 - 126*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 410-18580/5
Matrix: Water
Analysis Batch: 18580

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND		0.10	0.050	mg/L			06/29/20 07:56	1

Lab Sample ID: LCS 410-18580/4
Matrix: Water
Analysis Batch: 18580

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrogen, Nitrate			0.750	0.688		mg/L		92	90 - 110		

Lab Sample ID: MB 410-18581/5
Matrix: Water
Analysis Batch: 18581

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.40	0.20	mg/L			06/29/20 07:56	1

Lab Sample ID: LCS 410-18581/4
Matrix: Water
Analysis Batch: 18581

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			3.00	2.71		mg/L		90	90 - 110		

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 410-23197/4
Matrix: Water
Analysis Batch: 23197

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND		0.10	0.050	mg/L			07/16/20 11:41	1

Lab Sample ID: LCS 410-23197/3
Matrix: Water
Analysis Batch: 23197

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Nitrate	0.750	0.722		mg/L		96	90 - 110

Lab Sample ID: 410-5078-1 MS
Matrix: Water
Analysis Batch: 23197

Client Sample ID: CD-12-W-45.0-20200619
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Nitrate	0.79	H	2.50	3.05		mg/L		90	90 - 110

Lab Sample ID: 410-5078-1 DU
Matrix: Water
Analysis Batch: 23197

Client Sample ID: CD-12-W-45.0-20200619
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrogen, Nitrate	0.79	H	0.759		mg/L		4	15

Lab Sample ID: MB 410-23198/4
Matrix: Water
Analysis Batch: 23198

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1.0	0.30	mg/L			07/16/20 11:41	1
Chloride	ND		0.40	0.20	mg/L			07/16/20 11:41	1

Lab Sample ID: LCS 410-23198/3
Matrix: Water
Analysis Batch: 23198

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	7.50	7.47		mg/L		100	90 - 110
Chloride	3.00	2.84		mg/L		95	90 - 110

Lab Sample ID: 410-5078-1 MS
Matrix: Water
Analysis Batch: 23198

Client Sample ID: CD-12-W-45.0-20200619
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	17		10.0	27.5		mg/L		102	90 - 110

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 410-5078-1 DU
Matrix: Water
Analysis Batch: 23198

Client Sample ID: CD-12-W-45.0-20200619
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfate	65	FH	65.2		mg/L		0.1	15
Chloride	17		17.4		mg/L		0.3	15

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-15565/1-A
Matrix: Water
Analysis Batch: 15953

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 15565

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.20	0.096	mg/L		06/23/20 03:29	06/23/20 16:34	1
Magnesium	ND		0.10	0.040	mg/L		06/23/20 03:29	06/23/20 16:34	1
Potassium	0.253	J B	0.50	0.20	mg/L		06/23/20 03:29	06/23/20 16:34	1
Sodium	ND		1.0	0.24	mg/L		06/23/20 03:29	06/23/20 16:34	1
Iron	ND		0.20	0.040	mg/L		06/23/20 03:29	06/23/20 16:34	1

Lab Sample ID: LCS 410-15565/2-A
Matrix: Water
Analysis Batch: 15953

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 15565

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	0.400	0.396		mg/L		99	80 - 120
Magnesium	0.200	0.203		mg/L		101	80 - 120
Potassium	5.60	6.00		mg/L		107	80 - 120
Sodium	2.00	2.06		mg/L		103	80 - 120
Iron	0.402	0.390		mg/L		97	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 410-17900/1-A
Matrix: Water
Analysis Batch: 19068

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17900

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		06/30/20 06:49	07/02/20 08:52	1

Lab Sample ID: LCS 410-17900/2-A
Matrix: Water
Analysis Batch: 19068

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17900

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	4.92	5.59	*H	ug/L		114	90 - 110

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-5078-1

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 410-16771/106
Matrix: Water
Analysis Batch: 16771

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8.0	8.0	mg/L			06/25/20 07:19	1

Lab Sample ID: LCS 410-16771/107
Matrix: Water
Analysis Batch: 16771

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	189	183		mg/L		97	82 - 106

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 410-15813/1
Matrix: Water
Analysis Batch: 15813

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.30	0.10	mg/L			06/23/20 10:08	1

Lab Sample ID: LCS 410-15813/13
Matrix: Water
Analysis Batch: 15813

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	1.00	1.03		mg/L		103	90 - 110

Method: SM4500 NH3 - Ammonia

Lab Sample ID: MB 410-17577/1-A
Matrix: Water
Analysis Batch: 17643

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17577

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia-N	ND		0.75	0.25	mg/L		06/29/20 09:57	06/29/20 12:36	1

Lab Sample ID: LCS 410-17577/2-A
Matrix: Water
Analysis Batch: 17643

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17577

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia-N	10.0	9.93		mg/L		99	93 - 100

Lab Sample ID: LCSD 410-17577/3-A
Matrix: Water
Analysis Batch: 17643

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 17577

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia-N	10.0	9.81		mg/L		98	93 - 100	1	5

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-5078-1

GC/MS VOA

Analysis Batch: 19153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5078-1	CD-12-W-45.0-20200619	Total/NA	Water	8260C	
MB 410-19153/7	Method Blank	Total/NA	Water	8260C	
LCS 410-19153/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 410-19153/5	Lab Control Sample Dup	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 17203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5078-1	CD-12-W-45.0-20200619	Total/NA	Water	3510C	
MB 410-17203/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-17203/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-17203/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 18742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5078-1	CD-12-W-45.0-20200619	Total/NA	Water	8270D	17203
MB 410-17203/1-A	Method Blank	Total/NA	Water	8270D	17203
LCS 410-17203/2-A	Lab Control Sample	Total/NA	Water	8270D	17203
LCSD 410-17203/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	17203

GC VOA

Prep Batch: 17098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5078-1	CD-12-W-45.0-20200619	Total/NA	Water	RSK-175	
MB 410-17098/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-17098/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-17098/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 17102

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5078-1	CD-12-W-45.0-20200619	Total/NA	Water	RSK-175	17098
MB 410-17098/1-A	Method Blank	Total/NA	Water	RSK-175	17098
LCS 410-17098/2-A	Lab Control Sample	Total/NA	Water	RSK-175	17098
LCSD 410-17098/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	17098

Prep Batch: 17530

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5078-1 - DL	CD-12-W-45.0-20200619	Total/NA	Water	RSK-175	
MB 410-17530/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-17530/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-17530/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 17537

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5078-1 - DL	CD-12-W-45.0-20200619	Total/NA	Water	RSK-175	17530
MB 410-17530/1-A	Method Blank	Total/NA	Water	RSK-175	17530
LCS 410-17530/2-A	Lab Control Sample	Total/NA	Water	RSK-175	17530
LCSD 410-17530/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	17530

GC VOA

Analysis Batch: 19123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5078-1	CD-12-W-45.0-20200619	Total/NA	Water	8015D	
MB 410-19123/4	Method Blank	Total/NA	Water	8015D	
LCS 410-19123/5	Lab Control Sample	Total/NA	Water	8015D	
LCSD 410-19123/6	Lab Control Sample Dup	Total/NA	Water	8015D	

GC Semi VOA

Prep Batch: 15541

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5078-1	CD-12-W-45.0-20200619	Total/NA	Water	8011	
MB 410-15541/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-15541/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-15541/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Prep Batch: 15558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5078-1	CD-12-W-45.0-20200619	Total/NA	Water	3510C	
MB 410-15558/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-15558/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-15558/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 17081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5078-1	CD-12-W-45.0-20200619	Total/NA	Water	8015C	15558
MB 410-15558/1-A	Method Blank	Total/NA	Water	8015C	15558
LCS 410-15558/2-A	Lab Control Sample	Total/NA	Water	8015C	15558
LCSD 410-15558/3-A	Lab Control Sample Dup	Total/NA	Water	8015C	15558

Analysis Batch: 17189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5078-1	CD-12-W-45.0-20200619	Total/NA	Water	8011	15541
MB 410-15541/1-A	Method Blank	Total/NA	Water	8011	15541
LCS 410-15541/2-A	Lab Control Sample	Total/NA	Water	8011	15541
LCSD 410-15541/3-A	Lab Control Sample Dup	Total/NA	Water	8011	15541

Analysis Batch: 28450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5078-1	CD-12-W-45.0-20200619	Total/NA	Water	Total TPH	

HPLC/IC

Analysis Batch: 18580

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5078-1	CD-12-W-45.0-20200619	Total/NA	Water	300.0	
MB 410-18580/5	Method Blank	Total/NA	Water	300.0	
LCS 410-18580/4	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 18581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5078-1	CD-12-W-45.0-20200619	Total/NA	Water	300.0	
MB 410-18581/5	Method Blank	Total/NA	Water	300.0	
LCS 410-18581/4	Lab Control Sample	Total/NA	Water	300.0	

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-5078-1

HPLC/IC

Analysis Batch: 23197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-23197/4	Method Blank	Total/NA	Water	300.0	
LCS 410-23197/3	Lab Control Sample	Total/NA	Water	300.0	
410-5078-1 MS	CD-12-W-45.0-20200619	Total/NA	Water	300.0	
410-5078-1 DU	CD-12-W-45.0-20200619	Total/NA	Water	300.0	

Analysis Batch: 23198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5078-1	CD-12-W-45.0-20200619	Total/NA	Water	300.0	
MB 410-23198/4	Method Blank	Total/NA	Water	300.0	
LCS 410-23198/3	Lab Control Sample	Total/NA	Water	300.0	
410-5078-1 MS	CD-12-W-45.0-20200619	Total/NA	Water	300.0	
410-5078-1 DU	CD-12-W-45.0-20200619	Total/NA	Water	300.0	

Metals

Prep Batch: 15565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5078-1	CD-12-W-45.0-20200619	Total Recoverable	Water	3005A	
MB 410-15565/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-15565/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Filtration Batch: 15586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5078-1	CD-12-W-45.0-20200619	Dissolved	Water	Filtration	

Analysis Batch: 15953

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5078-1	CD-12-W-45.0-20200619	Total Recoverable	Water	6010C	15565
MB 410-15565/1-A	Method Blank	Total Recoverable	Water	6010C	15565
LCS 410-15565/2-A	Lab Control Sample	Total Recoverable	Water	6010C	15565

Prep Batch: 17900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5078-1	CD-12-W-45.0-20200619	Dissolved	Water	Non-Digest Prep	15586
MB 410-17900/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-17900/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	

Analysis Batch: 19068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5078-1	CD-12-W-45.0-20200619	Dissolved	Water	6020A	17900
MB 410-17900/1-A	Method Blank	Total/NA	Water	6020A	17900
LCS 410-17900/2-A	Lab Control Sample	Total/NA	Water	6020A	17900

General Chemistry

Analysis Batch: 15813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5078-1	CD-12-W-45.0-20200619	Total/NA	Water	SM 4500 S2 D	
MB 410-15813/1	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 410-15813/13	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-5078-1

General Chemistry

Analysis Batch: 16771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5078-1	CD-12-W-45.0-20200619	Total/NA	Water	SM 2320B	
MB 410-16771/106	Method Blank	Total/NA	Water	SM 2320B	
LCS 410-16771/107	Lab Control Sample	Total/NA	Water	SM 2320B	

Prep Batch: 17577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5078-1	CD-12-W-45.0-20200619	Total/NA	Water	SM 4500 NH3 B	
MB 410-17577/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 B	
LCS 410-17577/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 B	
LCSD 410-17577/3-A	Lab Control Sample Dup	Total/NA	Water	SM 4500 NH3 B	

Analysis Batch: 17643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5078-1	CD-12-W-45.0-20200619	Total/NA	Water	SM4500 NH3	17577
MB 410-17577/1-A	Method Blank	Total/NA	Water	SM4500 NH3	17577
LCS 410-17577/2-A	Lab Control Sample	Total/NA	Water	SM4500 NH3	17577
LCSD 410-17577/3-A	Lab Control Sample Dup	Total/NA	Water	SM4500 NH3	17577

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-5078-1

Client Sample ID: CD-12-W-45.0-20200619

Date Collected: 06/19/20 10:00
Date Received: 06/19/20 16:15

Lab Sample ID: 410-5078-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	19153	07/03/20 01:06	NSK7	ELLE
Total/NA	Prep	3510C			17203	06/26/20 18:10	DFX4	ELLE
Total/NA	Analysis	8270D		1	18742	07/02/20 05:20	LW6J	ELLE
Total/NA	Analysis	8015D		1	19123	07/02/20 22:18	JJT8	ELLE
Total/NA	Prep	RSK-175			17098	06/26/20 10:12	IYN5	ELLE
Total/NA	Analysis	RSK-175		1	17102	06/26/20 14:29	IYN5	ELLE
Total/NA	Prep	RSK-175	DL		17530	06/29/20 08:52	IYN5	ELLE
Total/NA	Analysis	RSK-175	DL	50	17537	06/29/20 16:51	IYN5	ELLE
Total/NA	Prep	8011			15541	06/22/20 22:03	K2IL	ELLE
Total/NA	Analysis	8011		1	17189	06/27/20 08:31	AC3T	ELLE
Total/NA	Prep	3510C			15558	06/23/20 00:47	UKL2	ELLE
Total/NA	Analysis	8015C		1	17081	06/25/20 11:43	YHQ2	ELLE
Total/NA	Analysis	Total TPH		1	28450	07/31/20 09:17	KP5X	ELLE
Total/NA	Analysis	300.0		5	18580	06/29/20 16:04	GJ35	ELLE
Total/NA	Analysis	300.0		5	18581	06/29/20 16:04	GJ35	ELLE
Total/NA	Analysis	300.0		5	23198	07/16/20 13:30	UCLW	ELLE
Total Recoverable	Prep	3005A			15565	06/23/20 03:29	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	15953	06/23/20 17:59	UCIG	ELLE
Dissolved	Filtration	Filtration			15586	06/23/20 05:40	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			17900	06/30/20 06:49	UJL8	ELLE
Dissolved	Analysis	6020A		1	19068	07/02/20 09:14	BMB	ELLE
Total/NA	Analysis	SM 2320B		1	16771	06/25/20 09:24	JB	ELLE
Total/NA	Analysis	SM 4500 S2 D		1	15813	06/23/20 10:08	P8DZ	ELLE
Total/NA	Prep	SM 4500 NH3 B			17577	06/29/20 09:57	UYB0	ELLE
Total/NA	Analysis	SM4500 NH3		1	17643	06/29/20 12:36	UYB0	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp. Job ID: 410-5078-1
Project/Site: PHL Penrose Drilling Sampling

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015C	3510C	Water	>C12-C22 (1C)
8015C	3510C	Water	>C22-C44 (1C)
Total TPH		Water	Total Reported TPH

Method Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-5078-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
8015D	Gasoline Range Organics (GRO) (GC)	SW846	ELLE
RSK-175	Dissolved Gases (GC)	RSK	ELLE
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	ELLE
Total TPH	Total TPH	None	ELLE
300.0	Anions, Ion Chromatography	MCAWW	ELLE
6010C	Metals (ICP)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
SM 2320B	Alkalinity	SM	ELLE
SM 4500 S2 D	Sulfide, Total	SM	ELLE
SM4500 NH3	Ammonia	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
8011	Microextraction	SW846	ELLE
Filtration	Sample Filtration	None	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE
SM 4500 NH3 B	Distillation, Ammonia	SM	ELLE

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-5078-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-5078-1	CD-12-W-45.0-20200619	Water	06/19/20 10:00	06/19/20 16:15	

Environmental Analysis Request and Chain of Custody

eurofins | Lancaster Laboratories Environmental

Acct. # _____

410-5078 Chain of Custody

se only _____

COC # 608750

Client Information

Client: Evergreen c/o Stantec	Acct. #: 166657
Project Name/#: PHL Penrose Drilling Sampling	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 2134026002
Sampler: Dane Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

For Lab Use Only
FSC: _____
SCR#: _____

Sample Identification	Collected Date	Collected Time	Grab	Composite	Matrix: Soil/Sediment	Water	Tissue	Ground	Potable	Surface	NPDES	Other:	Total # of Containers	Custom TPH w/ Ranges	TPH GRO 8260/moisture	Metal 6010/Lead (dissolved water) Total 6010B	Sulfide	Chloride, Nitrate Nitrogen, Sulfate	Volatile Headspace Hydrocarbons	Total Alkalinity to 4.5	*Short List Yes (including TBA) + EDB 8011	*Short List SVOCs 8270	Ammonia Nitrogen
CD-12-W-45.0-20200619	6/19/20	1000	X			X							16	X	X	X	X	X	X	X	X	X	X

Analysis Requested — Preservation and Filtration Codes: (DH) H/O | N | O | H | H/O | S

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks

*refer to Evergreen Petroleum Short List for list of analytes

Turnaround Time (TAT) Requested (please circle)

~~Standard~~ Rush

(Rush TAT is ~~subject to~~ laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: andrew.klingbeil@stantec

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)
Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13
NYSDEC Category A or B | MA MCP | CT RCP

Relinquished by	Date	Time	Received by	Date	Time
Dane	6/19/20	1145		6.19.20	1145
	6.19.20	1705		Date	Time
	Date	Time		Date	Time
	Date	Time		Date	Time
	Date	Time	W Mathus	6/19/20	1615

EDD Required? (Yes) No
If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:
UPS _____ FedEx _____ Other _____

Temperature upon receipt 2.9 °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT https://www.eurofinsus.com/coc

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

KAM 7044 0919

Login Sample Receipt Checklist

Client: Stantec Consulting Corp. Job Number: 410-5078-1

Login Number: 5078 **List Source: Eurofins Lancaster Laboratories Env**
List Number: 1
Creator: Jeremiah, Cory T

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-5534-1
Client Project/Site: PHL Penrose Drilling Sampling
Revision: 1

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Andrew Klingbeil

Authorized for release by:
11/5/2020 4:48:59 PM

Amek Carter, Project Manager
(717)556-7252
amekcarter@eurofinsus.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
11/5/2020 4:48:59 PM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 6
Detection Summary 8
Client Sample Results 10
Surrogate Summary 15
QC Sample Results 18
QC Association Summary 32
Lab Chronicle 37
Certification Summary 39
Method Summary 40
Sample Summary 41
Chain of Custody 42
Receipt Checklists 44

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-5534-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
^c	CCV Recovery is outside acceptance limits.
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*3	ISTD response or retention time outside acceptable limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
XL	Surrogate recovery is below control limits

GC VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
XH	Surrogate recovery is above control limits
XL	Surrogate recovery is below control limits

HPLC/IC

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
*H	LCS and/or LCSD recovery above control limits.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-5534-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-5534-1

Revision
The report being provided is a revision of the original report sent on 9/3/2020. The report (revision 1) is being revised due to: Analyte List Change - Added TBA.

Receipt
The samples were received on 6/24/2020 4:15 PM; the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.3°C

Receipt Exceptions
GC/MS VOA
Method 8260C: The continuing calibration verification (CCV) associated with batch 410-19108 recovered above the upper control limit for t-Butyl alcohol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: CD-10-S-3.0-20200622 (410-5534-1).

Method 8260C: Reanalysis of the following sample was performed outside of the analytical holding time: CD-10-S-38.0-20200623 (410-5534-2).

Method 8260C: The following sample CD-10-S-3.0-20200622 (410-5534-1) had matrix interference with an internal standard t-Butyl alcohol-d10, therefore the GRO result is biased low.

Method 8260C: Reanalysis of the following sample was performed outside of the analytical holding time due to laboratory error : CD-10-S-3.0-20200622 (410-5534-1).

Method 8260C_UST: The method requirement for no headspace was not met. The following volatile sample was analyzed with headspace in the sample container(s): CD-10-W-38.0-20200623 (410-5534-3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270D: Surrogate recovery for the following sample was outside control limits: CD-10-W-38.0-20200623 (410-5534-3). Re-extraction and re-analysis was performed and surrogate recovery was outside control limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
Method RSK_175: The method requirement for no headspace was not met. The following RSK_175 sample was analyzed with significant headspace in the sample container(s): CD-10-W-38.0-20200623 (410-5534-3). Significant headspace is defined as a bubble greater than 6 mm in diameter.The reported result for Methane exceeded the calibration range of the instrument. The sample was analyzed at a dilution outside the method required holding time. The result for Methane in the dilution was 7,300 ug/L.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
Method 8015C_DRO: Chlorobenzene surrogate recovery for the following sample in preparation batch 410-18210 and analytical batch 410-19868 was outside control limits: CD-10-W-38.0-20200623 (410-5534-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015C_DRO: Chlorobenzene Surrogate recovery was outside control limits for the following sample: CD-10-S-38.0-20200623 (410-5534-2). Due to method issues during analysis, re-extract was not submitted. Re-extraction would be performed 14 days past hold.

Job ID: 410-5534-1 (Continued)

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Conti

Method 8015C_DRO: Surrogate recovery for the following sample was below the lower control limit: CD-10-S-3.0-20200622 (410-5534-1). The sample duplicate and matrix spike for this sample demonstrated similar surrogate recoveries, the results are attributed to sample matrix effects.

Method 8015C_DRO: Chlorobenzene surrogate recovery for the following sample in preparation batch 410-17277 and analytical batch 410-18172 was below the lower control limit: CD-10-S-38.0-20200623 (410-5534-2). Sample was re-extracted outside the method required holding time on prep batch 410-23767 and analytical batch 410-25971 and the surrogate was within control limits. Data is reported from the first trial.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
Method 6020A: The laboratory control sample (LCS) for preparation batch 410-16520 and 410-17900 and analytical batch 410-19068 recovered outside control limits for the following analytes: Lead. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-5534-1

Client Sample ID: CD-10-S-3.0-20200622 — Lab Sample ID: 410-5534-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	160	J	910	110	ug/Kg	50	☼	8260C	Total/NA
C4-C12-TPH-GRO - DL	17000	J H	20000	8000	ug/Kg	50	☼	8260C	Total/NA
Anthracene	690		22	4.4	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	1100		22	8.8	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	1900		22	4.4	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	1100		22	4.4	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	1200		22	4.4	ug/Kg	1	☼	8270D	Total/NA
Chrysene	1400		22	4.4	ug/Kg	1	☼	8270D	Total/NA
Fluorene	300		22	4.4	ug/Kg	1	☼	8270D	Total/NA
Naphthalene	2500		22	8.8	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	1800		22	4.4	ug/Kg	1	☼	8270D	Total/NA
Pyrene	1100		22	4.4	ug/Kg	1	☼	8270D	Total/NA
>C12-C22 (1C)	110		16	6.6	mg/Kg	1	☼	8015C	Total/NA
>C22-C44 (1C)	78		16	6.6	mg/Kg	1	☼	8015C	Total/NA
Total Reported TPH	190		0.27	0.098	mg/Kg	1	☼	Total TPH	Total/NA

Client Sample ID: CD-10-S-38.0-20200623 — Lab Sample ID: 410-5534-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	120		4.7	0.38	ug/Kg	1	☼	8260C	Total/NA
1,3,5-Trimethylbenzene	17		4.7	0.47	ug/Kg	1	☼	8260C	Total/NA
Toluene	100		4.7	0.57	ug/Kg	1	☼	8260C	Total/NA
Benzene	140		4.7	0.47	ug/Kg	1	☼	8260C	Total/NA
Naphthalene	42		4.7	1.9	ug/Kg	1	☼	8260C	Total/NA
1,2,4-Trimethylbenzene	44		4.7	0.47	ug/Kg	1	☼	8260C	Total/NA
Isopropylbenzene	9.8		4.7	0.38	ug/Kg	1	☼	8260C	Total/NA
Xylenes, Total	380		9.4	1.3	ug/Kg	1	☼	8260C	Total/NA
>C12-C22 (1C)	13	J	14	5.9	mg/Kg	1	☼	8015C	Total/NA
Total Reported TPH	13		0.23	0.087	mg/Kg	1	☼	Total TPH	Total/NA

Client Sample ID: CD-10-W-38.0-20200623 — Lab Sample ID: 410-5534-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	160	H	25	5.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	59	H	25	1.5	ug/L	5		8260C/UST	Total/NA
Benzene	230	H	5.0	1.0	ug/L	5		8260C/UST	Total/NA
C4-C12-TPH-GRO	14000	H	250	150	ug/L	5		8260C/UST	Total/NA
Ethylbenzene	280	H	5.0	2.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	36	H	25	1.0	ug/L	5		8260C/UST	Total/NA
Toluene	330	H	5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	1400	H	30	7.0	ug/L	5		8260C/UST	Total/NA
Anthracene	0.72		0.51	0.10	ug/L	1		8270D	Total/NA
Fluorene	2.5		0.51	0.10	ug/L	1		8270D	Total/NA
Phenanthrene	4.2		0.51	0.10	ug/L	1		8270D	Total/NA
Pyrene	0.35	J	0.51	0.10	ug/L	1		8270D	Total/NA
Naphthalene - DL	260		2.5	0.51	ug/L	5		8270D	Total/NA
Ethane (1C)	7.4		5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	7300	H	500	300	ug/L	100		RSK-175	Total/NA
>C12-C22 (1C)	19		1.9	0.72	mg/L	20		8015C	Total/NA
>C22-C44 (1C)	6.3		1.9	0.72	mg/L	20		8015C	Total/NA
Total Reported TPH	25		0.20	0.074	mg/L	1		Total TPH	Total/NA
Chloride	19		0.12	0.014	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CD-10-W-38.0-20200623 (Continued) — Lab Sample ID: 410-5534-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	0.090	J H	0.10	0.056	mg/L	1		300.0	Total/NA
Sulfate	8.9		0.60	0.35	mg/L	1		300.0	Total/NA
Calcium	42		0.20	0.096	mg/L	1		6010C	Total Recoverable
Iron	95		0.20	0.040	mg/L	1		6010C	Total Recoverable
Magnesium	20		0.10	0.040	mg/L	1		6010C	Total Recoverable
Potassium	4.2		0.50	0.20	mg/L	1		6010C	Total Recoverable
Sodium	19		1.0	0.24	mg/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	160		8.0	8.0	mg/L	1		SM 2320B	Total/NA
Ammonia-N	0.95	J	1.1	0.36	mg/L	1		SM4500 NH3	Total/NA

Client Sample ID: TB-20200623 — Lab Sample ID: 410-5534-4

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: CD-10-S-3.0-20200622

Date Collected: 06/22/20 14:30
Date Received: 06/24/20 16:15

Lab Sample ID: 410-5534-1

Matrix: Solid
Percent Solids: 75.2

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		910	72	ug/Kg	☼	06/26/20 11:12	07/03/20 03:57	50
1,3,5-Trimethylbenzene	ND		910	91	ug/Kg	☼	06/26/20 11:12	07/03/20 03:57	50
Toluene	**160**	**J**	910	110	ug/Kg	☼	06/26/20 11:12	07/03/20 03:57	50
Methyl tertiary butyl ether	ND		910	91	ug/Kg	☼	06/26/20 11:12	07/03/20 03:57	50
Benzene	ND		910	91	ug/Kg	☼	06/26/20 11:12	07/03/20 03:57	50
1,2,4-Trimethylbenzene	ND		910	91	ug/Kg	☼	06/26/20 11:12	07/03/20 03:57	50
Isopropylbenzene	ND		910	72	ug/Kg	☼	06/26/20 11:12	07/03/20 03:57	50
1,2-Dibromoethane	ND		910	72	ug/Kg	☼	06/26/20 11:12	07/03/20 03:57	50
1,2-Dichloroethane	ND		910	110	ug/Kg	☼	06/26/20 11:12	07/03/20 03:57	50
Xylenes, Total	ND		1800	250	ug/Kg	☼	06/26/20 11:12	07/03/20 03:57	50
t-Butyl alcohol	ND	^c	18000	2700	ug/Kg	☼	06/26/20 11:12	07/03/20 03:57	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*118*		*54 - 135*	*06/26/20 11:12*	*07/03/20 03:57*	*50*
4-Bromofluorobenzene (Surr)	*65*		*50 - 131*	*06/26/20 11:12*	*07/03/20 03:57*	*50*
Dibromofluoromethane (Surr)	*109*		*50 - 141*	*06/26/20 11:12*	*07/03/20 03:57*	*50*
Toluene-d8 (Surr)	*96*		*52 - 141*	*06/26/20 11:12*	*07/03/20 03:57*	*50*

Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C4-C12-TPH-GRO	**17000**	**J H**	20000	8000	ug/Kg	☼	06/26/20 11:12	07/21/20 19:01	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*119*		*54 - 135*	*06/26/20 11:12*	*07/21/20 19:01*	*50*
4-Bromofluorobenzene (Surr)	*50*		*50 - 131*	*06/26/20 11:12*	*07/21/20 19:01*	*50*
Dibromofluoromethane (Surr)	*109*		*50 - 141*	*06/26/20 11:12*	*07/21/20 19:01*	*50*
Toluene-d8 (Surr)	*89*		*52 - 141*	*06/26/20 11:12*	*07/21/20 19:01*	*50*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**690**		22	4.4	ug/Kg	☼	06/27/20 10:17	06/29/20 11:47	1
Benzo[a]anthracene	**1100**		22	8.8	ug/Kg	☼	06/27/20 10:17	06/29/20 11:47	1
Benzo[a]pyrene	**1900**		22	4.4	ug/Kg	☼	06/27/20 10:17	06/29/20 11:47	1
Benzo[b]fluoranthene	**1100**		22	4.4	ug/Kg	☼	06/27/20 10:17	06/29/20 11:47	1
Benzo[g,h,i]perylene	**1200**		22	4.4	ug/Kg	☼	06/27/20 10:17	06/29/20 11:47	1
Chrysene	**1400**		22	4.4	ug/Kg	☼	06/27/20 10:17	06/29/20 11:47	1
Fluorene	**300**		22	4.4	ug/Kg	☼	06/27/20 10:17	06/29/20 11:47	1
Naphthalene	**2500**		22	8.8	ug/Kg	☼	06/27/20 10:17	06/29/20 11:47	1
Phenanthrene	**1800**		22	4.4	ug/Kg	☼	06/27/20 10:17	06/29/20 11:47	1
Pyrene	**1100**		22	4.4	ug/Kg	☼	06/27/20 10:17	06/29/20 11:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14 (Surr)	*62*		*35 - 135*	*06/27/20 10:17*	*06/29/20 11:47*	*1*
Nitrobenzene-d5 (Surr)	*51*		*23 - 115*	*06/27/20 10:17*	*06/29/20 11:47*	*1*
2-Fluorobiphenyl (Surr)	*42*		*34 - 117*	*06/27/20 10:17*	*06/29/20 11:47*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	**110**		16	6.6	mg/Kg	☼	06/27/20 08:22	06/29/20 13:18	1
>C22-C44 (1C)	**78**		16	6.6	mg/Kg	☼	06/27/20 08:22	06/29/20 13:18	1

Client Sample ID: CD-10-S-3.0-20200622

Lab Sample ID: 410-5534-1

Date Collected: 06/22/20 14:30
Matrix: Solid
Date Received: 06/24/20 16:15
Percent Solids: 75.2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*0.5*	*XL*	*54 - 137*	*06/27/20 08:22*	*06/29/20 13:18*	*1*
o- terphenyl (Surr) (1C)	*4*	*XL*	*42 - 143*	*06/27/20 08:22*	*06/29/20 13:18*	*1*

Method: Total TPH - Total TPH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Reported TPH	**190**		0.27	0.098	mg/Kg	☼		07/31/20 09:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**24.8**		1.0	1.0	%			06/24/20 22:58	1

Client Sample ID: CD-10-S-38.0-20200623

Lab Sample ID: 410-5534-2

Date Collected: 06/23/20 12:20
Matrix: Solid
Date Received: 06/24/20 16:15
Percent Solids: 85.2

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**120**		4.7	0.38	ug/Kg	☼	06/26/20 11:13	07/02/20 15:48	1
1,3,5-Trimethylbenzene	**17**		4.7	0.47	ug/Kg	☼	06/26/20 11:13	07/02/20 15:48	1
Toluene	**100**		4.7	0.57	ug/Kg	☼	06/26/20 11:13	07/02/20 15:48	1
Methyl tertiary butyl ether	ND		4.7	0.47	ug/Kg	☼	06/26/20 11:13	07/02/20 15:48	1
Benzene	**140**		4.7	0.47	ug/Kg	☼	06/26/20 11:13	07/02/20 15:48	1
Naphthalene	**42**		4.7	1.9	ug/Kg	☼	06/26/20 11:13	07/02/20 15:48	1
1,2,4-Trimethylbenzene	**44**		4.7	0.47	ug/Kg	☼	06/26/20 11:13	07/02/20 15:48	1
Isopropylbenzene	**9.8**		4.7	0.38	ug/Kg	☼	06/26/20 11:13	07/02/20 15:48	1
1,2-Dibromoethane	ND		4.7	0.38	ug/Kg	☼	06/26/20 11:13	07/02/20 15:48	1
1,2-Dichloroethane	ND		4.7	0.57	ug/Kg	☼	06/26/20 11:13	07/02/20 15:48	1
Xylenes, Total	**380**		9.4	1.3	ug/Kg	☼	06/26/20 11:13	07/02/20 15:48	1
t-Butyl alcohol	ND		94	14	ug/Kg	☼	06/26/20 11:13	07/02/20 15:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*54 - 135*	*06/26/20 11:13*	*07/02/20 15:48*	*1*
4-Bromofluorobenzene (Surr)	*97*		*50 - 131*	*06/26/20 11:13*	*07/02/20 15:48*	*1*
Dibromofluoromethane (Surr)	*98*		*50 - 141*	*06/26/20 11:13*	*07/02/20 15:48*	*1*
Toluene-d8 (Surr)	*102*		*52 - 141*	*06/26/20 11:13*	*07/02/20 15:48*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		19	3.9	ug/Kg	☼	06/27/20 10:17	06/29/20 13:23	1
Benzo[a]anthracene	ND		19	7.8	ug/Kg	☼	06/27/20 10:17	06/29/20 13:23	1
Benzo[a]pyrene	ND		19	3.9	ug/Kg	☼	06/27/20 10:17	06/29/20 13:23	1
Benzo[b]fluoranthene	ND		19	3.9	ug/Kg	☼	06/27/20 10:17	06/29/20 13:23	1
Benzo[g,h,i]perylene	ND		19	3.9	ug/Kg	☼	06/27/20 10:17	06/29/20 13:23	1
Chrysene	ND		19	3.9	ug/Kg	☼	06/27/20 10:17	06/29/20 13:23	1
Fluorene	ND		19	3.9	ug/Kg	☼	06/27/20 10:17	06/29/20 13:23	1
Naphthalene	ND		19	7.8	ug/Kg	☼	06/27/20 10:17	06/29/20 13:23	1
Phenanthrene	ND		19	3.9	ug/Kg	☼	06/27/20 10:17	06/29/20 13:23	1
Pyrene	ND		19	3.9	ug/Kg	☼	06/27/20 10:17	06/29/20 13:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14 (Surr)	*98*		*35 - 135*	*06/27/20 10:17*	*06/29/20 13:23*	*1*
Nitrobenzene-d5 (Surr)	*63*		*23 - 115*	*06/27/20 10:17*	*06/29/20 13:23*	*1*

Client Sample ID: CD-10-S-38.0-20200623

Lab Sample ID: 410-5534-2
Date Collected: 06/23/20 12:20
Matrix: Solid
Date Received: 06/24/20 16:15
Percent Solids: 85.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*69*		*34 - 117*	*06/27/20 10:17*	*06/29/20 13:23*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	**13**	**J**	14	5.9	mg/Kg	☼	06/27/20 08:22	06/29/20 12:57	1
>C22-C44 (1C)	ND		14	5.9	mg/Kg	☼	06/27/20 08:22	06/29/20 12:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*44*	*XL*	*54 - 137*	*06/27/20 08:22*	*06/29/20 12:57*	*1*
o- terphenyl (Surr) (1C)	*70*		*42 - 143*	*06/27/20 08:22*	*06/29/20 12:57*	*1*

Method: Total TPH - Total TPH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Reported TPH	**13**		0.23	0.087	mg/Kg	☼		07/31/20 09:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**14.8**		1.0	1.0	%			06/24/20 22:58	1

Client Sample ID: CD-10-W-38.0-20200623

Lab Sample ID: 410-5534-3
Date Collected: 06/23/20 14:45
Matrix: Water
Date Received: 06/24/20 16:15

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**160**	**H**	25	5.0	ug/L			07/10/20 15:12	5
1,2-Dichloroethane	ND	H	5.0	1.5	ug/L			07/10/20 15:12	5
1,3,5-Trimethylbenzene	**59**	**H**	25	1.5	ug/L			07/10/20 15:12	5
Benzene	**230**	**H**	5.0	1.0	ug/L			07/10/20 15:12	5
C4-C12-TPH-GRO	**14000**	**H**	250	150	ug/L			07/10/20 15:12	5
Ethylbenzene	**280**	**H**	5.0	2.0	ug/L			07/10/20 15:12	5
Isopropylbenzene	**36**	**H**	25	1.0	ug/L			07/10/20 15:12	5
Methyl tertiary butyl ether	ND	H	5.0	1.0	ug/L			07/10/20 15:12	5
Toluene	**330**	**H**	5.0	1.0	ug/L			07/10/20 15:12	5
Xylenes, Total	**1400**	**H**	30	7.0	ug/L			07/10/20 15:12	5
2-Methyl-2-propanol	ND	H	250	60	ug/L			07/10/20 15:12	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*80 - 120*		*07/10/20 15:12*	*5*
4-Bromofluorobenzene (Surr)	*90*		*80 - 120*		*07/10/20 15:12*	*5*
Dibromofluoromethane (Surr)	*108*		*80 - 120*		*07/10/20 15:12*	*5*
Toluene-d8 (Surr)	*95*		*80 - 120*		*07/10/20 15:12*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**0.72**		0.51	0.10	ug/L		06/25/20 18:00	06/28/20 12:19	1
Benzo[a]anthracene	ND		0.51	0.10	ug/L		06/25/20 18:00	06/28/20 12:19	1
Benzo[a]pyrene	ND	*3	0.51	0.10	ug/L		06/25/20 18:00	06/28/20 12:19	1
Benzo[b]fluoranthene	ND	*3	0.51	0.10	ug/L		06/25/20 18:00	06/28/20 12:19	1
Benzo[g,h,i]perylene	ND	*3	0.51	0.10	ug/L		06/25/20 18:00	06/28/20 12:19	1
Chrysene	ND		0.51	0.10	ug/L		06/25/20 18:00	06/28/20 12:19	1

Client Sample ID: CD-10-W-38.0-20200623

Date Collected: 06/23/20 14:45
Date Received: 06/24/20 16:15

Lab Sample ID: 410-5534-3

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	**2.5**		0.51	0.10	ug/L		06/25/20 18:00	06/28/20 12:19	1
Phenanthrene	**4.2**		0.51	0.10	ug/L		06/25/20 18:00	06/28/20 12:19	1
Pyrene	**0.35**	**J**	0.51	0.10	ug/L		06/25/20 18:00	06/28/20 12:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14 (Surr)	*59*		*34 - 128*	*06/25/20 18:00*	*06/28/20 12:19*	*1*
Nitrobenzene-d5 (Surr)	*18*	*XL*	*38 - 113*	*06/25/20 18:00*	*06/28/20 12:19*	*1*
2-Fluorobiphenyl (Surr)	*40*	*XL*	*44 - 102*	*06/25/20 18:00*	*06/28/20 12:19*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**260**		2.5	0.51	ug/L		06/25/20 18:00	07/06/20 14:50	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14 (Surr)	*66*		*34 - 128*	*06/25/20 18:00*	*07/06/20 14:50*	*5*
Nitrobenzene-d5 (Surr)	*0*	*XL*	*38 - 113*	*06/25/20 18:00*	*07/06/20 14:50*	*5*
2-Fluorobiphenyl (Surr)	*68*		*44 - 102*	*06/25/20 18:00*	*07/06/20 14:50*	*5*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**7.4**		5.0	1.0	ug/L		07/07/20 13:18	07/07/20 19:11	1
Ethene (1C)	ND		5.0	1.0	ug/L		07/07/20 13:18	07/07/20 19:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*81*		*28 - 140*	*07/07/20 13:18*	*07/07/20 19:11*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**7300**	**H**	500	300	ug/L		07/08/20 10:09	07/09/20 09:59	100

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0097	ug/L		06/30/20 23:11	07/01/20 21:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*125*		*46 - 136*	*06/30/20 23:11*	*07/01/20 21:30*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*101*		*46 - 136*	*06/30/20 23:11*	*07/01/20 21:30*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	**19**		1.9	0.72	mg/L		06/30/20 16:40	07/06/20 15:00	20
>C22-C44 (1C)	**6.3**		1.9	0.72	mg/L		06/30/20 16:40	07/06/20 15:00	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*294*	*XH*	*21 - 116*	*06/30/20 16:40*	*07/06/20 15:00*	*20*
o- terphenyl (Surr) (1C)	*67*		*51 - 126*	*06/30/20 16:40*	*07/06/20 15:00*	*20*

Method: Total TPH - Total TPH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Reported TPH	**25**		0.20	0.074	mg/L			07/31/20 09:17	1

Client Sample ID: CD-10-W-38.0-20200623

Lab Sample ID: 410-5534-3

Date Collected: 06/23/20 14:45

Matrix: Water

Date Received: 06/24/20 16:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19		0.12	0.014	mg/L			07/02/20 12:42	1
Nitrate as N	0.090	J H	0.10	0.056	mg/L			07/02/20 12:42	1
Sulfate	8.9		0.60	0.35	mg/L			07/02/20 12:42	1

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	42		0.20	0.096	mg/L		06/25/20 02:34	06/25/20 16:56	1
Iron	95		0.20	0.040	mg/L		06/25/20 02:34	06/25/20 16:56	1
Magnesium	20		0.10	0.040	mg/L		06/25/20 02:34	06/25/20 16:56	1
Potassium	4.2		0.50	0.20	mg/L		06/25/20 02:34	06/25/20 16:56	1
Sodium	19		1.0	0.24	mg/L		06/25/20 02:34	06/25/20 16:56	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND	*H	0.52	0.073	ug/L		06/30/20 06:49	07/02/20 09:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	160		8.0	8.0	mg/L			06/26/20 03:17	1
Sulfide	ND		0.30	0.10	mg/L			06/26/20 12:27	1
Ammonia-N	0.95	J	1.1	0.36	mg/L		06/29/20 09:57	06/29/20 12:36	1

Client Sample ID: TB-20200623

Lab Sample ID: 410-5534-4

Date Collected: 06/11/20 00:00

Matrix: Water

Date Received: 06/24/20 16:15

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND	H	5.0	1.0	ug/L			06/26/20 13:59	1
1,2-Dichloroethane	ND	H	1.0	0.30	ug/L			06/26/20 13:59	1
1,3,5-Trimethylbenzene	ND	H	5.0	0.30	ug/L			06/26/20 13:59	1
Benzene	ND	H	1.0	0.20	ug/L			06/26/20 13:59	1
C4-C12-TPH-GRO	ND	H	50	29	ug/L			06/26/20 13:59	1
Ethylbenzene	ND	H	1.0	0.40	ug/L			06/26/20 13:59	1
Isopropylbenzene	ND	H	5.0	0.20	ug/L			06/26/20 13:59	1
Methyl tertiary butyl ether	ND	H	1.0	0.20	ug/L			06/26/20 13:59	1
Toluene	ND	H	1.0	0.20	ug/L			06/26/20 13:59	1
Xylenes, Total	ND	H	6.0	1.4	ug/L			06/26/20 13:59	1
2-Methyl-2-propanol	ND	H	50	12	ug/L			06/26/20 13:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*80 - 120*		*06/26/20 13:59*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*06/26/20 13:59*	*1*
Dibromofluoromethane (Surr)	*100*		*80 - 120*		*06/26/20 13:59*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*06/26/20 13:59*	*1*

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-5534-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(54-135)	(50-131)	(50-141)	(52-141)
410-5534-1	CD-10-S-3.0-20200622	118	65	109	96
410-5534-1 - DL	CD-10-S-3.0-20200622	119	50	109	89
410-5534-2	CD-10-S-38.0-20200623	102	97	98	102
LCS 410-19108/5	Lab Control Sample	100	101	95	101
LCS 410-24739/8	Lab Control Sample	95	93	88	94
LCSD 410-19108/6	Lab Control Sample Dup	101	102	96	102
LCSD 410-24739/9	Lab Control Sample Dup	96	93	88	95
MB 410-19108/8	Method Blank	99	99	91	100
MB 410-24739/11	Method Blank	100	96	92	98

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-5534-3	CD-10-W-38.0-20200623	95	90	108	95
410-5534-4	TB-20200623	87	94	100	97
LCS 410-17042/26	Lab Control Sample	88	94	96	99
LCS 410-21187/6	Lab Control Sample	84	95	103	95
LCS 410-21187/8	Lab Control Sample	90	94	103	97
LCSD 410-17042/27	Lab Control Sample Dup	87	95	96	99
LCSD 410-21187/7	Lab Control Sample Dup	93	115	119	104
LCSD 410-21187/9	Lab Control Sample Dup	91	99	103	96
MB 410-17042/5	Method Blank	90	94	100	97
MB 410-21187/5	Method Blank	92	104	107	88

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		TPHd14	NBZ	FBP
Lab Sample ID	Client Sample ID	(35-135)	(23-115)	(34-117)
410-5534-1	CD-10-S-3.0-20200622	62	51	42
410-5534-2	CD-10-S-38.0-20200623	98	63	69
LCS 410-17280/2-A	Lab Control Sample	92	70	81
MB 410-17280/1-A	Method Blank	99	73	82

Surrogate Legend

TPHd14 = p-Terphenyl-d14 (Surr)

NBZ = Nitrobenzene-d5 (Surr)
FBP = 2-Fluorobiphenyl (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		TPHd14	NBZ	FBP
Lab Sample ID	Client Sample ID	(34-128)	(38-113)	(44-102)
410-5534-3	CD-10-W-38.0-20200623	59	18 XL	40 XL
410-5534-3 - DL	CD-10-W-38.0-20200623	66	0 XL	68
LCS 410-16792/2-A	Lab Control Sample	93	85	81
MB 410-16792/1-A	Method Blank	92	80	62

Surrogate Legend

TPHd14 = p-Terphenyl-d14 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
FBP = 2-Fluorobiphenyl (Surr)

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		Propene1
Lab Sample ID	Client Sample ID	(28-140)
410-5534-3	CD-10-W-38.0-20200623	81
LCS 410-20004/2-A	Lab Control Sample	98
LCS 410-20389/2-A	Lab Control Sample	98
LCSD 410-20004/3-A	Lab Control Sample Dup	98
MB 410-20004/1-A	Method Blank	99
MB 410-20389/1-A	Method Blank	99

Surrogate Legend

Propene = Propene

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1122TCA1	1122TCA2
Lab Sample ID	Client Sample ID	(46-136)	(46-136)
410-5534-3	CD-10-W-38.0-20200623	125	101
LCS 410-18327/2-A	Lab Control Sample		78
LCSD 410-18327/3-A	Lab Control Sample Dup		73
MB 410-18327/1-A	Method Blank		81

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		CBNZ1	OTP1
Lab Sample ID	Client Sample ID	(54-137)	(42-143)
410-5534-1	CD-10-S-3.0-20200622	0.5 XL	4 XL
410-5534-1 DU	CD-10-S-3.0-20200622	1 XL	2 XL
410-5534-1 MS	CD-10-S-3.0-20200622	2 XL	2 XL
410-5534-2	CD-10-S-38.0-20200623	44 XL	70

Surrogate Summary

Client: Stantec Consulting Corp. Job ID: 410-5534-1
Project/Site: PHL Penrose Drilling Sampling

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		CBNZ1	OTP1
Lab Sample ID	Client Sample ID	(54-137)	(42-143)
LCS 410-17277/2-A	Lab Control Sample	70	100
MB 410-17277/1-A	Method Blank	71	93

Surrogate Legend

CBNZ = Chlorobenzene (Surr)
OTP = o- terphenyl (Surr)

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		CBNZ1	OTP1
Lab Sample ID	Client Sample ID	(21-116)	(51-126)
410-5534-3	CD-10-W-38.0-20200623	294 XH	67
LCS 410-18210/2-A	Lab Control Sample	53	87
LCSD 410-18210/3-A	Lab Control Sample Dup	52	86
MB 410-18210/1-A	Method Blank	56	75

Surrogate Legend

CBNZ = Chlorobenzene (Surr)
OTP = o- terphenyl (Surr)

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-5534-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-19108/8
Matrix: Solid
Analysis Batch: 19108

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		250	20	ug/Kg			07/02/20 22:05	50
1,3,5-Trimethylbenzene	ND		250	25	ug/Kg			07/02/20 22:05	50
Toluene	ND		250	30	ug/Kg			07/02/20 22:05	50
Methyl tertiary butyl ether	ND		250	25	ug/Kg			07/02/20 22:05	50
Benzene	ND		250	25	ug/Kg			07/02/20 22:05	50
Naphthalene	ND		250	100	ug/Kg			07/02/20 22:05	50
1,2,4-Trimethylbenzene	ND		250	25	ug/Kg			07/02/20 22:05	50
Isopropylbenzene	ND		250	20	ug/Kg			07/02/20 22:05	50
1,2-Dibromoethane	ND		250	20	ug/Kg			07/02/20 22:05	50
1,2-Dichloroethane	ND		250	30	ug/Kg			07/02/20 22:05	50
C4-C12-TPH-GRO	ND		5500	2200	ug/Kg			07/02/20 22:05	50
Xylenes, Total	ND		500	70	ug/Kg			07/02/20 22:05	50
t-Butyl alcohol	ND		5000	750	ug/Kg			07/02/20 22:05	50

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*54 - 135*		*07/02/20 22:05*	*50*
4-Bromofluorobenzene (Surr)	*99*		*50 - 131*		*07/02/20 22:05*	*50*
Dibromofluoromethane (Surr)	*91*		*50 - 141*		*07/02/20 22:05*	*50*
Toluene-d8 (Surr)	*100*		*52 - 141*		*07/02/20 22:05*	*50*

Lab Sample ID: LCS 410-19108/5
Matrix: Solid
Analysis Batch: 19108

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylbenzene			1000	1020		ug/Kg		102	78 - 120		
1,3,5-Trimethylbenzene			1000	1040		ug/Kg		104	73 - 120		
Toluene			1000	1040		ug/Kg		104	80 - 120		
Methyl tertiary butyl ether			1000	925		ug/Kg		93	72 - 120		
Benzene			1000	1030		ug/Kg		103	80 - 120		
Naphthalene			1000	863		ug/Kg		86	48 - 130		
1,2,4-Trimethylbenzene			1000	1010		ug/Kg		101	73 - 120		
Isopropylbenzene			1000	1030		ug/Kg		103	77 - 120		
1,2-Dibromoethane			1000	978		ug/Kg		98	76 - 120		
1,2-Dichloroethane			1000	967		ug/Kg		97	71 - 128		
Xylenes, Total			3000	3060		ug/Kg		102	75 - 120		
t-Butyl alcohol			10000	11500		ug/Kg		115	74 - 121		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*54 - 135*
4-Bromofluorobenzene (Surr)	*101*		*50 - 131*
Dibromofluoromethane (Surr)	*95*		*50 - 141*
Toluene-d8 (Surr)	*101*		*52 - 141*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-19108/6
Matrix: Solid
Analysis Batch: 19108

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene			1000	1040		ug/Kg		104	78 - 120	2	30
1,3,5-Trimethylbenzene			1000	1070		ug/Kg		107	73 - 120	3	30
Toluene			1000	1060		ug/Kg		106	80 - 120	1	30
Methyl tertiary butyl ether			1000	932		ug/Kg		93	72 - 120	1	30
Benzene			1000	1040		ug/Kg		104	80 - 120	1	30
Naphthalene			1000	899		ug/Kg		90	48 - 130	4	30
1,2,4-Trimethylbenzene			1000	1040		ug/Kg		104	73 - 120	2	30
Isopropylbenzene			1000	1050		ug/Kg		105	77 - 120	2	30
1,2-Dibromoethane			1000	976		ug/Kg		98	76 - 120	0	30
1,2-Dichloroethane			1000	989		ug/Kg		99	71 - 128	2	30
Xylenes, Total			3000	3090		ug/Kg		103	75 - 120	1	30
t-Butyl alcohol			10000	11700		ug/Kg		117	74 - 121	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*54 - 135*
4-Bromofluorobenzene (Surr)	*102*		*50 - 131*
Dibromofluoromethane (Surr)	*96*		*50 - 141*
Toluene-d8 (Surr)	*102*		*52 - 141*

Lab Sample ID: MB 410-24739/11
Matrix: Solid
Analysis Batch: 24739

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		250	20	ug/Kg			07/21/20 17:38	50
1,3,5-Trimethylbenzene	ND		250	25	ug/Kg			07/21/20 17:38	50
Toluene	ND		250	30	ug/Kg			07/21/20 17:38	50
Methyl tertiary butyl ether	ND		250	25	ug/Kg			07/21/20 17:38	50
Benzene	ND		250	25	ug/Kg			07/21/20 17:38	50
Naphthalene	ND		250	100	ug/Kg			07/21/20 17:38	50
1,2,4-Trimethylbenzene	ND		250	25	ug/Kg			07/21/20 17:38	50
Isopropylbenzene	ND		250	20	ug/Kg			07/21/20 17:38	50
1,2-Dibromoethane	ND		250	20	ug/Kg			07/21/20 17:38	50
1,2-Dichloroethane	ND		250	30	ug/Kg			07/21/20 17:38	50
C4-C12-TPH-GRO	ND		5500	2200	ug/Kg			07/21/20 17:38	50
Xylenes, Total	ND		500	70	ug/Kg			07/21/20 17:38	50
t-Butyl alcohol	ND		5000	750	ug/Kg			07/21/20 17:38	50

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*54 - 135*		*07/21/20 17:38*	*50*
4-Bromofluorobenzene (Surr)	*96*		*50 - 131*		*07/21/20 17:38*	*50*
Dibromofluoromethane (Surr)	*92*		*50 - 141*		*07/21/20 17:38*	*50*
Toluene-d8 (Surr)	*98*		*52 - 141*		*07/21/20 17:38*	*50*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-24739/8
Matrix: Solid
Analysis Batch: 24739

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C4-C12-TPH-GRO			50000	43500		ug/Kg		87	75 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*54 - 135*
4-Bromofluorobenzene (Surr)	*93*		*50 - 131*
Dibromofluoromethane (Surr)	*88*		*50 - 141*
Toluene-d8 (Surr)	*94*		*52 - 141*

Lab Sample ID: LCSD 410-24739/9
Matrix: Solid
Analysis Batch: 24739

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C4-C12-TPH-GRO			50000	44400		ug/Kg		89	75 - 120	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*54 - 135*
4-Bromofluorobenzene (Surr)	*93*		*50 - 131*
Dibromofluoromethane (Surr)	*88*		*50 - 141*
Toluene-d8 (Surr)	*95*		*52 - 141*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-17042/5
Matrix: Water
Analysis Batch: 17042

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			06/26/20 11:18	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			06/26/20 11:18	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			06/26/20 11:18	1
Benzene	ND		1.0	0.20	ug/L			06/26/20 11:18	1
C4-C12-TPH-GRO	ND		50	29	ug/L			06/26/20 11:18	1
Ethylbenzene	ND		1.0	0.40	ug/L			06/26/20 11:18	1
Isopropylbenzene	ND		5.0	0.20	ug/L			06/26/20 11:18	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			06/26/20 11:18	1
Toluene	ND		1.0	0.20	ug/L			06/26/20 11:18	1
Xylenes, Total	ND		6.0	1.4	ug/L			06/26/20 11:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*		*06/26/20 11:18*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*06/26/20 11:18*	*1*
Dibromofluoromethane (Surr)	*100*		*80 - 120*		*06/26/20 11:18*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*06/26/20 11:18*	*1*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-17042/26
Matrix: Water
Analysis Batch: 17042

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C4-C12-TPH-GRO			1000	998		ug/L		100	67 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*80 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*

Lab Sample ID: LCSD 410-17042/27
Matrix: Water
Analysis Batch: 17042

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C4-C12-TPH-GRO			1000	989		ug/L		99	67 - 120	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*87*		*80 - 120*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*80 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*

Lab Sample ID: MB 410-21187/5
Matrix: Water
Analysis Batch: 21187

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			07/10/20 11:02	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			07/10/20 11:02	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			07/10/20 11:02	1
Benzene	ND		1.0	0.20	ug/L			07/10/20 11:02	1
C4-C12-TPH-GRO	ND		50	29	ug/L			07/10/20 11:02	1
Ethylbenzene	ND		1.0	0.40	ug/L			07/10/20 11:02	1
Isopropylbenzene	ND		5.0	0.20	ug/L			07/10/20 11:02	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			07/10/20 11:02	1
Toluene	ND		1.0	0.20	ug/L			07/10/20 11:02	1
Xylenes, Total	ND		6.0	1.4	ug/L			07/10/20 11:02	1
2-Methyl-2-propanol	ND		50	12	ug/L			07/10/20 11:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*		*07/10/20 11:02*	*1*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*07/10/20 11:02*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 120*		*07/10/20 11:02*	*1*
Toluene-d8 (Surr)	*88*		*80 - 120*		*07/10/20 11:02*	*1*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-21187/6
Matrix: Water
Analysis Batch: 21187

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2,4-Trimethylbenzene			20.0	18.2		ug/L		91	75 - 120		
1,2-Dichloroethane			20.0	16.9		ug/L		84	73 - 124		
1,3,5-Trimethylbenzene			20.0	17.7		ug/L		88	75 - 120		
Benzene			20.0	19.1		ug/L		96	80 - 120		
Ethylbenzene			20.0	18.7		ug/L		93	80 - 120		
Isopropylbenzene			20.0	18.0		ug/L		90	80 - 120		
Methyl tertiary butyl ether			20.0	17.4		ug/L		87	69 - 122		
Naphthalene			20.0	15.7		ug/L		79	53 - 124		
Toluene			20.0	18.3		ug/L		91	80 - 120		
Xylenes, Total			60.0	55.0		ug/L		92	80 - 120		
2-Methyl-2-propanol			200	179		ug/L		89	60 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*84*		*80 - 120*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*80 - 120*
Toluene-d8 (Surr)	*95*		*80 - 120*

Lab Sample ID: LCS 410-21187/8
Matrix: Water
Analysis Batch: 21187

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C4-C12-TPH-GRO			1000	889		ug/L		89	67 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*80 - 120*
Toluene-d8 (Surr)	*97*		*80 - 120*

Lab Sample ID: LCSD 410-21187/7
Matrix: Water
Analysis Batch: 21187

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene			20.0	16.6		ug/L		83	75 - 120	9	30
1,2-Dichloroethane			20.0	17.4		ug/L		87	73 - 124	3	30
1,3,5-Trimethylbenzene			20.0	16.1		ug/L		80	75 - 120	10	30
Benzene			20.0	19.7		ug/L		99	80 - 120	3	30
Ethylbenzene			20.0	19.0		ug/L		95	80 - 120	2	30
Isopropylbenzene			20.0	19.8		ug/L		99	80 - 120	9	30
Methyl tertiary butyl ether			20.0	18.5		ug/L		92	69 - 122	6	30
Naphthalene			20.0	13.4		ug/L		67	53 - 124	16	30
Toluene			20.0	17.9		ug/L		90	80 - 120	2	30
Xylenes, Total			60.0	57.5		ug/L		96	80 - 120	4	30
2-Methyl-2-propanol			200	159		ug/L		80	60 - 130	11	30

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-21187/7
Matrix: Water
Analysis Batch: 21187

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*80 - 120*
4-Bromofluorobenzene (Surr)	*115*		*80 - 120*
Dibromofluoromethane (Surr)	*119*		*80 - 120*
Toluene-d8 (Surr)	*104*		*80 - 120*

Lab Sample ID: LCSD 410-21187/9
Matrix: Water
Analysis Batch: 21187

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C4-C12-TPH-GRO			1000	962		ug/L		96	67 - 120	8	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*91*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*80 - 120*
Toluene-d8 (Surr)	*96*		*80 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-16792/1-A
Matrix: Water
Analysis Batch: 17365

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 16792

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		06/25/20 18:00	06/28/20 11:22	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		06/25/20 18:00	06/28/20 11:22	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		06/25/20 18:00	06/28/20 11:22	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		06/25/20 18:00	06/28/20 11:22	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		06/25/20 18:00	06/28/20 11:22	1
Chrysene	ND		0.50	0.10	ug/L		06/25/20 18:00	06/28/20 11:22	1
Fluorene	ND		0.50	0.10	ug/L		06/25/20 18:00	06/28/20 11:22	1
Naphthalene	ND		0.50	0.10	ug/L		06/25/20 18:00	06/28/20 11:22	1
Phenanthrene	ND		0.50	0.10	ug/L		06/25/20 18:00	06/28/20 11:22	1
Pyrene	ND		0.50	0.10	ug/L		06/25/20 18:00	06/28/20 11:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14 (Surr)	*92*		*34 - 128*	*06/25/20 18:00*	*06/28/20 11:22*	*1*
Nitrobenzene-d5 (Surr)	*80*		*38 - 113*	*06/25/20 18:00*	*06/28/20 11:22*	*1*
2-Fluorobiphenyl (Surr)	*62*		*44 - 102*	*06/25/20 18:00*	*06/28/20 11:22*	*1*

Lab Sample ID: LCS 410-16792/2-A
Matrix: Water
Analysis Batch: 17365

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 16792

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Anthracene			50.1	48.3		ug/L		96	67 - 116		
Benzo[a]anthracene			50.0	50.1		ug/L		100	68 - 123		

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-16792/2-A
Matrix: Water
Analysis Batch: 17365

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 16792

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]pyrene	50.2	49.6		ug/L		99	71 - 117
Benzo[b]fluoranthene	50.1	53.2		ug/L		106	69 - 121
Benzo[g,h,i]perylene	50.1	48.6		ug/L		97	60 - 119
Chrysene	50.0	47.6		ug/L		95	65 - 121
Fluorene	50.1	50.7		ug/L		101	56 - 115
Naphthalene	50.4	42.2		ug/L		84	51 - 102
Phenanthrene	50.2	49.5		ug/L		99	65 - 113
Pyrene	50.4	48.3		ug/L		96	65 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
p-Terphenyl-d14 (Surr)	*93*		*34 - 128*
Nitrobenzene-d5 (Surr)	*85*		*38 - 113*
2-Fluorobiphenyl (Surr)	*81*		*44 - 102*

Lab Sample ID: MB 410-17280/1-A
Matrix: Solid
Analysis Batch: 17459

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17280

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		17	3.3	ug/Kg		06/27/20 10:17	06/29/20 09:48	1
Benzo[a]anthracene	ND		17	6.7	ug/Kg		06/27/20 10:17	06/29/20 09:48	1
Benzo[a]pyrene	ND		17	3.3	ug/Kg		06/27/20 10:17	06/29/20 09:48	1
Benzo[b]fluoranthene	ND		17	3.3	ug/Kg		06/27/20 10:17	06/29/20 09:48	1
Benzo[g,h,i]perylene	ND		17	3.3	ug/Kg		06/27/20 10:17	06/29/20 09:48	1
Chrysene	ND		17	3.3	ug/Kg		06/27/20 10:17	06/29/20 09:48	1
Fluorene	ND		17	3.3	ug/Kg		06/27/20 10:17	06/29/20 09:48	1
Naphthalene	ND		17	6.7	ug/Kg		06/27/20 10:17	06/29/20 09:48	1
Phenanthrene	ND		17	3.3	ug/Kg		06/27/20 10:17	06/29/20 09:48	1
Pyrene	ND		17	3.3	ug/Kg		06/27/20 10:17	06/29/20 09:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14 (Surr)	*99*		*35 - 135*	*06/27/20 10:17*	*06/29/20 09:48*	*1*
Nitrobenzene-d5 (Surr)	*73*		*23 - 115*	*06/27/20 10:17*	*06/29/20 09:48*	*1*
2-Fluorobiphenyl (Surr)	*82*		*34 - 117*	*06/27/20 10:17*	*06/29/20 09:48*	*1*

Lab Sample ID: LCS 410-17280/2-A
Matrix: Solid
Analysis Batch: 17459

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17280

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	1670	1500		ug/Kg		90	67 - 120
Benzo[a]anthracene	1670	1560		ug/Kg		94	68 - 120
Benzo[a]pyrene	1670	1450		ug/Kg		87	68 - 119
Benzo[b]fluoranthene	1670	1580		ug/Kg		95	67 - 125
Benzo[g,h,i]perylene	1670	1560		ug/Kg		93	68 - 125
Chrysene	1670	1470		ug/Kg		88	66 - 111
Fluorene	1670	1530		ug/Kg		92	62 - 110
Naphthalene	1680	1270		ug/Kg		76	49 - 104

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-17280/2-A
Matrix: Solid
Analysis Batch: 17459

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17280

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenanthrene	1670	1440		ug/Kg		86	67 - 116
Pyrene	1680	1440		ug/Kg		86	67 - 109

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
p-Terphenyl-d14 (Surr)	*92*		*35 - 135*
Nitrobenzene-d5 (Surr)	*70*		*23 - 115*
2-Fluorobiphenyl (Surr)	*81*		*34 - 117*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-20004/1-A
Matrix: Water
Analysis Batch: 19948

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20004

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		07/07/20 13:18	07/07/20 18:17	1
Ethene (1C)	ND		5.0	1.0	ug/L		07/07/20 13:18	07/07/20 18:17	1
Methane (1C)	ND		5.0	3.0	ug/L		07/07/20 13:18	07/07/20 18:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*99*		*28 - 140*	*07/07/20 13:18*	*07/07/20 18:17*	*1*

Lab Sample ID: LCS 410-20004/2-A
Matrix: Water
Analysis Batch: 19948

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20004

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethane (1C)	59.4	56.2		ug/L		95	85 - 115
Ethene (1C)	60.4	58.4		ug/L		97	83 - 115
Methane (1C)	59.4	59.5		ug/L		100	85 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*98*		*28 - 140*

Lab Sample ID: LCSD 410-20004/3-A
Matrix: Water
Analysis Batch: 19948

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20004

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)	59.4	55.2		ug/L		93	85 - 115	2	20
Ethene (1C)	60.4	57.6		ug/L		95	83 - 115	2	20
Methane (1C)	59.4	59.3		ug/L		100	85 - 115	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*98*		*28 - 140*

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: MB 410-20389/1-A
Matrix: Water
Analysis Batch: 20373

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20389

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		07/08/20 10:09	07/08/20 16:17	1
Ethene (1C)	ND		5.0	1.0	ug/L		07/08/20 10:09	07/08/20 16:17	1
Methane (1C)	ND		5.0	3.0	ug/L		07/08/20 10:09	07/08/20 16:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*99*		*28 - 140*	*07/08/20 10:09*	*07/08/20 16:17*	*1*

Lab Sample ID: LCS 410-20389/2-A
Matrix: Water
Analysis Batch: 20373

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20389

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	59.1		ug/L		100	85 - 115		
Ethene (1C)			60.4	60.1		ug/L		100	83 - 115		
Methane (1C)			59.4	62.0		ug/L		104	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*98*		*28 - 140*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-18327/1-A
Matrix: Water
Analysis Batch: 18690

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18327

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		06/30/20 23:11	07/01/20 18:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*81*		*46 - 136*	*06/30/20 23:11*	*07/01/20 18:39*	*1*

Lab Sample ID: LCS 410-18327/2-A
Matrix: Water
Analysis Batch: 18690

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18327

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.144		ug/L		112	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*78*		*46 - 136*

Lab Sample ID: LCSD 410-18327/3-A
Matrix: Water
Analysis Batch: 18690

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 18327

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.140		ug/L		109	60 - 140	3	20

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,1,2,2-Tetrachloroethane (Surr) (2C)	73		46 - 136

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 410-17277/1-A
Matrix: Solid
Analysis Batch: 18172

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17277

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		12	5.0	mg/Kg		06/27/20 08:22	06/29/20 12:14	1
>C22-C44 (1C)	ND		12	5.0	mg/Kg		06/27/20 08:22	06/29/20 12:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Chlorobenzene (Surr) (1C)	71		54 - 137	06/27/20 08:22	06/29/20 12:14	1
o- terphenyl (Surr) (1C)	93		42 - 143	06/27/20 08:22	06/29/20 12:14	1

Lab Sample ID: LCS 410-17277/2-A
Matrix: Solid
Analysis Batch: 18172

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17277

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
DRO (C10-C28) (1C)			133	102		mg/Kg		76	76 - 117		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Chlorobenzene (Surr) (1C)	70		54 - 137
o- terphenyl (Surr) (1C)	100		42 - 143

Lab Sample ID: 410-5534-1 MS
Matrix: Solid
Analysis Batch: 18172

Client Sample ID: CD-10-S-3.0-20200622
Prep Type: Total/NA
Prep Batch: 17277

Surrogate	MS %Recovery	MS Qualifier	Limits
Chlorobenzene (Surr) (1C)	2	XL	54 - 137
o- terphenyl (Surr) (1C)	2	XL	42 - 143

Lab Sample ID: 410-5534-1 DU
Matrix: Solid
Analysis Batch: 18172

Client Sample ID: CD-10-S-3.0-20200622
Prep Type: Total/NA
Prep Batch: 17277

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
>C12-C22 (1C)	110			6.98	J	mg/Kg	☼			177	
>C22-C44 (1C)	78			ND		mg/Kg	☼			NC	

Surrogate	DU %Recovery	DU Qualifier	Limits
Chlorobenzene (Surr) (1C)	1	XL	54 - 137
o- terphenyl (Surr) (1C)	2	XL	42 - 143

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: MB 410-18210/1-A
Matrix: Water
Analysis Batch: 19495

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18210

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		0.10	0.037	mg/L		06/30/20 16:40	07/01/20 12:23	1
>C22-C44 (1C)	ND		0.10	0.037	mg/L		06/30/20 16:40	07/01/20 12:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*56*		*21 - 116*	*06/30/20 16:40*	*07/01/20 12:23*	*1*
o- terphenyl (Surr) (1C)	*75*		*51 - 126*	*06/30/20 16:40*	*07/01/20 12:23*	*1*

Lab Sample ID: LCS 410-18210/2-A
Matrix: Water
Analysis Batch: 19495

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18210

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
DRO (C10-C28) (1C)			0.800	0.508		mg/L		63	48 - 116		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Chlorobenzene (Surr) (1C)	*53*		*21 - 116*
o- terphenyl (Surr) (1C)	*87*		*51 - 126*

Lab Sample ID: LCSD 410-18210/3-A
Matrix: Water
Analysis Batch: 19495

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 18210

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (C10-C28) (1C)			0.800	0.639	*1	mg/L		80	48 - 116	23	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Chlorobenzene (Surr) (1C)	*52*		*21 - 116*
o- terphenyl (Surr) (1C)	*86*		*51 - 126*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 460-705509/8
Matrix: Water
Analysis Batch: 705509

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.12	0.014	mg/L			07/02/20 10:40	1
Sulfate	ND		0.60	0.35	mg/L			07/02/20 10:40	1

Lab Sample ID: LCS 460-705509/10
Matrix: Water
Analysis Batch: 705509

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			3.20	3.04		mg/L		95	90 - 110		
Sulfate			4.80	4.83		mg/L		101	90 - 110		

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 460-705509/11
Matrix: Water
Analysis Batch: 705509

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			3.20	3.04		mg/L		95	90 - 110	0	15
Sulfate			4.80	4.81		mg/L		100	90 - 110	0	15

Lab Sample ID: MB 460-705510/8
Matrix: Water
Analysis Batch: 705510

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.10	0.056	mg/L			07/02/20 10:40	1

Lab Sample ID: LCS 460-705510/10
Matrix: Water
Analysis Batch: 705510

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N			3.20	3.07		mg/L		96	90 - 110

Lab Sample ID: LCSD 460-705510/11
Matrix: Water
Analysis Batch: 705510

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N			3.20	3.07		mg/L		96	90 - 110	0	15

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-16501/1-A
Matrix: Water
Analysis Batch: 16845

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 16501

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.20	0.096	mg/L		06/25/20 02:34	06/25/20 15:49	1
Iron	ND		0.20	0.040	mg/L		06/25/20 02:34	06/25/20 15:49	1
Magnesium	ND		0.10	0.040	mg/L		06/25/20 02:34	06/25/20 15:49	1
Potassium	ND		0.50	0.20	mg/L		06/25/20 02:34	06/25/20 15:49	1
Sodium	ND		1.0	0.24	mg/L		06/25/20 02:34	06/25/20 15:49	1

Lab Sample ID: LCS 410-16501/2-A
Matrix: Water
Analysis Batch: 16845

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 16501

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium			0.400	0.416		mg/L		104	80 - 120
Iron			0.402	0.425		mg/L		106	80 - 120
Magnesium			0.200	0.216		mg/L		108	80 - 120
Potassium			5.60	6.02		mg/L		107	80 - 120
Sodium			2.00	2.23		mg/L		112	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 410-17900/1-A
Matrix: Water
Analysis Batch: 19068

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17900

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		06/30/20 06:49	07/02/20 08:52	1

Lab Sample ID: LCS 410-17900/2-A
Matrix: Water
Analysis Batch: 19068

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17900

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	4.92	5.59	*H	ug/L		114	90 - 110

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 410-17172/81
Matrix: Water
Analysis Batch: 17172

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8.0	8.0	mg/L			06/26/20 02:25	1

Lab Sample ID: LCS 410-17172/82
Matrix: Water
Analysis Batch: 17172

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	189	182		mg/L		96	82 - 106

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 410-17140/1
Matrix: Water
Analysis Batch: 17140

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.30	0.10	mg/L			06/26/20 12:27	1

Lab Sample ID: LCS 410-17140/13
Matrix: Water
Analysis Batch: 17140

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	1.00	1.02		mg/L		102	90 - 110

Method: SM4500 NH3 - Ammonia

Lab Sample ID: MB 410-17577/1-A
Matrix: Water
Analysis Batch: 17643

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17577

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia-N	ND		0.75	0.25	mg/L		06/29/20 09:57	06/29/20 12:36	1

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-5534-1

Method: SM4500 NH3 - Ammonia (Continued)

Lab Sample ID: LCS 410-17577/2-A
Matrix: Water
Analysis Batch: 17643

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17577

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia-N			10.0	9.93		mg/L		99	93 - 100		

Lab Sample ID: LCSD 410-17577/3-A
Matrix: Water
Analysis Batch: 17643

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 17577

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia-N			10.0	9.81		mg/L		98	93 - 100	1	5

GC/MS VOA

Analysis Batch: 17042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-4	TB-20200623	Total/NA	Water	8260C/UST	
MB 410-17042/5	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-17042/26	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-17042/27	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

Prep Batch: 17123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-1	CD-10-S-3.0-20200622	Total/NA	Solid	5035	
410-5534-1 - DL	CD-10-S-3.0-20200622	Total/NA	Solid	5035	

Prep Batch: 17124

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-2	CD-10-S-38.0-20200623	Total/NA	Solid	5035	

Analysis Batch: 18927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-2	CD-10-S-38.0-20200623	Total/NA	Solid	8260C	17124

Analysis Batch: 19108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-1	CD-10-S-3.0-20200622	Total/NA	Solid	8260C	17123
MB 410-19108/8	Method Blank	Total/NA	Solid	8260C	
LCS 410-19108/5	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 410-19108/6	Lab Control Sample Dup	Total/NA	Solid	8260C	

Analysis Batch: 21187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-3	CD-10-W-38.0-20200623	Total/NA	Water	8260C/UST	
MB 410-21187/5	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-21187/6	Lab Control Sample	Total/NA	Water	8260C/UST	
LCS 410-21187/8	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-21187/7	Lab Control Sample Dup	Total/NA	Water	8260C/UST	
LCSD 410-21187/9	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

Analysis Batch: 24739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-1 - DL	CD-10-S-3.0-20200622	Total/NA	Solid	8260C	17123
MB 410-24739/11	Method Blank	Total/NA	Solid	8260C	
LCS 410-24739/8	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 410-24739/9	Lab Control Sample Dup	Total/NA	Solid	8260C	

GC/MS Semi VOA

Prep Batch: 16792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-3 - DL	CD-10-W-38.0-20200623	Total/NA	Water	3510C	
410-5534-3	CD-10-W-38.0-20200623	Total/NA	Water	3510C	
MB 410-16792/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-16792/2-A	Lab Control Sample	Total/NA	Water	3510C	

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-5534-1

GC/MS Semi VOA

Prep Batch: 17280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-1	CD-10-S-3.0-20200622	Total/NA	Solid	3546	
410-5534-2	CD-10-S-38.0-20200623	Total/NA	Solid	3546	
MB 410-17280/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-17280/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 17365

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-3	CD-10-W-38.0-20200623	Total/NA	Water	8270D	16792
MB 410-16792/1-A	Method Blank	Total/NA	Water	8270D	16792
LCS 410-16792/2-A	Lab Control Sample	Total/NA	Water	8270D	16792

Analysis Batch: 17459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-1	CD-10-S-3.0-20200622	Total/NA	Solid	8270D	17280
410-5534-2	CD-10-S-38.0-20200623	Total/NA	Solid	8270D	17280
MB 410-17280/1-A	Method Blank	Total/NA	Solid	8270D	17280
LCS 410-17280/2-A	Lab Control Sample	Total/NA	Solid	8270D	17280

Analysis Batch: 19473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-3 - DL	CD-10-W-38.0-20200623	Total/NA	Water	8270D	16792

GC VOA

Analysis Batch: 19948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-3	CD-10-W-38.0-20200623	Total/NA	Water	RSK-175	20004
MB 410-20004/1-A	Method Blank	Total/NA	Water	RSK-175	20004
LCS 410-20004/2-A	Lab Control Sample	Total/NA	Water	RSK-175	20004
LCSD 410-20004/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	20004

Prep Batch: 20004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-3	CD-10-W-38.0-20200623	Total/NA	Water	RSK-175	
MB 410-20004/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-20004/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-20004/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 20373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-3 - DL	CD-10-W-38.0-20200623	Total/NA	Water	RSK-175	20389
MB 410-20389/1-A	Method Blank	Total/NA	Water	RSK-175	20389
LCS 410-20389/2-A	Lab Control Sample	Total/NA	Water	RSK-175	20389

Prep Batch: 20389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-3 - DL	CD-10-W-38.0-20200623	Total/NA	Water	RSK-175	
MB 410-20389/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-20389/2-A	Lab Control Sample	Total/NA	Water	RSK-175	

GC Semi VOA

Prep Batch: 17277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-1	CD-10-S-3.0-20200622	Total/NA	Solid	3546	
410-5534-2	CD-10-S-38.0-20200623	Total/NA	Solid	3546	
MB 410-17277/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-17277/2-A	Lab Control Sample	Total/NA	Solid	3546	
410-5534-1 MS	CD-10-S-3.0-20200622	Total/NA	Solid	3546	
410-5534-1 DU	CD-10-S-3.0-20200622	Total/NA	Solid	3546	

Analysis Batch: 18172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-1	CD-10-S-3.0-20200622	Total/NA	Solid	8015C	17277
410-5534-2	CD-10-S-38.0-20200623	Total/NA	Solid	8015C	17277
MB 410-17277/1-A	Method Blank	Total/NA	Solid	8015C	17277
LCS 410-17277/2-A	Lab Control Sample	Total/NA	Solid	8015C	17277
410-5534-1 MS	CD-10-S-3.0-20200622	Total/NA	Solid	8015C	17277
410-5534-1 DU	CD-10-S-3.0-20200622	Total/NA	Solid	8015C	17277

Prep Batch: 18210

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-3	CD-10-W-38.0-20200623	Total/NA	Water	3510C	
MB 410-18210/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-18210/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-18210/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 18327

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-3	CD-10-W-38.0-20200623	Total/NA	Water	8011	
MB 410-18327/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-18327/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-18327/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 18690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-3	CD-10-W-38.0-20200623	Total/NA	Water	8011	18327
MB 410-18327/1-A	Method Blank	Total/NA	Water	8011	18327
LCS 410-18327/2-A	Lab Control Sample	Total/NA	Water	8011	18327
LCSD 410-18327/3-A	Lab Control Sample Dup	Total/NA	Water	8011	18327

Analysis Batch: 19495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-18210/1-A	Method Blank	Total/NA	Water	8015C	18210
LCS 410-18210/2-A	Lab Control Sample	Total/NA	Water	8015C	18210
LCSD 410-18210/3-A	Lab Control Sample Dup	Total/NA	Water	8015C	18210

Analysis Batch: 19868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-3	CD-10-W-38.0-20200623	Total/NA	Water	8015C	18210

Analysis Batch: 28450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-1	CD-10-S-3.0-20200622	Total/NA	Solid	Total TPH	
410-5534-2	CD-10-S-38.0-20200623	Total/NA	Solid	Total TPH	

GC Semi VOA (Continued)

Analysis Batch: 28450 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-3	CD-10-W-38.0-20200623	Total/NA	Water	Total TPH	

HPLC/IC

Analysis Batch: 705509

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-3	CD-10-W-38.0-20200623	Total/NA	Water	300.0	
MB 460-705509/8	Method Blank	Total/NA	Water	300.0	
LCS 460-705509/10	Lab Control Sample	Total/NA	Water	300.0	
LCSD 460-705509/11	Lab Control Sample Dup	Total/NA	Water	300.0	

Analysis Batch: 705510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-3	CD-10-W-38.0-20200623	Total/NA	Water	300.0	
MB 460-705510/8	Method Blank	Total/NA	Water	300.0	
LCS 460-705510/10	Lab Control Sample	Total/NA	Water	300.0	
LCSD 460-705510/11	Lab Control Sample Dup	Total/NA	Water	300.0	

Metals

Prep Batch: 16501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-3	CD-10-W-38.0-20200623	Total Recoverable	Water	3005A	
MB 410-16501/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-16501/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Filtration Batch: 16520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-3	CD-10-W-38.0-20200623	Dissolved	Water	Filtration	

Analysis Batch: 16845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-3	CD-10-W-38.0-20200623	Total Recoverable	Water	6010C	16501
MB 410-16501/1-A	Method Blank	Total Recoverable	Water	6010C	16501
LCS 410-16501/2-A	Lab Control Sample	Total Recoverable	Water	6010C	16501

Prep Batch: 17900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-3	CD-10-W-38.0-20200623	Dissolved	Water	Non-Digest Prep	16520
MB 410-17900/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-17900/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	

Analysis Batch: 19068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-3	CD-10-W-38.0-20200623	Dissolved	Water	6020A	17900
MB 410-17900/1-A	Method Blank	Total/NA	Water	6020A	17900
LCS 410-17900/2-A	Lab Control Sample	Total/NA	Water	6020A	17900

General Chemistry

Analysis Batch: 16483

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-1	CD-10-S-3.0-20200622	Total/NA	Solid	Moisture	
410-5534-2	CD-10-S-38.0-20200623	Total/NA	Solid	Moisture	

Analysis Batch: 17140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-3	CD-10-W-38.0-20200623	Total/NA	Water	SM 4500 S2 D	
MB 410-17140/1	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 410-17140/13	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	

Analysis Batch: 17172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-3	CD-10-W-38.0-20200623	Total/NA	Water	SM 2320B	
MB 410-17172/81	Method Blank	Total/NA	Water	SM 2320B	
LCS 410-17172/82	Lab Control Sample	Total/NA	Water	SM 2320B	

Prep Batch: 17577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-3	CD-10-W-38.0-20200623	Total/NA	Water	SM 4500 NH3 B	
MB 410-17577/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 B	
LCS 410-17577/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 B	
LCSD 410-17577/3-A	Lab Control Sample Dup	Total/NA	Water	SM 4500 NH3 B	

Analysis Batch: 17643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5534-3	CD-10-W-38.0-20200623	Total/NA	Water	SM4500 NH3	17577
MB 410-17577/1-A	Method Blank	Total/NA	Water	SM4500 NH3	17577
LCS 410-17577/2-A	Lab Control Sample	Total/NA	Water	SM4500 NH3	17577
LCSD 410-17577/3-A	Lab Control Sample Dup	Total/NA	Water	SM4500 NH3	17577

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-5534-1

Client Sample ID: CD-10-S-3.0-20200622
Lab Sample ID: 410-5534-1
Date Collected: 06/22/20 14:30
Matrix: Solid
Date Received: 06/24/20 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	16483	06/24/20 22:58	X4C8	ELLE

Client Sample ID: CD-10-S-3.0-20200622
Lab Sample ID: 410-5534-1
Date Collected: 06/22/20 14:30
Matrix: Solid
Date Received: 06/24/20 16:15
Percent Solids: 75.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			17123	06/26/20 11:12	HDS6	ELLE
Total/NA	Analysis	8260C		50	19108	07/03/20 03:57	Z6JB	ELLE
Total/NA	Prep	5035	DL		17123	06/26/20 11:12	HDS6	ELLE
Total/NA	Analysis	8260C	DL	50	24739	07/21/20 19:01	Z6JB	ELLE
Total/NA	Prep	3546			17280	06/27/20 10:17	QTH7	ELLE
Total/NA	Analysis	8270D		1	17459	06/29/20 11:47	SJ89	ELLE
Total/NA	Prep	3546			17277	06/27/20 08:22	QTH7	ELLE
Total/NA	Analysis	8015C		1	18172	06/29/20 13:18	YHQ2	ELLE
Total/NA	Analysis	Total TPH		1	28450	07/31/20 09:17	KP5X	ELLE

Client Sample ID: CD-10-S-38.0-20200623
Lab Sample ID: 410-5534-2
Date Collected: 06/23/20 12:20
Matrix: Solid
Date Received: 06/24/20 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	16483	06/24/20 22:58	X4C8	ELLE

Client Sample ID: CD-10-S-38.0-20200623
Lab Sample ID: 410-5534-2
Date Collected: 06/23/20 12:20
Matrix: Solid
Date Received: 06/24/20 16:15
Percent Solids: 85.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			17124	06/26/20 11:13	HDS6	ELLE
Total/NA	Analysis	8260C		1	18927	07/02/20 15:48	ULCP	ELLE
Total/NA	Prep	3546			17280	06/27/20 10:17	QTH7	ELLE
Total/NA	Analysis	8270D		1	17459	06/29/20 13:23	SJ89	ELLE
Total/NA	Prep	3546			17277	06/27/20 08:22	QTH7	ELLE
Total/NA	Analysis	8015C		1	18172	06/29/20 12:57	YHQ2	ELLE
Total/NA	Analysis	Total TPH		1	28450	07/31/20 09:17	KP5X	ELLE

Client Sample ID: CD-10-W-38.0-20200623
Lab Sample ID: 410-5534-3
Date Collected: 06/23/20 14:45
Matrix: Water
Date Received: 06/24/20 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	21187	07/10/20 15:12	TK5O	ELLE
Total/NA	Prep	3510C			16792	06/25/20 18:00	DFX4	ELLE
Total/NA	Analysis	8270D		1	17365	06/28/20 12:19	WKV3	ELLE

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-5534-1

Client Sample ID: CD-10-W-38.0-20200623

Lab Sample ID: 410-5534-3

Date Collected: 06/23/20 14:45
Matrix: Water
Date Received: 06/24/20 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C	DL		16792	06/25/20 18:00	DFX4	ELLE
Total/NA	Analysis	8270D	DL	5	19473	07/06/20 14:50	WKV3	ELLE
Total/NA	Prep	RSK-175	DL		20389	07/08/20 10:09	IYN5	ELLE
Total/NA	Analysis	RSK-175	DL	100	20373	07/09/20 09:59	IYN5	ELLE
Total/NA	Prep	RSK-175			20004	07/07/20 13:18	IYN5	ELLE
Total/NA	Analysis	RSK-175		1	19948	07/07/20 19:11	IYN5	ELLE
Total/NA	Prep	8011			18327	06/30/20 23:11	K2IL	ELLE
Total/NA	Analysis	8011		1	18690	07/01/20 21:30	AC3T	ELLE
Total/NA	Prep	3510C			18210	06/30/20 16:40	OT54	ELLE
Total/NA	Analysis	8015C		20	19868	07/06/20 15:00	YHQ2	ELLE
Total/NA	Analysis	Total TPH		1	28450	07/31/20 09:17	KP5X	ELLE
Total/NA	Analysis	300.0		1	705509	07/02/20 12:42	VMI	TAL EDI
Total/NA	Analysis	300.0		1	705510	07/02/20 12:42	VMI	TAL EDI
Total Recoverable	Prep	3005A			16501	06/25/20 02:34	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	16845	06/25/20 16:56	UCIG	ELLE
Dissolved	Filtration	Filtration			16520	06/25/20 05:16	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			17900	06/30/20 06:49	UJL8	ELLE
Dissolved	Analysis	6020A		1	19068	07/02/20 09:07	BMB	ELLE
Total/NA	Analysis	SM 2320B		1	17172	06/26/20 03:17	JB	ELLE
Total/NA	Analysis	SM 4500 S2 D		1	17140	06/26/20 12:27	P8DZ	ELLE
Total/NA	Prep	SM 4500 NH3 B			17577	06/29/20 09:57	UYB0	ELLE
Total/NA	Analysis	SM4500 NH3		1	17643	06/29/20 12:36	UYB0	ELLE

Client Sample ID: TB-20200623

Lab Sample ID: 410-5534-4

Date Collected: 06/11/20 00:00
Matrix: Water
Date Received: 06/24/20 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	17042	06/26/20 13:59	TK5O	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300
TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: Stantec Consulting Corp. Job ID: 410-5534-1
Project/Site: PHL Penrose Drilling Sampling

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015C	3510C	Water	>C12-C22 (1C)
8015C	3510C	Water	>C22-C44 (1C)
8015C	3546	Solid	>C12-C22 (1C)
8015C	3546	Solid	>C22-C44 (1C)
Moisture		Solid	Percent Moisture
Total TPH		Solid	Total Reported TPH
Total TPH		Water	Total Reported TPH

Laboratory: Eurofins TestAmerica, Edison

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	68-00522	09-30-20

Method Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-5534-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
8260C/UST	Volatile Organic Compounds (GC/MS)	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
RSK-175	Dissolved Gases (GC)	RSK	ELLE
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	ELLE
Total TPH	Total TPH	None	ELLE
300.0	Anions, Ion Chromatography	MCAWW	TAL EDI
6010C	Metals (ICP)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
Moisture	Percent Moisture	EPA	ELLE
SM 2320B	Alkalinity	SM	ELLE
SM 4500 S2 D	Sulfide, Total	SM	ELLE
SM4500 NH3	Ammonia	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
3546	Microwave Extraction	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
5035	Closed System Purge and Trap	SW846	ELLE
8011	Microextraction	SW846	ELLE
Filtration	Sample Filtration	None	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE
SM 4500 NH3 B	Distillation, Ammonia	SM	ELLE

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-5534-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-5534-1	CD-10-S-3.0-20200622	Solid	06/22/20 14:30	06/24/20 16:15	
410-5534-2	CD-10-S-38.0-20200623	Solid	06/23/20 12:20	06/24/20 16:15	
410-5534-3	CD-10-W-38.0-20200623	Water	06/23/20 14:45	06/24/20 16:15	
410-5534-4	TB-20200623	Water	06/11/20 00:00	06/24/20 16:15	

Environmental Analysis Request and Chain of Custody

eurofins | Lancaster Laboratories Environmental

Acct. # _____

410-5534 Chain of Custody

For Lab Use Only

COC #594049

Client Information

Client: Evergreen c/o Stantec	Acct. #: 16657
Project Name/#: PHC Penrose Drilling Sampling	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 2134026602
Sampler: Dane Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

FSC: _____

SCR#: _____

Sample Identification	Collected Date	Collected Time	Grab	Composite	Matrix: Soil/Sediment	Water	Other	Total # of Containers	Analysis Requested: Custom TPH w/ Ranges	TPH-GRO 8260 / Moisture	Metals 6010 / Lead (dissolved by 6020)	Sulfide	Chloride, Nitrate, Nitrogen, Sulfate	Volatile Headspace Hydrocarbons	Total Alkalinity to 4.5	Ammonia Nitrogen	Short List VOCs 8260	Short List SVOCs 8270
CD-10-S-3.0-20200622	6/22/20	1436	X		X			6	X	X	X						X	X
CD-10-S-38.0-20200623	6/23/20	1220	X		X			6	X	X	X						X	X
CD-10-W-38.0-20200623	6/23/20	1445	X			X		17	X	X	X	X	X	X	X	X	X	X
(PH) ~~PHC Penrose~~ TB-20200623	6/11/20	—					X	2									X	

Preservation Codes: H=HCl, T=Thiosulfate, N=HNO_3, B=NaOH, S=H_2SO_4, P=H_3PO_4, F=Field Filtered, O=Other

Remarks

*refer to Evergreen Petroleum Short List for list of analytes

(X)=dissolved lead 6020 only

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: andrew.klingbeil@stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)

Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13

NYSDEC Category A or B | MA MCP | CT RCP

Relinquished by	Date	Time	Received by	Date	Time
	6/24/20	1140		6.24.20	11:40
	6.24.20	1535			
			W Mathus	6/24/20	1615

EDD Required? Yes No

If yes, format: EQUIS

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____

Temperature upon receipt 4.3 °C

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The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0718

Environmental Analysis Req[illegible]stody

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Acct. # _____ F[illegible] only

410-5534 Chain of Custody

COC #594049

Client Information

Client: Evergreen C/O Stantec	Acct. #: 16657
Project Name/#: PHC Penrose Drilling Sampling	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 213402602
Sampler: Dane Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix

☐ Tissue ☐ Sediment ☒ Ground ☐ Surface ☐ Potable ☐ NPDES

Soil ☒ Water Other: Trip Blank

Analysis Requested

Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil ☒ Sediment	Water	Other: Trip Blank	Total # of Containers	Custom TPH w/ Ranges	TPH-GRO 8260/moisture (H/O)	Metals 6010/Lead (dissolved 6020 total 6010B) (N)	Sulfide (O)	Chloride, Nitrate Nitrogen, Sulfate	Volatile Headspace Hydrocarbon (H)	Total Alkalinity to 4.5	Ammonia Nitrogen (S)	Short List VOCs 8260 including TBA 8260+EDB 8011 (H/O)	Short List SVOCs 8270	Remarks
CD-10-S-3.0-20200622	6/22/20	1430	X		X			6	X	X	(X)						X	X	(X)=dissolved lead 6020 only
CD-10-S-38.0-20200623	6/23/20	1220	X		X			6	X	X	(X)						X	X	
CD-10-W-38.0-20200623	6/23/20	1445	X			X		17	X	X	X	X	X	X	X	X	X	X	
OH ~~TRIP BLANK~~ TB-20200623	6/11/20	—					X	2									X		

For Lab Use Only
FSC: _____
SCR#: _____

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks
*refer to Evergreen Petroleum Short List for list of analytes

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: andrew.klingbeil@stantec.com

Relinquished by	Date	Time	Received by	Date	Time
Dane	6/24/20	1140	[signature]	6.24.20	11:40
[signature]	6.24.20	1535			
			W Mathews	6/24/20	1615

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

EDD Required? Yes No
If yes, format: EQUIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:
UPS _____ FedEx _____ Other _____

Temperature upon receipt 4.3 °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT https://www.eurofinsus.com/coc
The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0718

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-5534-1

Login Number: 5534
List Number: 1
Creator: Jeremiah, Cory T

List Source: Eurofins Lancaster Laboratories Env

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-5534-1

Login Number: 5534
List Number: 2
Creator: Armbruster, Chris

List Source: Eurofins TestAmerica, Edison
List Creation: 07/01/20 02:26 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.5, 2.8, 3.0°C IR11
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-5704-1
Client Project/Site: PHL Penrose Drilling Sampling

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Andrew Klingbeil

Authorized for release by:
8/27/2020 10:42:22 AM

Amek Carter, Project Manager
(717)556-7252
amekcarter@eurofinsus.com

LINKS

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Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments. QC data that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result. Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
8/27/2020 10:42:22 AM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 6
Detection Summary 8
Client Sample Results 9
Surrogate Summary 11
QC Sample Results 13
QC Association Summary 22
Lab Chronicle 26
Certification Summary 27
Method Summary 28
Sample Summary 29
Chain of Custody 30
Receipt Checklists 31

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-5704-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
*L	LCS and/or LCSD recovery below control limits.

HPLC/IC

Qualifier	Qualifier Description
E	Result exceeded calibration range.
H	Sample was prepped or analyzed beyond the specified holding time

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-5704-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-5704-1

Comments
No additional comments.

Receipt
The sample was received on 6/25/2020 4:10 PM; the sample arrived in good condition, and where required, properly preserved on ice. The temperature of the cooler at receipt was 1.8º C.

GC/MS VOA
Method 8260C/UST: The following sample was analyzed outside of analytical holding time: CD-10-W-45.0-20200624 (410-5704

Method 8260C/UST: Reanalysis of the following sample was performed outside of the analytical holding time on 410-21187 : CD-10-W-45.0-20200624 (410-5704-1).

Method 8260C/UST: The method requirement for no headspace was not met. The container (s) used for analysis of the followin sample contained headspace on 410-21187: CD-10-W-45.0-20200624 (410-5704-1).

Method 8260C/UST: Internal standard (ISTD) and surrogate recovery for the following sample was outside control limits: CD-10-W-45.0-20200624 (410-5704-1). The sample(s) re-analyzed outside holding time and surrogate recovery was within con limits. Results reported are from both analyses.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

HPLC/IC
Method 300.0: The result for Chloride was above the upper calibration range and is reported as an Estimated ("E") value in sam CD-10-W-45.0-20200624 (410-5704-1)

Method 300.0: The following sample was analyzed outside of analytical holding time due to improper sample prioritizing: CD-10-W-45.0-20200624 (410-5704-1)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC VOA
Method RSK-175: The method requirement for no headspace was not met. The following RSK_175 sample was analyzed with significant headspace in the sample container(s) for the methane analysis:
CD-10-W-45.0-20200624 (410-5704-1). Significant headspace is defined as a bubble greater than 6 mm in diameter.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method 8015C: The laboratory control sample duplicate (LCSD) for preparation batch 410-17820 and analytical batch 410-1906 recovered outside control limits for the following analytes: C10-C28. This analyte was biased low in the LCSD. Re-extraction w not able to be performed within the method required holding time.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method Filtration: The following samples requested dissolved metals and were not filtered in the field: CD-10-W-45.0-20200624

Job ID: 410-5704-1 (Continued)

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Conti

(410-5704-1). These samples were filtered and preserved upon receipt to the laboratory.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-5704-1

Client Sample ID: CD-10-W-45.0-20200624

Lab Sample ID: 410-5704-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	57	H	5.0	1.0	ug/L	1		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	22	H	5.0	0.30	ug/L	1		8260C/UST	Total/NA
Ethylbenzene	86	H	1.0	0.40	ug/L	1		8260C/UST	Total/NA
Isopropylbenzene	42	H	5.0	0.20	ug/L	1		8260C/UST	Total/NA
2-Methyl-2-propanol	68	H	50	12	ug/L	1		8260C/UST	Total/NA
Benzene - DL	270	H	10	2.0	ug/L	10		8260C/UST	Total/NA
C4-C12-TPH-GRO - DL	8700	H	500	290	ug/L	10		8260C/UST	Total/NA
Toluene - DL	210	H	10	2.0	ug/L	10		8260C/UST	Total/NA
Xylenes, Total - DL	400	H	60	14	ug/L	10		8260C/UST	Total/NA
Fluorene	0.31	J	0.51	0.10	ug/L	1		8270D	Total/NA
Naphthalene	61		0.51	0.10	ug/L	1		8270D	Total/NA
Ethane (1C)	6.3		5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	19000		500	300	ug/L	100		RSK-175	Total/NA
>C12-C22 (1C)	1.9		0.095	0.035	mg/L	1		8015C	Total/NA
>C22-C44 (1C)	0.21		0.095	0.035	mg/L	1		8015C	Total/NA
Total Reported TPH	2.1		0.20	0.074	mg/L	1		Total TPH	Total/NA
Sulfate	12		5.0	1.5	mg/L	5		300.0	Total/NA
Chloride	32	E	2.0	1.0	mg/L	5		300.0	Total/NA
Calcium	26		0.20	0.096	mg/L	1		6010C	Total Recoverable
Iron	16		0.20	0.040	mg/L	1		6010C	Total Recoverable
Magnesium	16		0.10	0.040	mg/L	1		6010C	Total Recoverable
Potassium	2.8		0.50	0.20	mg/L	1		6010C	Total Recoverable
Sodium	33		1.0	0.24	mg/L	1		6010C	Total Recoverable
Lead	0.46	J	0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	160		8.0	8.0	mg/L	1		SM 2320B	Total/NA
Ammonia-N	0.78	J	1.1	0.36	mg/L	1		SM4500 NH3	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-5704-1

Client Sample ID: CD-10-W-45.0-20200624

Date Collected: 06/24/20 12:30
Date Received: 06/25/20 16:10

Lab Sample ID: 410-5704-1

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**57**	**H**	5.0	1.0	ug/L			07/10/20 16:48	1
1,2-Dichloroethane	ND	H	1.0	0.30	ug/L			07/10/20 16:48	1
1,3,5-Trimethylbenzene	**22**	**H**	5.0	0.30	ug/L			07/10/20 16:48	1
Ethylbenzene	**86**	**H**	1.0	0.40	ug/L			07/10/20 16:48	1
Isopropylbenzene	**42**	**H**	5.0	0.20	ug/L			07/10/20 16:48	1
Methyl tertiary butyl ether	ND	H	1.0	0.20	ug/L			07/10/20 16:48	1
2-Methyl-2-propanol	**68**	**H**	50	12	ug/L			07/10/20 16:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*		*07/10/20 16:48*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*07/10/20 16:48*	*1*
Dibromofluoromethane (Surr)	*110*		*80 - 120*		*07/10/20 16:48*	*1*
Toluene-d8 (Surr)	*111*		*80 - 120*		*07/10/20 16:48*	*1*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**270**	**H**	10	2.0	ug/L			07/10/20 16:24	10
C4-C12-TPH-GRO	**8700**	**H**	500	290	ug/L			07/10/20 16:24	10
Toluene	**210**	**H**	10	2.0	ug/L			07/10/20 16:24	10
Xylenes, Total	**400**	**H**	60	14	ug/L			07/10/20 16:24	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*		*07/10/20 16:24*	*10*
4-Bromofluorobenzene (Surr)	*85*		*80 - 120*		*07/10/20 16:24*	*10*
Dibromofluoromethane (Surr)	*118*		*80 - 120*		*07/10/20 16:24*	*10*
Toluene-d8 (Surr)	*106*		*80 - 120*		*07/10/20 16:24*	*10*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.51	0.10	ug/L		06/28/20 12:08	06/29/20 17:04	1
Benzo[a]anthracene	ND		0.51	0.10	ug/L		06/28/20 12:08	06/29/20 17:04	1
Benzo[a]pyrene	ND		0.51	0.10	ug/L		06/28/20 12:08	06/29/20 17:04	1
Benzo[b]fluoranthene	ND		0.51	0.10	ug/L		06/28/20 12:08	06/29/20 17:04	1
Benzo[g,h,i]perylene	ND		0.51	0.10	ug/L		06/28/20 12:08	06/29/20 17:04	1
Chrysene	ND		0.51	0.10	ug/L		06/28/20 12:08	06/29/20 17:04	1
Fluorene	**0.31**	**J**	0.51	0.10	ug/L		06/28/20 12:08	06/29/20 17:04	1
Naphthalene	**61**		0.51	0.10	ug/L		06/28/20 12:08	06/29/20 17:04	1
Phenanthrene	ND		0.51	0.10	ug/L		06/28/20 12:08	06/29/20 17:04	1
Pyrene	ND		0.51	0.10	ug/L		06/28/20 12:08	06/29/20 17:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14 (Surr)	*53*		*34 - 128*	*06/28/20 12:08*	*06/29/20 17:04*	*1*
Nitrobenzene-d5 (Surr)	*81*		*38 - 113*	*06/28/20 12:08*	*06/29/20 17:04*	*1*
2-Fluorobiphenyl (Surr)	*78*		*44 - 102*	*06/28/20 12:08*	*06/29/20 17:04*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**6.3**		5.0	1.0	ug/L		07/01/20 09:40	07/01/20 19:08	1
Ethene (1C)	ND		5.0	1.0	ug/L		07/01/20 09:40	07/01/20 19:08	1

Client Sample ID: CD-10-W-45.0-20200624

Date Collected: 06/24/20 12:30
Date Received: 06/25/20 16:10

Lab Sample ID: 410-5704-1

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*63*		*28 - 140*	*07/01/20 09:40*	*07/01/20 19:08*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**19000**		500	300	ug/L		07/02/20 11:01	07/03/20 02:07	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*97*		*28 - 140*	*07/02/20 11:01*	*07/03/20 02:07*	*100*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0096	ug/L		06/30/20 23:11	07/01/20 21:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*107*		*46 - 136*	*06/30/20 23:11*	*07/01/20 21:47*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*76*		*46 - 136*	*06/30/20 23:11*	*07/01/20 21:47*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	**1.9**		0.095	0.035	mg/L		06/29/20 20:22	06/30/20 18:13	1
>C22-C44 (1C)	**0.21**		0.095	0.035	mg/L		06/29/20 20:22	06/30/20 18:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*104*		*21 - 116*	*06/29/20 20:22*	*06/30/20 18:13*	*1*
o- terphenyl (Surr) (1C)	*82*		*51 - 126*	*06/29/20 20:22*	*06/30/20 18:13*	*1*

Method: Total TPH - Total TPH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Reported TPH	**2.1**		0.20	0.074	mg/L			07/31/20 09:17	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND	H	0.50	0.25	mg/L			06/26/20 13:10	5
Sulfate	**12**		5.0	1.5	mg/L			06/26/20 13:10	5
Chloride	**32**	**E**	2.0	1.0	mg/L			06/26/20 13:10	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**26**		0.20	0.096	mg/L		06/26/20 08:05	07/02/20 11:50	1
Iron	**16**		0.20	0.040	mg/L		06/26/20 08:05	06/29/20 20:10	1
Magnesium	**16**		0.10	0.040	mg/L		06/26/20 08:05	06/30/20 17:28	1
Potassium	**2.8**		0.50	0.20	mg/L		06/26/20 08:05	06/29/20 20:10	1
Sodium	**33**		1.0	0.24	mg/L		06/26/20 08:05	07/21/20 10:49	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.46**	**J**	0.52	0.073	ug/L		07/01/20 16:32	07/15/20 11:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**160**		8.0	8.0	mg/L			06/26/20 22:28	1
Sulfide	ND		0.30	0.10	mg/L			06/26/20 15:03	1
Ammonia-N	**0.78**	**J**	1.1	0.36	mg/L		06/29/20 09:57	06/29/20 12:36	1

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-5704-1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-5704-1 - DL	CD-10-W-45.0-20200624	100	85	118	106
410-5704-1	CD-10-W-45.0-20200624	92	99	110	111
LCS 410-21187/6	Lab Control Sample	84	95	103	95
LCS 410-21187/8	Lab Control Sample	90	94	103	97
LCSD 410-21187/7	Lab Control Sample Dup	93	115	119	104
LCSD 410-21187/9	Lab Control Sample Dup	91	99	103	96
MB 410-21187/5	Method Blank	92	104	107	88

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		TPHd14	NBZ	FBP
Lab Sample ID	Client Sample ID	(34-128)	(38-113)	(44-102)
410-5704-1	CD-10-W-45.0-20200624	53	81	78
LCS 410-17382/2-A	Lab Control Sample	85	78	77
LCSD 410-17382/3-A	Lab Control Sample Dup	95	83	85
MB 410-17382/1-A	Method Blank	99	83	83

Surrogate Legend

TPHd14 = p-Terphenyl-d14 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
FBP = 2-Fluorobiphenyl (Surr)

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		Propene1
Lab Sample ID	Client Sample ID	(28-140)
410-5704-1	CD-10-W-45.0-20200624	63
410-5704-1 - DL	CD-10-W-45.0-20200624	97
LCS 410-18513/2-A	Lab Control Sample	104
LCS 410-18996/2-A	Lab Control Sample	105
LCSD 410-18513/3-A	Lab Control Sample Dup	105
LCSD 410-18996/3-A	Lab Control Sample Dup	101
MB 410-18513/1-A	Method Blank	105
MB 410-18996/1-A	Method Blank	101

Surrogate Legend

Propene = Propene

Surrogate Summary

Client: Stantec Consulting Corp. Job ID: 410-5704-1
Project/Site: PHL Penrose Drilling Sampling

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1122TCA1	1122TCA2
Lab Sample ID	Client Sample ID	(46-136)	(46-136)
410-5704-1	CD-10-W-45.0-20200624	107	76
LCS 410-18327/2-A	Lab Control Sample		78
LCSD 410-18327/3-A	Lab Control Sample Dup		73
MB 410-18327/1-A	Method Blank		81

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		CBNZ1	OTP1
Lab Sample ID	Client Sample ID	(21-116)	(51-126)
410-5704-1	CD-10-W-45.0-20200624	104	82
LCS 410-17820/2-A	Lab Control Sample	52	90
LCSD 410-17820/3-A	Lab Control Sample Dup	33	55
MB 410-17820/1-A	Method Blank	43	74

Surrogate Legend

CBNZ = Chlorobenzene (Surr)
OTP = o- terphenyl (Surr)

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-21187/5
Matrix: Water
Analysis Batch: 21187

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			07/10/20 11:02	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			07/10/20 11:02	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			07/10/20 11:02	1
Benzene	ND		1.0	0.20	ug/L			07/10/20 11:02	1
C4-C12-TPH-GRO	ND		50	29	ug/L			07/10/20 11:02	1
Ethylbenzene	ND		1.0	0.40	ug/L			07/10/20 11:02	1
Isopropylbenzene	ND		5.0	0.20	ug/L			07/10/20 11:02	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			07/10/20 11:02	1
Toluene	ND		1.0	0.20	ug/L			07/10/20 11:02	1
Xylenes, Total	ND		6.0	1.4	ug/L			07/10/20 11:02	1
2-Methyl-2-propanol	ND		50	12	ug/L			07/10/20 11:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*		*07/10/20 11:02*	*1*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*07/10/20 11:02*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 120*		*07/10/20 11:02*	*1*
Toluene-d8 (Surr)	*88*		*80 - 120*		*07/10/20 11:02*	*1*

Lab Sample ID: LCS 410-21187/6
Matrix: Water
Analysis Batch: 21187

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	20.0	18.2		ug/L		91	75 - 120
1,2-Dichloroethane	20.0	16.9		ug/L		84	73 - 124
1,3,5-Trimethylbenzene	20.0	17.7		ug/L		88	75 - 120
Benzene	20.0	19.1		ug/L		96	80 - 120
Ethylbenzene	20.0	18.7		ug/L		93	80 - 120
Isopropylbenzene	20.0	18.0		ug/L		90	80 - 120
Methyl tertiary butyl ether	20.0	17.4		ug/L		87	69 - 122
Naphthalene	20.0	15.7		ug/L		79	53 - 124
Toluene	20.0	18.3		ug/L		91	80 - 120
Xylenes, Total	60.0	55.0		ug/L		92	80 - 120
2-Methyl-2-propanol	200	179		ug/L		89	60 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*84*		*80 - 120*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*80 - 120*
Toluene-d8 (Surr)	*95*		*80 - 120*

Lab Sample ID: LCS 410-21187/8
Matrix: Water
Analysis Batch: 21187

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C4-C12-TPH-GRO	1000	889		ug/L		89	67 - 120

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-21187/8
Matrix: Water
Analysis Batch: 21187

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*80 - 120*
Toluene-d8 (Surr)	*97*		*80 - 120*

Lab Sample ID: LCSD 410-21187/7
Matrix: Water
Analysis Batch: 21187

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene			20.0	16.6		ug/L		83	75 - 120	9	30
1,2-Dichloroethane			20.0	17.4		ug/L		87	73 - 124	3	30
1,3,5-Trimethylbenzene			20.0	16.1		ug/L		80	75 - 120	10	30
Benzene			20.0	19.7		ug/L		99	80 - 120	3	30
Ethylbenzene			20.0	19.0		ug/L		95	80 - 120	2	30
Isopropylbenzene			20.0	19.8		ug/L		99	80 - 120	9	30
Methyl tertiary butyl ether			20.0	18.5		ug/L		92	69 - 122	6	30
Naphthalene			20.0	13.4		ug/L		67	53 - 124	16	30
Toluene			20.0	17.9		ug/L		90	80 - 120	2	30
Xylenes, Total			60.0	57.5		ug/L		96	80 - 120	4	30
2-Methyl-2-propanol			200	159		ug/L		80	60 - 130	11	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*93*		*80 - 120*
4-Bromofluorobenzene (Surr)	*115*		*80 - 120*
Dibromofluoromethane (Surr)	*119*		*80 - 120*
Toluene-d8 (Surr)	*104*		*80 - 120*

Lab Sample ID: LCSD 410-21187/9
Matrix: Water
Analysis Batch: 21187

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C4-C12-TPH-GRO			1000	962		ug/L		96	67 - 120	8	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*91*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*80 - 120*
Toluene-d8 (Surr)	*96*		*80 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-17382/1-A
Matrix: Water
Analysis Batch: 17575

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17382

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		06/28/20 12:08	06/29/20 12:13	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		06/28/20 12:08	06/29/20 12:13	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		06/28/20 12:08	06/29/20 12:13	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		06/28/20 12:08	06/29/20 12:13	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		06/28/20 12:08	06/29/20 12:13	1
Chrysene	ND		0.50	0.10	ug/L		06/28/20 12:08	06/29/20 12:13	1
Fluorene	ND		0.50	0.10	ug/L		06/28/20 12:08	06/29/20 12:13	1
Naphthalene	ND		0.50	0.10	ug/L		06/28/20 12:08	06/29/20 12:13	1
Phenanthrene	ND		0.50	0.10	ug/L		06/28/20 12:08	06/29/20 12:13	1
Pyrene	ND		0.50	0.10	ug/L		06/28/20 12:08	06/29/20 12:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14 (Surr)	*99*		*34 - 128*	*06/28/20 12:08*	*06/29/20 12:13*	*1*
Nitrobenzene-d5 (Surr)	*83*		*38 - 113*	*06/28/20 12:08*	*06/29/20 12:13*	*1*
2-Fluorobiphenyl (Surr)	*83*		*44 - 102*	*06/28/20 12:08*	*06/29/20 12:13*	*1*

Lab Sample ID: LCS 410-17382/2-A
Matrix: Water
Analysis Batch: 17575

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17382

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.1	40.7		ug/L		81	67 - 116
Benzo[a]anthracene	50.0	47.7		ug/L		95	68 - 123
Benzo[a]pyrene	50.2	42.3		ug/L		84	71 - 117
Benzo[b]fluoranthene	50.1	45.3		ug/L		90	69 - 121
Benzo[g,h,i]perylene	50.1	38.4		ug/L		77	60 - 119
Chrysene	50.0	44.9		ug/L		90	65 - 121
Fluorene	50.1	42.9		ug/L		86	56 - 115
Naphthalene	50.4	37.5		ug/L		74	51 - 102
Phenanthrene	50.2	41.2		ug/L		82	65 - 113
Pyrene	50.4	41.2		ug/L		82	65 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
p-Terphenyl-d14 (Surr)	*85*		*34 - 128*
Nitrobenzene-d5 (Surr)	*78*		*38 - 113*
2-Fluorobiphenyl (Surr)	*77*		*44 - 102*

Lab Sample ID: LCSD 410-17382/3-A
Matrix: Water
Analysis Batch: 17575

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 17382

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Anthracene	50.1	45.7		ug/L		91	67 - 116	12	30
Benzo[a]anthracene	50.0	51.1		ug/L		102	68 - 123	7	30
Benzo[a]pyrene	50.2	44.9		ug/L		90	71 - 117	6	30
Benzo[b]fluoranthene	50.1	47.7		ug/L		95	69 - 121	5	30
Benzo[g,h,i]perylene	50.1	41.2		ug/L		82	60 - 119	7	30
Chrysene	50.0	47.8		ug/L		96	65 - 121	6	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-17382/3-A
Matrix: Water
Analysis Batch: 17575

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 17382

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluorene			50.1	47.0		ug/L		94	56 - 115	9	30
Naphthalene			50.4	39.9		ug/L		79	51 - 102	6	30
Phenanthrene			50.2	45.6		ug/L		91	65 - 113	10	30
Pyrene			50.4	43.7		ug/L		87	65 - 115	6	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
p-Terphenyl-d14 (Surr)	*95*		*34 - 128*
Nitrobenzene-d5 (Surr)	*83*		*38 - 113*
2-Fluorobiphenyl (Surr)	*85*		*44 - 102*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-18513/1-A
Matrix: Water
Analysis Batch: 18516

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18513

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		07/01/20 09:40	07/01/20 14:34	1
Ethene (1C)	ND		5.0	1.0	ug/L		07/01/20 09:40	07/01/20 14:34	1
Methane (1C)	ND		5.0	3.0	ug/L		07/01/20 09:40	07/01/20 14:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*105*		*28 - 140*	*07/01/20 09:40*	*07/01/20 14:34*	*1*

Lab Sample ID: LCS 410-18513/2-A
Matrix: Water
Analysis Batch: 18516

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18513

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethane (1C)			59.4	59.1		ug/L		99	85 - 115
Ethene (1C)			60.4	61.5		ug/L		102	83 - 115
Methane (1C)			59.4	63.4		ug/L		107	85 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*104*		*28 - 140*

Lab Sample ID: LCSD 410-18513/3-A
Matrix: Water
Analysis Batch: 18516

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 18513

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	60.8		ug/L		102	85 - 115	3	20
Ethene (1C)			60.4	63.0		ug/L		104	83 - 115	2	20
Methane (1C)			59.4	64.9		ug/L		109	85 - 115	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*105*		*28 - 140*

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: MB 410-18996/1-A
Matrix: Water
Analysis Batch: 18982

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18996

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		07/02/20 11:00	07/02/20 18:54	1
Ethene (1C)	ND		5.0	1.0	ug/L		07/02/20 11:00	07/02/20 18:54	1
Methane (1C)	ND		5.0	3.0	ug/L		07/02/20 11:00	07/02/20 18:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*101*		*28 - 140*	*07/02/20 11:00*	*07/02/20 18:54*	*1*

Lab Sample ID: LCS 410-18996/2-A
Matrix: Water
Analysis Batch: 18982

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18996

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	61.9		ug/L		104	85 - 115		
Ethene (1C)			60.4	63.1		ug/L		104	83 - 115		
Methane (1C)			59.4	65.7		ug/L		111	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*105*		*28 - 140*

Lab Sample ID: LCSD 410-18996/3-A
Matrix: Water
Analysis Batch: 18982

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 18996

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	61.5		ug/L		104	85 - 115	1	20
Ethene (1C)			60.4	62.6		ug/L		104	83 - 115	1	20
Methane (1C)			59.4	64.8		ug/L		109	85 - 115	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*101*		*28 - 140*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-18327/1-A
Matrix: Water
Analysis Batch: 18690

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18327

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		06/30/20 23:11	07/01/20 18:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*81*		*46 - 136*	*06/30/20 23:11*	*07/01/20 18:39*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: LCS 410-18327/2-A
Matrix: Water
Analysis Batch: 18690

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18327

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.144		ug/L		112	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*78*		*46 - 136*

Lab Sample ID: LCSD 410-18327/3-A
Matrix: Water
Analysis Batch: 18690

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 18327

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.140		ug/L		109	60 - 140	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*73*		*46 - 136*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 410-17820/1-A
Matrix: Water
Analysis Batch: 19061

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17820

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		0.10	0.037	mg/L		06/29/20 20:22	06/30/20 17:09	1
>C22-C44 (1C)	ND		0.10	0.037	mg/L		06/29/20 20:22	06/30/20 17:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*43*		*21 - 116*	*06/29/20 20:22*	*06/30/20 17:09*	*1*
o- terphenyl (Surr) (1C)	*74*		*51 - 126*	*06/29/20 20:22*	*06/30/20 17:09*	*1*

Lab Sample ID: LCS 410-17820/2-A
Matrix: Water
Analysis Batch: 19061

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17820

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
DRO (C10-C28) (1C)			0.800	0.494		mg/L		62	48 - 116		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Chlorobenzene (Surr) (1C)	*52*		*21 - 116*
o- terphenyl (Surr) (1C)	*90*		*51 - 126*

Lab Sample ID: LCSD 410-17820/3-A
Matrix: Water
Analysis Batch: 19061

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 17820

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (C10-C28) (1C)			0.800	0.337	*L *1	mg/L		42	48 - 116	38	20

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: LCSD 410-17820/3-A
Matrix: Water
Analysis Batch: 19061

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 17820

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Chlorobenzene (Surr) (1C)	*33*		*21 - 116*
o- terphenyl (Surr) (1C)	*55*		*51 - 126*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 410-17316/28
Matrix: Water
Analysis Batch: 17316

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1.0	0.30	mg/L			06/26/20 20:35	1
Chloride	ND		0.40	0.20	mg/L			06/26/20 20:35	1

Lab Sample ID: LCS 410-17316/27
Matrix: Water
Analysis Batch: 17316

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	7.50	8.20		mg/L		109	90 - 110
Chloride	3.00	2.82		mg/L		94	90 - 110

Lab Sample ID: MB 410-17568/32
Matrix: Water
Analysis Batch: 17568

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND		0.10	0.050	mg/L			06/26/20 20:35	1

Lab Sample ID: LCS 410-17568/31
Matrix: Water
Analysis Batch: 17568

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Nitrate	0.750	0.691		mg/L		92	90 - 110

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-17004/1-A
Matrix: Water
Analysis Batch: 17837

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 17004

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.20	0.096	mg/L		06/26/20 08:05	06/29/20 19:26	1
Iron	ND		0.20	0.040	mg/L		06/26/20 08:05	06/29/20 19:26	1
Magnesium	ND		0.10	0.040	mg/L		06/26/20 08:05	06/29/20 19:26	1
Potassium	ND		0.50	0.20	mg/L		06/26/20 08:05	06/29/20 19:26	1
Sodium	ND		1.0	0.24	mg/L		06/26/20 08:05	06/29/20 19:26	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 410-17004/2-A
Matrix: Water
Analysis Batch: 17837

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 17004

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	0.402	0.438		mg/L		109	80 - 120
Potassium	5.60	5.60		mg/L		100	80 - 120

Lab Sample ID: LCS 410-17004/2-A
Matrix: Water
Analysis Batch: 19036

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 17004

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	0.400	0.422		mg/L		105	80 - 120
Magnesium	0.200	0.219		mg/L		109	80 - 120

Lab Sample ID: LCS 410-17004/2-A
Matrix: Water
Analysis Batch: 24724

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 17004

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sodium	2.00	2.09		mg/L		105	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 410-18654/1-A
Matrix: Water
Analysis Batch: 22862

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18654

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		07/01/20 16:32	07/15/20 11:31	1

Lab Sample ID: LCS 410-18654/2-A
Matrix: Water
Analysis Batch: 22862

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18654

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	4.92	5.35		ug/L		109	90 - 110

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 410-17703/31
Matrix: Water
Analysis Batch: 17703

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8.0	8.0	mg/L			06/26/20 21:38	1

Lab Sample ID: LCS 410-17703/32
Matrix: Water
Analysis Batch: 17703

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	189	170		mg/L		90	82 - 106

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 410-17170/1
Matrix: Water
Analysis Batch: 17170

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.30	0.10	mg/L			06/26/20 15:03	1

Lab Sample ID: LCS 410-17170/11
Matrix: Water
Analysis Batch: 17170

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide			1.00	1.02		mg/L		102	90 - 110		

Method: SM4500 NH3 - Ammonia

Lab Sample ID: MB 410-17577/1-A
Matrix: Water
Analysis Batch: 17643

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17577

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia-N	ND		0.75	0.25	mg/L		06/29/20 09:57	06/29/20 12:36	1

Lab Sample ID: LCS 410-17577/2-A
Matrix: Water
Analysis Batch: 17643

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17577

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia-N			10.0	9.93		mg/L		99	93 - 100		

Lab Sample ID: LCSD 410-17577/3-A
Matrix: Water
Analysis Batch: 17643

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 17577

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia-N			10.0	9.81		mg/L		98	93 - 100	1	5

GC/MS VOA

Analysis Batch: 21187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5704-1 - DL	CD-10-W-45.0-20200624	Total/NA	Water	8260C/UST	
410-5704-1	CD-10-W-45.0-20200624	Total/NA	Water	8260C/UST	
MB 410-21187/5	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-21187/6	Lab Control Sample	Total/NA	Water	8260C/UST	
LCS 410-21187/8	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-21187/7	Lab Control Sample Dup	Total/NA	Water	8260C/UST	
LCSD 410-21187/9	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

GC/MS Semi VOA

Prep Batch: 17382

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5704-1	CD-10-W-45.0-20200624	Total/NA	Water	3510C	
MB 410-17382/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-17382/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-17382/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 17575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5704-1	CD-10-W-45.0-20200624	Total/NA	Water	8270D	17382
MB 410-17382/1-A	Method Blank	Total/NA	Water	8270D	17382
LCS 410-17382/2-A	Lab Control Sample	Total/NA	Water	8270D	17382
LCSD 410-17382/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	17382

GC VOA

Prep Batch: 18513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5704-1	CD-10-W-45.0-20200624	Total/NA	Water	RSK-175	
MB 410-18513/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-18513/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-18513/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 18516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5704-1	CD-10-W-45.0-20200624	Total/NA	Water	RSK-175	18513
MB 410-18513/1-A	Method Blank	Total/NA	Water	RSK-175	18513
LCS 410-18513/2-A	Lab Control Sample	Total/NA	Water	RSK-175	18513
LCSD 410-18513/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	18513

Analysis Batch: 18982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5704-1 - DL	CD-10-W-45.0-20200624	Total/NA	Water	RSK-175	18996
MB 410-18996/1-A	Method Blank	Total/NA	Water	RSK-175	18996
LCS 410-18996/2-A	Lab Control Sample	Total/NA	Water	RSK-175	18996
LCSD 410-18996/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	18996

Prep Batch: 18996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5704-1 - DL	CD-10-W-45.0-20200624	Total/NA	Water	RSK-175	
MB 410-18996/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-18996/2-A	Lab Control Sample	Total/NA	Water	RSK-175	

GC VOA (Continued)

Prep Batch: 18996 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 410-18996/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

GC Semi VOA

Prep Batch: 17820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5704-1	CD-10-W-45.0-20200624	Total/NA	Water	3510C	
MB 410-17820/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-17820/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-17820/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 18327

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5704-1	CD-10-W-45.0-20200624	Total/NA	Water	8011	
MB 410-18327/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-18327/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-18327/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 18690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5704-1	CD-10-W-45.0-20200624	Total/NA	Water	8011	18327
MB 410-18327/1-A	Method Blank	Total/NA	Water	8011	18327
LCS 410-18327/2-A	Lab Control Sample	Total/NA	Water	8011	18327
LCSD 410-18327/3-A	Lab Control Sample Dup	Total/NA	Water	8011	18327

Analysis Batch: 19061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5704-1	CD-10-W-45.0-20200624	Total/NA	Water	8015C	17820
MB 410-17820/1-A	Method Blank	Total/NA	Water	8015C	17820
LCS 410-17820/2-A	Lab Control Sample	Total/NA	Water	8015C	17820
LCSD 410-17820/3-A	Lab Control Sample Dup	Total/NA	Water	8015C	17820

Analysis Batch: 28450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5704-1	CD-10-W-45.0-20200624	Total/NA	Water	Total TPH	

HPLC/IC

Analysis Batch: 17316

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5704-1	CD-10-W-45.0-20200624	Total/NA	Water	300.0	
MB 410-17316/28	Method Blank	Total/NA	Water	300.0	
LCS 410-17316/27	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 17568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5704-1	CD-10-W-45.0-20200624	Total/NA	Water	300.0	
MB 410-17568/32	Method Blank	Total/NA	Water	300.0	
LCS 410-17568/31	Lab Control Sample	Total/NA	Water	300.0	

HPLC/IC

Analysis Batch: 17569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5704-1	CD-10-W-45.0-20200624	Total/NA	Water	300.0	

Metals

Prep Batch: 17004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5704-1	CD-10-W-45.0-20200624	Total Recoverable	Water	3005A	
MB 410-17004/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-17004/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Filtration Batch: 17660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5704-1	CD-10-W-45.0-20200624	Dissolved	Water	Filtration	

Analysis Batch: 17837

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5704-1	CD-10-W-45.0-20200624	Total Recoverable	Water	6010C	17004
MB 410-17004/1-A	Method Blank	Total Recoverable	Water	6010C	17004
LCS 410-17004/2-A	Lab Control Sample	Total Recoverable	Water	6010C	17004

Analysis Batch: 18278

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5704-1	CD-10-W-45.0-20200624	Total Recoverable	Water	6010C	17004

Prep Batch: 18654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5704-1	CD-10-W-45.0-20200624	Dissolved	Water	Non-Digest Prep	17660
MB 410-18654/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-18654/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	

Analysis Batch: 19036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5704-1	CD-10-W-45.0-20200624	Total Recoverable	Water	6010C	17004
LCS 410-17004/2-A	Lab Control Sample	Total Recoverable	Water	6010C	17004

Analysis Batch: 22862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5704-1	CD-10-W-45.0-20200624	Dissolved	Water	6020A	18654
MB 410-18654/1-A	Method Blank	Total/NA	Water	6020A	18654
LCS 410-18654/2-A	Lab Control Sample	Total/NA	Water	6020A	18654

Analysis Batch: 24724

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5704-1	CD-10-W-45.0-20200624	Total Recoverable	Water	6010C	17004
LCS 410-17004/2-A	Lab Control Sample	Total Recoverable	Water	6010C	17004

General Chemistry

Analysis Batch: 17170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5704-1	CD-10-W-45.0-20200624	Total/NA	Water	SM 4500 S2 D	
MB 410-17170/1	Method Blank	Total/NA	Water	SM 4500 S2 D	

General Chemistry (Continued)

Analysis Batch: 17170 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-17170/11	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	

Prep Batch: 17577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5704-1	CD-10-W-45.0-20200624	Total/NA	Water	SM 4500 NH3 B	
MB 410-17577/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 B	
LCS 410-17577/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 B	
LCSD 410-17577/3-A	Lab Control Sample Dup	Total/NA	Water	SM 4500 NH3 B	

Analysis Batch: 17643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5704-1	CD-10-W-45.0-20200624	Total/NA	Water	SM4500 NH3	17577
MB 410-17577/1-A	Method Blank	Total/NA	Water	SM4500 NH3	17577
LCS 410-17577/2-A	Lab Control Sample	Total/NA	Water	SM4500 NH3	17577
LCSD 410-17577/3-A	Lab Control Sample Dup	Total/NA	Water	SM4500 NH3	17577

Analysis Batch: 17703

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-5704-1	CD-10-W-45.0-20200624	Total/NA	Water	SM 2320B	
MB 410-17703/31	Method Blank	Total/NA	Water	SM 2320B	
LCS 410-17703/32	Lab Control Sample	Total/NA	Water	SM 2320B	

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-5704-1

Client Sample ID: CD-10-W-45.0-20200624

Date Collected: 06/24/20 12:30
Date Received: 06/25/20 16:10

Lab Sample ID: 410-5704-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST	DL	10	21187	07/10/20 16:24	TK5O	ELLE
Total/NA	Analysis	8260C/UST		1	21187	07/10/20 16:48	TK5O	ELLE
Total/NA	Prep	3510C			17382	06/28/20 12:08	UKQ8	ELLE
Total/NA	Analysis	8270D		1	17575	06/29/20 17:04	ULM3	ELLE
Total/NA	Prep	RSK-175	DL		18996	07/02/20 11:01	IYN5	ELLE
Total/NA	Analysis	RSK-175	DL	100	18982	07/03/20 02:07	IYN5	ELLE
Total/NA	Prep	RSK-175			18513	07/01/20 09:40	IYN5	ELLE
Total/NA	Analysis	RSK-175		1	18516	07/01/20 19:08	IYN5	ELLE
Total/NA	Prep	8011			18327	06/30/20 23:11	K2IL	ELLE
Total/NA	Analysis	8011		1	18690	07/01/20 21:47	AC3T	ELLE
Total/NA	Prep	3510C			17820	06/29/20 20:22	UKL2	ELLE
Total/NA	Analysis	8015C		1	19061	06/30/20 18:13	YHQ2	ELLE
Total/NA	Analysis	Total TPH		1	28450	07/31/20 09:17	KP5X	ELLE
Total/NA	Analysis	300.0		5	17316	06/26/20 13:10	IGI3	ELLE
Total/NA	Analysis	300.0		5	17568	06/26/20 13:10	IGI3	ELLE
Total/NA	Analysis	300.0		5	17569	06/26/20 13:10	GJ35	ELLE
Total Recoverable	Prep	3005A			17004	06/26/20 08:05	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	17837	06/29/20 20:10	UEFS	ELLE
Total Recoverable	Prep	3005A			17004	06/26/20 08:05	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	18278	06/30/20 17:28	UEFS	ELLE
Total Recoverable	Prep	3005A			17004	06/26/20 08:05	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	24724	07/21/20 10:49	LR7D	ELLE
Total Recoverable	Prep	3005A			17004	06/26/20 08:05	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	19036	07/02/20 11:50	LR7D	ELLE
Dissolved	Filtration	Filtration			17660	06/29/20 13:03	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			18654	07/01/20 16:32	UJLA	ELLE
Dissolved	Analysis	6020A		1	22862	07/15/20 11:49	S2GN	ELLE
Total/NA	Analysis	SM 2320B		1	17703	06/26/20 22:28	DI9Q	ELLE
Total/NA	Analysis	SM 4500 S2 D		1	17170	06/26/20 15:03	P8DZ	ELLE
Total/NA	Prep	SM 4500 NH3 B			17577	06/29/20 09:57	UYB0	ELLE
Total/NA	Analysis	SM4500 NH3		1	17643	06/29/20 12:36	UYB0	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp. Job ID: 410-5704-1
Project/Site: PHL Penrose Drilling Sampling

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015C	3510C	Water	>C12-C22 (1C)
8015C	3510C	Water	>C22-C44 (1C)
Total TPH		Water	Total Reported TPH

Method Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-5704-1

Method	Method Description	Protocol	Laboratory
8260C/UST	Volatile Organic Compounds (GC/MS)	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
RSK-175	Dissolved Gases (GC)	RSK	ELLE
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	ELLE
Total TPH	Total TPH	None	ELLE
300.0	Anions, Ion Chromatography	MCAWW	ELLE
6010C	Metals (ICP)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
SM 2320B	Alkalinity	SM	ELLE
SM 4500 S2 D	Sulfide, Total	SM	ELLE
SM4500 NH3	Ammonia	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
8011	Microextraction	SW846	ELLE
Filtration	Sample Filtration	None	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE
SM 4500 NH3 B	Distillation, Ammonia	SM	ELLE

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-5704-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-5704-1	CD-10-W-45.0-20200624	Water	06/24/20 12:30	06/25/20 16:10	

Environmental Analysis Custody

eurofins | Lancaster Laboratories Environmental

Acct. # _____

410-5704 Chain of Custody

nental use only

COC # 594050

Client Information

Client: Evergreen c/o Stantec	Acct. #: 16657
Project Name/#: PHL-Penrose Drilling Sampling	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 2134026002
Sampler: D Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

For Lab Use Only
FSC:_____
SCR#:_____

Sample Identification	Collected Date	Collected Time	Grab	Composite	Matrix: Soil/Sediment	Tissue	Water	Ground	Potable	Surface	NPDES	Other:	Total # of Containers	Custom TPH w/ Ranges	TPH-GRO 8260/moisture	Metals 6010 Lead (dissolved 6020/Total 6010B)	Sulfide	Chloride, Nitrate Nitrogen, Sulfate	Volatile Halogenated Hydrocarbons	Ammonia Nitrogen	Total Alkalinity to 4.5	*Short List VOCs 8260 including TBA 8260 + EDB 8011	*Short List SVOCs 8270
CD-16-4-45.0-20200624	6/24/20	1230	X				X						17	X	X	X	X	X	X	X	X	X	X

Analysis Requested — Preservation and Filtration Codes

Preservation Codes

H=HCl	T=Thiosulfate
N=HNO_3	B=NaOH
S=H_2SO_4	P=H_3PO_4
F=Field Filtered	O=Other

Remarks

Refer to Evergreen Petroleum Short List for list of analytes

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: Andrew.Klingbeil@Stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)

Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13

NYSDEC Category A or B | MA MCP | CT RCP

Relinquished by	Date	Time	Received by	Date	Time
Dave	6/25/20	1115	Pierre	6/25/2	11:15
Pierre	6/25/20	1515			

EDD Required? Yes No

If yes, format: EQUIS

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____

Temperature upon receipt 1.8 °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT https://www.eurofinsus.com/coc

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0718

Login Sample Receipt Checklist

Client: Stantec Consulting Corp. Job Number: 410-5704-1

Login Number: 5704 **List Source: Eurofins Lancaster Laboratories Env**
List Number: 1
Creator: Mathers, William

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-6241-1
Client Project/Site: PHL Penrose Drilling Sampling
Revision: 1

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Andrew Klingbeil

Authorized for release by:
10/19/2020 12:23:25 PM

Amek Carter, Project Manager
(717)556-7252
amekcarter@eurofinsus.com

LINKS

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Have a Question? Ask The Expert

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

* QC recoveries that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result.

* Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.

* Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
10/19/2020 12:23:25 PM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 7
Client Sample Results 8
Surrogate Summary 10
QC Sample Results 12
QC Association Summary 20
Lab Chronicle 23
Certification Summary 24
Method Summary 25
Sample Summary 26
Chain of Custody 27
Receipt Checklists 29

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-6241-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
^c	CCV Recovery is outside acceptance limits.

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

HPLC/IC

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-6241-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-6241-1

Revision
The report being provided is a revision of the original report sent on 8/26/2020. The report (revision 1) is being revised due to: Sample ID Change - Correct sample ID.

Receipt
The sample was received on 6/30/2020 4:54 PM; the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.7º C.

Receipt Exceptions
Trip blank vials were not received by the laboratory for this sample group.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: The continuing calibration verification (CCV) analyzed in batch 410-20289 was outside the method criteria for the following analyte(s): Benzo[g,h,i]perylene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated. The associated sample is CD-6B-W-450-20200630 (410-6241-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HPLC/IC
Method 300.0: The following sample was analyzed outside of analytical holding time due to lab error: CD-6B-W-450-20200630 (410-6241-1).

Method 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: CD-6B-W-450-20200630 (410-6241-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC VOA
Method RSK-175: The method requirement for no headspace was not met for the Methane analysis. The following RSK_175 sample was analyzed with significant headspace in the sample container(s): CD-6B-W-450-20200630 (410-6241-1). Significant headspace is defined as a bubble greater than 6 mm in diameter.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method Filtration: The following samples requested dissolved metals and were not filtered in the field: CD-6B-W-450-20200630 (410-6241-1). These samples were filtered and preserved upon receipt to the laboratory.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Job ID: 410-6241-1 (Continued)

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Conti

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-6241-1

Client Sample ID: CD-6B-W-45.0-20200630 — Lab Sample ID: 410-6241-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	150		25	5.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	58		25	1.5	ug/L	5		8260C/UST	Total/NA
Benzene	270		5.0	1.0	ug/L	5		8260C/UST	Total/NA
C4-C12-TPH-GRO	5200		250	150	ug/L	5		8260C/UST	Total/NA
Ethylbenzene	44		5.0	2.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	10	J	25	1.0	ug/L	5		8260C/UST	Total/NA
Methyl tertiary butyl ether	9.3		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Toluene	69		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	320		30	7.0	ug/L	5		8260C/UST	Total/NA
Naphthalene	22		0.52	0.10	ug/L	1		8270D	Total/NA
Ethane (1C)	1.1	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	5600		250	150	ug/L	50		RSK-175	Total/NA
>C12-C22 (1C)	3.3		0.095	0.035	mg/L	1		8015C	Total/NA
>C22-C44 (1C)	0.32		0.095	0.035	mg/L	1		8015C	Total/NA
Total Reported TPH	3.6		0.20	0.074	mg/L	1		Total TPH	Total/NA
Chloride	1300		4.0	0.46	mg/L	33		300.0	Total/NA
Sulfate	9.3		0.60	0.35	mg/L	1		300.0	Total/NA
Calcium	70		0.20	0.096	mg/L	1		6010C	Total Recoverable
Iron	38		0.20	0.040	mg/L	1		6010C	Total Recoverable
Magnesium	43		0.10	0.040	mg/L	1		6010C	Total Recoverable
Potassium	9.9		0.50	0.20	mg/L	1		6010C	Total Recoverable
Sodium	820		5.0	1.2	mg/L	5		6010C	Total Recoverable
Lead	11		0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	240		8.0	8.0	mg/L	1		SM 2320B	Total/NA
Ammonia-N	1.4		1.1	0.36	mg/L	1		SM4500 NH3	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CD-6B-W-45.0-20200630

Date Collected: 06/30/20 10:20
Date Received: 06/30/20 16:54

Lab Sample ID: 410-6241-1

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**150**		25	5.0	ug/L			07/09/20 00:07	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			07/09/20 00:07	5
1,3,5-Trimethylbenzene	**58**		25	1.5	ug/L			07/09/20 00:07	5
Benzene	**270**		5.0	1.0	ug/L			07/09/20 00:07	5
C4-C12-TPH-GRO	**5200**		250	150	ug/L			07/09/20 00:07	5
Ethylbenzene	**44**		5.0	2.0	ug/L			07/09/20 00:07	5
Isopropylbenzene	**10**	**J**	25	1.0	ug/L			07/09/20 00:07	5
Methyl tertiary butyl ether	**9.3**		5.0	1.0	ug/L			07/09/20 00:07	5
Toluene	**69**		5.0	1.0	ug/L			07/09/20 00:07	5
Xylenes, Total	**320**		30	7.0	ug/L			07/09/20 00:07	5
2-Methyl-2-propanol	ND		250	60	ug/L			07/09/20 00:07	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*80 - 120*		*07/09/20 00:07*	*5*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*07/09/20 00:07*	*5*
Dibromofluoromethane (Surr)	*117*		*80 - 120*		*07/09/20 00:07*	*5*
Toluene-d8 (Surr)	*98*		*80 - 120*		*07/09/20 00:07*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.52	0.10	ug/L		07/04/20 07:04	07/08/20 16:48	1
Benzo[a]anthracene	ND		0.52	0.10	ug/L		07/04/20 07:04	07/08/20 16:48	1
Benzo[a]pyrene	ND		0.52	0.10	ug/L		07/04/20 07:04	07/08/20 16:48	1
Benzo[b]fluoranthene	ND		0.52	0.10	ug/L		07/04/20 07:04	07/08/20 16:48	1
Benzo[g,h,i]perylene	ND	^c	0.52	0.10	ug/L		07/04/20 07:04	07/08/20 16:48	1
Chrysene	ND		0.52	0.10	ug/L		07/04/20 07:04	07/08/20 16:48	1
Fluorene	ND		0.52	0.10	ug/L		07/04/20 07:04	07/08/20 16:48	1
Naphthalene	**22**		0.52	0.10	ug/L		07/04/20 07:04	07/08/20 16:48	1
Phenanthrene	ND		0.52	0.10	ug/L		07/04/20 07:04	07/08/20 16:48	1
Pyrene	ND		0.52	0.10	ug/L		07/04/20 07:04	07/08/20 16:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*68*		*44 - 102*	*07/04/20 07:04*	*07/08/20 16:48*	*1*
Nitrobenzene-d5 (Surr)	*71*		*38 - 113*	*07/04/20 07:04*	*07/08/20 16:48*	*1*
p-Terphenyl-d14 (Surr)	*49*		*34 - 128*	*07/04/20 07:04*	*07/08/20 16:48*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**1.1**	**J**	5.0	1.0	ug/L		07/07/20 10:00	07/07/20 16:46	1
Ethene (1C)	ND		5.0	1.0	ug/L		07/07/20 10:00	07/07/20 16:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*75*		*28 - 140*	*07/07/20 10:00*	*07/07/20 16:46*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**5600**		250	150	ug/L		07/09/20 08:52	07/09/20 12:18	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*90*		*28 - 140*	*07/09/20 08:52*	*07/09/20 12:18*	*50*

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-6241-1

Client Sample ID: CD-6B-W-45.0-20200630

Date Collected: 06/30/20 10:20
Date Received: 06/30/20 16:54

Lab Sample ID: 410-6241-1

Matrix: Water

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	3.3		0.095	0.035	mg/L		07/02/20 08:35	07/06/20 14:17	1
>C22-C44 (1C)	0.32		0.095	0.035	mg/L		07/02/20 08:35	07/06/20 14:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*26*		*21 - 116*	*07/02/20 08:35*	*07/06/20 14:17*	*1*
o- terphenyl (Surr) (1C)	*69*		*51 - 126*	*07/02/20 08:35*	*07/06/20 14:17*	*1*

Method: Total TPH - Total TPH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Reported TPH	3.6		0.20	0.074	mg/L			07/31/20 09:17	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1300		4.0	0.46	mg/L			07/09/20 20:17	33
Nitrogen, Nitrate	ND	H	0.50	0.25	mg/L			07/02/20 10:36	5
Sulfate	9.3		0.60	0.35	mg/L			07/09/20 14:35	1

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	70		0.20	0.096	mg/L		07/01/20 13:14	07/01/20 23:30	1
Iron	38		0.20	0.040	mg/L		07/01/20 13:14	07/01/20 23:30	1
Magnesium	43		0.10	0.040	mg/L		07/01/20 13:14	07/01/20 23:30	1
Potassium	9.9		0.50	0.20	mg/L		07/01/20 13:14	07/01/20 23:30	1
Sodium	820		5.0	1.2	mg/L		07/01/20 13:14	07/02/20 22:20	5

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	11		0.52	0.073	ug/L		07/02/20 13:47	07/08/20 18:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	240		8.0	8.0	mg/L			07/02/20 01:15	1
Sulfide	ND		0.30	0.10	mg/L			07/06/20 12:00	1
Ammonia-N	1.4		1.1	0.36	mg/L		07/08/20 11:00	07/08/20 12:22	1

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-6241-1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-6241-1	CD-6B-W-45.0-20200630	97	100	117	98
LCS 410-20439/11	Lab Control Sample	98	95	109	96
LCS 410-20439/14	Lab Control Sample	90	113	105	111
LCSD 410-20439/12	Lab Control Sample Dup	90	109	101	106
LCSD 410-20439/15	Lab Control Sample Dup	88	101	103	85
MB 410-20439/13	Method Blank	94	98	107	94

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(44-102)	(38-113)	(34-128)
410-6241-1	CD-6B-W-45.0-20200630	68	71	49
LCS 410-19316/2-A	Lab Control Sample	73	73	77
LCSD 410-19316/3-A	Lab Control Sample Dup	75	76	87
MB 410-19316/1-A	Method Blank	72	73	95

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		Propene1
Lab Sample ID	Client Sample ID	(28-140)
410-6241-1	CD-6B-W-45.0-20200630	75
410-6241-1 - DL	CD-6B-W-45.0-20200630	90
LCS 410-19936/2-A	Lab Control Sample	103
LCS 410-20820/2-A	Lab Control Sample	101
LCSD 410-19936/3-A	Lab Control Sample Dup	102
LCSD 410-20820/3-A	Lab Control Sample Dup	100
MB 410-19936/1-A	Method Blank	99
MB 410-20820/1-A	Method Blank	102

Surrogate Legend

Propene = Propene

Surrogate Summary

Client: Stantec Consulting Corp. Job ID: 410-6241-1
Project/Site: PHL Penrose Drilling Sampling

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	CBNZ1 (21-116)	OTP1 (51-126)								
410-6241-1	CD-6B-W-45.0-20200630	26	69								
LCS 410-18859/2-A	Lab Control Sample	45	95								
LCSD 410-18859/3-A	Lab Control Sample Dup	50	92								
MB 410-18859/1-A	Method Blank	33	81								

Surrogate Legend

CBNZ = Chlorobenzene (Surr)
OTP = o- terphenyl (Surr)

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-20439/13
Matrix: Water
Analysis Batch: 20439

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			07/08/20 20:53	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			07/08/20 20:53	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			07/08/20 20:53	1
Benzene	ND		1.0	0.20	ug/L			07/08/20 20:53	1
C4-C12-TPH-GRO	ND		50	29	ug/L			07/08/20 20:53	1
Ethylbenzene	ND		1.0	0.40	ug/L			07/08/20 20:53	1
Isopropylbenzene	ND		5.0	0.20	ug/L			07/08/20 20:53	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			07/08/20 20:53	1
Toluene	ND		1.0	0.20	ug/L			07/08/20 20:53	1
Xylenes, Total	ND		6.0	1.4	ug/L			07/08/20 20:53	1
2-Methyl-2-propanol	ND		50	12	ug/L			07/08/20 20:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*80 - 120*		*07/08/20 20:53*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*07/08/20 20:53*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 120*		*07/08/20 20:53*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*07/08/20 20:53*	*1*

Lab Sample ID: LCS 410-20439/11
Matrix: Water
Analysis Batch: 20439

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	20.0	16.3		ug/L		81	75 - 120
1,2-Dichloroethane	20.0	17.7		ug/L		88	73 - 124
1,3,5-Trimethylbenzene	20.0	16.3		ug/L		82	75 - 120
Benzene	20.0	19.0		ug/L		95	80 - 120
Ethylbenzene	20.0	17.4		ug/L		87	80 - 120
Isopropylbenzene	20.0	16.8		ug/L		84	80 - 120
Methyl tertiary butyl ether	20.0	16.4		ug/L		82	69 - 122
Naphthalene	20.0	14.8		ug/L		74	53 - 124
Toluene	20.0	16.9		ug/L		84	80 - 120
Xylenes, Total	60.0	48.9		ug/L		82	80 - 120
2-Methyl-2-propanol	200	157		ug/L		78	60 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 120*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*
Dibromofluoromethane (Surr)	*109*		*80 - 120*
Toluene-d8 (Surr)	*96*		*80 - 120*

Lab Sample ID: LCS 410-20439/14
Matrix: Water
Analysis Batch: 20439

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C4-C12-TPH-GRO	1000	816		ug/L		82	67 - 120

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-20439/14
Matrix: Water
Analysis Batch: 20439

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*
4-Bromofluorobenzene (Surr)	*113*		*80 - 120*
Dibromofluoromethane (Surr)	*105*		*80 - 120*
Toluene-d8 (Surr)	*111*		*80 - 120*

Lab Sample ID: LCSD 410-20439/12
Matrix: Water
Analysis Batch: 20439

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene			20.0	17.1		ug/L		86	75 - 120	5	30
1,2-Dichloroethane			20.0	16.9		ug/L		84	73 - 124	5	30
1,3,5-Trimethylbenzene			20.0	17.0		ug/L		85	75 - 120	4	30
Benzene			20.0	17.1		ug/L		85	80 - 120	10	30
Ethylbenzene			20.0	18.3		ug/L		91	80 - 120	5	30
Isopropylbenzene			20.0	18.7		ug/L		93	80 - 120	11	30
Methyl tertiary butyl ether			20.0	17.1		ug/L		86	69 - 122	4	30
Naphthalene			20.0	14.2		ug/L		71	53 - 124	4	30
Toluene			20.0	18.2		ug/L		91	80 - 120	7	30
Xylenes, Total			60.0	57.0		ug/L		95	80 - 120	15	30
2-Methyl-2-propanol			200	177		ug/L		88	60 - 130	12	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*
4-Bromofluorobenzene (Surr)	*109*		*80 - 120*
Dibromofluoromethane (Surr)	*101*		*80 - 120*
Toluene-d8 (Surr)	*106*		*80 - 120*

Lab Sample ID: LCSD 410-20439/15
Matrix: Water
Analysis Batch: 20439

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C4-C12-TPH-GRO			1000	806		ug/L		81	67 - 120	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*80 - 120*
Toluene-d8 (Surr)	*85*		*80 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-19316/1-A
Matrix: Water
Analysis Batch: 20289

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19316

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		07/04/20 07:04	07/08/20 11:45	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		07/04/20 07:04	07/08/20 11:45	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		07/04/20 07:04	07/08/20 11:45	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		07/04/20 07:04	07/08/20 11:45	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		07/04/20 07:04	07/08/20 11:45	1
Chrysene	ND		0.50	0.10	ug/L		07/04/20 07:04	07/08/20 11:45	1
Fluorene	ND		0.50	0.10	ug/L		07/04/20 07:04	07/08/20 11:45	1
Naphthalene	ND		0.50	0.10	ug/L		07/04/20 07:04	07/08/20 11:45	1
Phenanthrene	ND		0.50	0.10	ug/L		07/04/20 07:04	07/08/20 11:45	1
Pyrene	ND		0.50	0.10	ug/L		07/04/20 07:04	07/08/20 11:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*72*		*44 - 102*	*07/04/20 07:04*	*07/08/20 11:45*	*1*
Nitrobenzene-d5 (Surr)	*73*		*38 - 113*	*07/04/20 07:04*	*07/08/20 11:45*	*1*
p-Terphenyl-d14 (Surr)	*95*		*34 - 128*	*07/04/20 07:04*	*07/08/20 11:45*	*1*

Lab Sample ID: LCS 410-19316/2-A
Matrix: Water
Analysis Batch: 20289

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19316

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Anthracene			50.1	43.8		ug/L		87	67 - 116		
Benzo[a]anthracene			50.0	46.1		ug/L		92	68 - 123		
Benzo[a]pyrene			50.2	41.4		ug/L		83	71 - 117		
Benzo[b]fluoranthene			50.1	44.7		ug/L		89	69 - 121		
Benzo[g,h,i]perylene			50.1	34.9		ug/L		70	60 - 119		
Chrysene			50.0	44.0		ug/L		88	65 - 121		
Fluorene			50.1	42.1		ug/L		84	56 - 115		
Naphthalene			50.4	36.9		ug/L		73	51 - 102		
Phenanthrene			50.2	45.0		ug/L		90	65 - 113		
Pyrene			50.4	44.0		ug/L		87	65 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*73*		*44 - 102*
Nitrobenzene-d5 (Surr)	*73*		*38 - 113*
p-Terphenyl-d14 (Surr)	*77*		*34 - 128*

Lab Sample ID: LCSD 410-19316/3-A
Matrix: Water
Analysis Batch: 20289

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 19316

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Anthracene			50.1	45.2		ug/L		90	67 - 116	3	30
Benzo[a]anthracene			50.0	49.8		ug/L		99	68 - 123	8	30
Benzo[a]pyrene			50.2	44.5		ug/L		89	71 - 117	7	30
Benzo[b]fluoranthene			50.1	46.8		ug/L		93	69 - 121	5	30
Benzo[g,h,i]perylene			50.1	37.5		ug/L		75	60 - 119	7	30
Chrysene			50.0	47.4		ug/L		95	65 - 121	7	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-19316/3-A
Matrix: Water
Analysis Batch: 20289

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 19316

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluorene			50.1	43.7		ug/L		87	56 - 115	4	30
Naphthalene			50.4	38.6		ug/L		77	51 - 102	4	30
Phenanthrene			50.2	46.2		ug/L		92	65 - 113	3	30
Pyrene			50.4	46.3		ug/L		92	65 - 115	5	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*75*		*44 - 102*
Nitrobenzene-d5 (Surr)	*76*		*38 - 113*
p-Terphenyl-d14 (Surr)	*87*		*34 - 128*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-19936/1-A
Matrix: Water
Analysis Batch: 19948

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19936

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		07/07/20 10:00	07/07/20 12:07	1
Ethene (1C)	ND		5.0	1.0	ug/L		07/07/20 10:00	07/07/20 12:07	1
Methane (1C)	ND		5.0	3.0	ug/L		07/07/20 10:00	07/07/20 12:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*99*		*28 - 140*	*07/07/20 10:00*	*07/07/20 12:07*	*1*

Lab Sample ID: LCS 410-19936/2-A
Matrix: Water
Analysis Batch: 19948

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19936

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethane (1C)			59.4	59.8		ug/L		101	85 - 115
Ethene (1C)			60.4	61.4		ug/L		102	83 - 115
Methane (1C)			59.4	63.7		ug/L		107	85 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*103*		*28 - 140*

Lab Sample ID: LCSD 410-19936/3-A
Matrix: Water
Analysis Batch: 19948

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 19936

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	57.5		ug/L		97	85 - 115	4	20
Ethene (1C)			60.4	59.1		ug/L		98	83 - 115	4	20
Methane (1C)			59.4	61.3		ug/L		103	85 - 115	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*102*		*28 - 140*

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: MB 410-20820/1-A
Matrix: Water
Analysis Batch: 20822

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20820

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		07/09/20 08:52	07/09/20 09:54	1
Ethene (1C)	ND		5.0	1.0	ug/L		07/09/20 08:52	07/09/20 09:54	1
Methane (1C)	ND		5.0	3.0	ug/L		07/09/20 08:52	07/09/20 09:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*102*		*28 - 140*	*07/09/20 08:52*	*07/09/20 09:54*	*1*

Lab Sample ID: LCS 410-20820/2-A
Matrix: Water
Analysis Batch: 20822

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20820

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	60.0		ug/L		101	85 - 115		
Ethene (1C)			60.4	61.8		ug/L		102	83 - 115		
Methane (1C)			59.4	63.1		ug/L		106	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*101*		*28 - 140*

Lab Sample ID: LCSD 410-20820/3-A
Matrix: Water
Analysis Batch: 20822

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20820

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	59.9		ug/L		101	85 - 115	0	20
Ethene (1C)			60.4	61.8		ug/L		102	83 - 115	0	20
Methane (1C)			59.4	62.8		ug/L		106	85 - 115	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*100*		*28 - 140*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 410-18859/1-A
Matrix: Water
Analysis Batch: 19868

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18859

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		0.10	0.037	mg/L		07/02/20 08:35	07/06/20 13:14	1
>C22-C44 (1C)	ND		0.10	0.037	mg/L		07/02/20 08:35	07/06/20 13:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*33*		*21 - 116*	*07/02/20 08:35*	*07/06/20 13:14*	*1*
o- terphenyl (Surr) (1C)	*81*		*51 - 126*	*07/02/20 08:35*	*07/06/20 13:14*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: LCS 410-18859/2-A
Matrix: Water
Analysis Batch: 19868

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18859

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
DRO (C10-C28) (1C)			0.800	0.414		mg/L		52	48 - 116		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Chlorobenzene (Surr) (1C)	*45*		*21 - 116*
o- terphenyl (Surr) (1C)	*95*		*51 - 126*

Lab Sample ID: LCSD 410-18859/3-A
Matrix: Water
Analysis Batch: 19868

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 18859

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (C10-C28) (1C)			0.800	0.406		mg/L		51	48 - 116	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Chlorobenzene (Surr) (1C)	*50*		*21 - 116*
o- terphenyl (Surr) (1C)	*92*		*51 - 126*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 410-26012/15
Matrix: Water
Analysis Batch: 26012

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND		0.10	0.050	mg/L			07/02/20 12:27	1

Lab Sample ID: LCS 410-26012/14
Matrix: Water
Analysis Batch: 26012

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrogen, Nitrate			0.750	0.723		mg/L		96	90 - 110		

Lab Sample ID: MB 460-706980/3
Matrix: Water
Analysis Batch: 706980

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.12	0.014	mg/L			07/09/20 10:14	1
Sulfate	ND		0.60	0.35	mg/L			07/09/20 10:14	1

Lab Sample ID: LCS 460-706980/5
Matrix: Water
Analysis Batch: 706980

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			3.20	3.21		mg/L		100	90 - 110		
Sulfate			4.80	5.28		mg/L		110	90 - 110		

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCSD 460-706980/6
Matrix: Water
Analysis Batch: 706980

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			3.20	3.20		mg/L		100	90 - 110	0	15
Sulfate			4.80	5.10		mg/L		106	90 - 110	3	15

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-18611/1-A
Matrix: Water
Analysis Batch: 18827

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 18611

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.20	0.096	mg/L		07/01/20 13:14	07/01/20 22:35	1
Iron	ND		0.20	0.040	mg/L		07/01/20 13:14	07/01/20 22:35	1
Magnesium	ND		0.10	0.040	mg/L		07/01/20 13:14	07/01/20 22:35	1
Potassium	ND		0.50	0.20	mg/L		07/01/20 13:14	07/01/20 22:35	1
Sodium	ND		1.0	0.24	mg/L		07/01/20 13:14	07/01/20 22:35	1

Lab Sample ID: LCS 410-18611/2-A
Matrix: Water
Analysis Batch: 18827

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 18611

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Calcium			0.400	0.407		mg/L		102	80 - 120		
Iron			0.402	0.412		mg/L		102	80 - 120		
Magnesium			0.200	0.207		mg/L		104	80 - 120		
Potassium			5.60	5.59		mg/L		100	80 - 120		
Sodium			2.00	2.07		mg/L		103	80 - 120		

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 410-19045/1-A
Matrix: Water
Analysis Batch: 20765

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19045

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		07/02/20 13:47	07/08/20 18:26	1

Lab Sample ID: LCS 410-19045/2-A
Matrix: Water
Analysis Batch: 20765

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19045

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			4.92	4.68		ug/L		95	90 - 110		

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 410-19065/35
Matrix: Water
Analysis Batch: 19065

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8.0	8.0	mg/L			07/01/20 23:49	1

Lab Sample ID: LCS 410-19065/36
Matrix: Water
Analysis Batch: 19065

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	189	166		mg/L		88	82 - 106

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 410-19580/1
Matrix: Water
Analysis Batch: 19580

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.30	0.10	mg/L			07/06/20 12:00	1

Lab Sample ID: LCS 410-19580/13
Matrix: Water
Analysis Batch: 19580

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	1.00	0.976		mg/L		98	90 - 110

Method: SM4500 NH3 - Ammonia

Lab Sample ID: MB 410-20413/1-A
Matrix: Water
Analysis Batch: 20430

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20413

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia-N	ND		0.75	0.25	mg/L		07/08/20 11:00	07/08/20 12:22	1

Lab Sample ID: LCS 410-20413/2-A
Matrix: Water
Analysis Batch: 20430

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20413

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia-N	500	496		mg/L		99	93 - 100

Lab Sample ID: LCSD 410-20413/3-A
Matrix: Water
Analysis Batch: 20430

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20413

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia-N	500	502		mg/L		100	93 - 100	1	5

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-6241-1

GC/MS VOA

Analysis Batch: 20439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6241-1	CD-6B-W-45.0-20200630	Total/NA	Water	8260C/UST	
MB 410-20439/13	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-20439/11	Lab Control Sample	Total/NA	Water	8260C/UST	
LCS 410-20439/14	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-20439/12	Lab Control Sample Dup	Total/NA	Water	8260C/UST	
LCSD 410-20439/15	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

GC/MS Semi VOA

Prep Batch: 19316

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6241-1	CD-6B-W-45.0-20200630	Total/NA	Water	3510C	
MB 410-19316/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-19316/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-19316/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 20289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6241-1	CD-6B-W-45.0-20200630	Total/NA	Water	8270D	19316
MB 410-19316/1-A	Method Blank	Total/NA	Water	8270D	19316
LCS 410-19316/2-A	Lab Control Sample	Total/NA	Water	8270D	19316
LCSD 410-19316/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	19316

GC VOA

Prep Batch: 19936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6241-1	CD-6B-W-45.0-20200630	Total/NA	Water	RSK-175	
MB 410-19936/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-19936/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-19936/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 19948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6241-1	CD-6B-W-45.0-20200630	Total/NA	Water	RSK-175	19936
MB 410-19936/1-A	Method Blank	Total/NA	Water	RSK-175	19936
LCS 410-19936/2-A	Lab Control Sample	Total/NA	Water	RSK-175	19936
LCSD 410-19936/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	19936

Prep Batch: 20820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6241-1 - DL	CD-6B-W-45.0-20200630	Total/NA	Water	RSK-175	
MB 410-20820/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-20820/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-20820/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 20822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6241-1 - DL	CD-6B-W-45.0-20200630	Total/NA	Water	RSK-175	20820
MB 410-20820/1-A	Method Blank	Total/NA	Water	RSK-175	20820
LCS 410-20820/2-A	Lab Control Sample	Total/NA	Water	RSK-175	20820
LCSD 410-20820/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	20820

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-6241-1

GC Semi VOA

Prep Batch: 18859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6241-1	CD-6B-W-45.0-20200630	Total/NA	Water	3510C	
MB 410-18859/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-18859/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-18859/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 19868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6241-1	CD-6B-W-45.0-20200630	Total/NA	Water	8015C	18859
MB 410-18859/1-A	Method Blank	Total/NA	Water	8015C	18859
LCS 410-18859/2-A	Lab Control Sample	Total/NA	Water	8015C	18859
LCSD 410-18859/3-A	Lab Control Sample Dup	Total/NA	Water	8015C	18859

Analysis Batch: 28450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6241-1	CD-6B-W-45.0-20200630	Total/NA	Water	Total TPH	

HPLC/IC

Analysis Batch: 26012

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6241-1	CD-6B-W-45.0-20200630	Total/NA	Water	300.0	
MB 410-26012/15	Method Blank	Total/NA	Water	300.0	
LCS 410-26012/14	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 706980

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6241-1	CD-6B-W-45.0-20200630	Total/NA	Water	300.0	
410-6241-1	CD-6B-W-45.0-20200630	Total/NA	Water	300.0	
MB 460-706980/3	Method Blank	Total/NA	Water	300.0	
LCS 460-706980/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 460-706980/6	Lab Control Sample Dup	Total/NA	Water	300.0	

Metals

Filtration Batch: 18585

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6241-1	CD-6B-W-45.0-20200630	Dissolved	Water	Filtration	

Prep Batch: 18611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6241-1	CD-6B-W-45.0-20200630	Total Recoverable	Water	3005A	
MB 410-18611/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-18611/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 18827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6241-1	CD-6B-W-45.0-20200630	Total Recoverable	Water	6010C	18611
MB 410-18611/1-A	Method Blank	Total Recoverable	Water	6010C	18611
LCS 410-18611/2-A	Lab Control Sample	Total Recoverable	Water	6010C	18611

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-6241-1

Metals

Prep Batch: 19045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6241-1	CD-6B-W-45.0-20200630	Dissolved	Water	Non-Digest Prep	18585
MB 410-19045/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-19045/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	

Analysis Batch: 19220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6241-1	CD-6B-W-45.0-20200630	Total Recoverable	Water	6010C	18611

Analysis Batch: 20765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6241-1	CD-6B-W-45.0-20200630	Dissolved	Water	6020A	19045
MB 410-19045/1-A	Method Blank	Total/NA	Water	6020A	19045
LCS 410-19045/2-A	Lab Control Sample	Total/NA	Water	6020A	19045

General Chemistry

Analysis Batch: 19065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6241-1	CD-6B-W-45.0-20200630	Total/NA	Water	SM 2320B	
MB 410-19065/35	Method Blank	Total/NA	Water	SM 2320B	
LCS 410-19065/36	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 19580

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6241-1	CD-6B-W-45.0-20200630	Total/NA	Water	SM 4500 S2 D	
MB 410-19580/1	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 410-19580/13	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	

Prep Batch: 20413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6241-1	CD-6B-W-45.0-20200630	Total/NA	Water	SM 4500 NH3 B	
MB 410-20413/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 B	
LCS 410-20413/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 B	
LCSD 410-20413/3-A	Lab Control Sample Dup	Total/NA	Water	SM 4500 NH3 B	

Analysis Batch: 20430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6241-1	CD-6B-W-45.0-20200630	Total/NA	Water	SM4500 NH3	20413
MB 410-20413/1-A	Method Blank	Total/NA	Water	SM4500 NH3	20413
LCS 410-20413/2-A	Lab Control Sample	Total/NA	Water	SM4500 NH3	20413
LCSD 410-20413/3-A	Lab Control Sample Dup	Total/NA	Water	SM4500 NH3	20413

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-6241-1

Client Sample ID: CD-6B-W-45.0-20200630

Date Collected: 06/30/20 10:20
Date Received: 06/30/20 16:54

Lab Sample ID: 410-6241-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	20439	07/09/20 00:07	UKAD	ELLE
Total/NA	Prep	3510C			19316	07/04/20 07:04	UKQ8	ELLE
Total/NA	Analysis	8270D		1	20289	07/08/20 16:48	WKV3	ELLE
Total/NA	Prep	RSK-175			19936	07/07/20 10:00	IYN5	ELLE
Total/NA	Analysis	RSK-175		1	19948	07/07/20 16:46	IYN5	ELLE
Total/NA	Prep	RSK-175	DL		20820	07/09/20 08:52	IYN5	ELLE
Total/NA	Analysis	RSK-175	DL	50	20822	07/09/20 12:18	IYN5	ELLE
Total/NA	Prep	3510C			18859	07/02/20 08:35	QTH7	ELLE
Total/NA	Analysis	8015C		1	19868	07/06/20 14:17	YHQ2	ELLE
Total/NA	Analysis	Total TPH		1	28450	07/31/20 09:17	KP5X	ELLE
Total/NA	Analysis	300.0		5	26012	07/02/20 10:36	LKG	ELLE
Total/NA	Analysis	300.0		1	706980	07/09/20 14:35	VMI	TAL EDI
Total/NA	Analysis	300.0		33	706980	07/09/20 20:17	VMI	TAL EDI
Total Recoverable	Prep	3005A			18611	07/01/20 13:14	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	18827	07/01/20 23:30	LR7D	ELLE
Total Recoverable	Prep	3005A			18611	07/01/20 13:14	UJLA	ELLE
Total Recoverable	Analysis	6010C		5	19220	07/02/20 22:20	LR7D	ELLE
Dissolved	Filtration	Filtration			18585	07/01/20 12:10	UAMX	ELLE
Dissolved	Prep	Non-Digest Prep			19045	07/02/20 13:47	UJLA	ELLE
Dissolved	Analysis	6020A		1	20765	07/08/20 18:42	BMB	ELLE
Total/NA	Analysis	SM 2320B		1	19065	07/02/20 01:15	JB	ELLE
Total/NA	Analysis	SM 4500 S2 D		1	19580	07/06/20 12:00	P8DZ	ELLE
Total/NA	Prep	SM 4500 NH3 B			20413	07/08/20 11:00	UYB0	ELLE
Total/NA	Analysis	SM4500 NH3		1	20430	07/08/20 12:22	UYB0	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300
TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: Stantec Consulting Corp. Job ID: 410-6241-1
Project/Site: PHL Penrose Drilling Sampling

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015C	3510C	Water	>C12-C22 (1C)
8015C	3510C	Water	>C22-C44 (1C)
Total TPH		Water	Total Reported TPH

Laboratory: Eurofins TestAmerica, Edison

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	68-00522	02-28-21

Method Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-6241-1

Method	Method Description	Protocol	Laboratory
8260C/UST	Volatile Organic Compounds (GC/MS)	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
RSK-175	Dissolved Gases (GC)	RSK	ELLE
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	ELLE
Total TPH	Total TPH	None	ELLE
300.0	Anions, Ion Chromatography	MCAWW	ELLE
300.0	Anions, Ion Chromatography	MCAWW	TAL EDI
6010C	Metals (ICP)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
SM 2320B	Alkalinity	SM	ELLE
SM 4500 S2 D	Sulfide, Total	SM	ELLE
SM4500 NH3	Ammonia	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
Filtration	Sample Filtration	None	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE
SM 4500 NH3 B	Distillation, Ammonia	SM	ELLE

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-6241-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-6241-1	CD-6B-W-45.0-20200630	Water	06/30/20 10:20	06/30/20 16:54	

Environmental Analysis Custody

eurofins | Lancaster Laboratories Environmental

410-6241 Chain of Custody

nmental use only

COC #608753

Acct. #

Client Information

Client: Evergreen c/o Stantec	Acct. #: 16657
Project Name/ID: PHL Penrose Drilling Sampling	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 2134026602
Sampler: Dane Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ | Water ☒ Potable ☐ Ground ☐ NPDES ☐ Surface ☐ | Other: | Total # of Containers

Analysis Requested

Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	Custom TPH w/ Ranges (H/O)	TPH-GRO 8260 / Moisture (H/O)	Metals 6010 / 200.8 dissolved 6020 (total 6010B) (N)	Sulfide (O)	Chloride, Nitrate-Nitrogen, Sulfate	Volatile Headspace Hydrocarbons (H)	Total Alkalinity to 4.5	Ammonia Nitrogen (S)	*Short List VOCs 8260 include TBA 8260+EDB&DCP (H/O)	*Short List SVOCs 8270
CD-6B-W-45-20200630	6/30/20	1020			17	X	X	X	X	X	X	X	X	X	X

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks

*refer to Evergreen Petroleum Short List for list of analytes

For Lab Use Only
FSC:
SCR#:

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days:

E-mail address: andrew.klingbeil@stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
Dane	6/30/20	1140	Pierre	6/30/20	11:40
Pierre	6/30/20	1540			

EDD Required? Yes No
If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:
UPS FedEx Other

Temperature upon receipt 0.7 °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT https://www.eurofinsus.com/coc

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 091A

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Carter, Amek A	Carrier Tracking No(s):	COC No: 410-73359.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: amekcarter@eurofinsus.com	State of Origin: Pennsylvania	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Pennsylvania		Job #: 410-6241-1
Address: 777 New Durham Road, ,	Due Date Requested: 7/13/2020			
City: Edison	TAT Requested (days):			
State, Zip: NJ, 08817				
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	PO #:			
Email:	WO #:			
Project Name: PHL Penrose Drilling Sampling	Project #: 41002220			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D/ (MOD) Local Method	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
CD-6B-W-450-20200630 (410-6241-1)	6/30/20	10:20 Eastern		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Lancaster Laboratories Env places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Lancaster Laboratories Env laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Lancaster Laboratories Env attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Lancaster Laboratories Env.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: [signature]	Date/Time: 7-7-2020 1136	Company: ELLE	Received by: [signature]	Date/Time: 7July20 1205	Company: ELLE
Relinquished by: [signature]	Date/Time: 7July20 1810	Company: ELLE	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-6241-1

Login Number: 6241
List Number: 1
Creator: Jeremiah, Cory T

List Source: Eurofins Lancaster Laboratories Env

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-6241-1

Login Number: 6241
List Number: 2
Creator: Armbruster, Chris

List Source: Eurofins TestAmerica, Edison
List Creation: 07/08/20 01:03 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.1°C, IR #11
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-6389-1
Client Project/Site: PHL: Penrose Drilling Sampling
Revision: 1

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Andrew Klingbeil

Authorized for release by:
11/5/2020 4:55:13 PM

Amek Carter, Project Manager
(717)556-7252
amekcarter@eurofinsus.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
11/5/2020 4:55:13 PM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 6
Client Sample Results 7
Surrogate Summary 9
QC Sample Results 11
QC Association Summary 17
Lab Chronicle 19
Certification Summary 20
Method Summary 21
Sample Summary 22
Chain of Custody 23
Receipt Checklists 24

Definitions/Glossary

Client: Stantec Consulting Corp. Job ID: 410-6389-1
Project/Site: PHL: Penrose Drilling Sampling

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
XL	Surrogate recovery is below control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-6389-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-6389-1

Revision
The report being provided is a revision of the original report sent on 8/10/2020. The report (revision 1) is being revised due to: Analyte List Change - Added TBA.

Receipt
The samples were received on 7/1/2020 4:30 PM; the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.1°C

GC/MS VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
Method 8015C_DRO: Chlorobenzene and o-terphenyl surrogate recoveries for the following sample in preparation batch 410-21373 and analytical batch 410-22762 were below the lower control limit: CD-13B-S-3.0-20200701 (410-6389-1). Sample was not re-extracted, as re-extraction would have been performed 22 days past hold.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8011: The following sample(s) was received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: TB-20200701 (410-6389-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: PHL: Penrose Drilling Sampling

Job ID: 410-6389-1

Client Sample ID: CD-13B-S-3.0-20200701 — Lab Sample ID: 410-6389-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
>C22-C44 (1C)	21		14	5.8	mg/Kg	1	☼	8015C	Total/NA
Total Reported TPH	21		0.24	0.087	mg/Kg	1	☼	Total TPH	Total/NA
Lead	7.7		1.3	0.53	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: TB-20200701 — Lab Sample ID: 410-6389-2

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: CD-13B-S-3.0-20200701

Date Collected: 07/01/20 11:00
Date Received: 07/01/20 16:30

Lab Sample ID: 410-6389-1

Matrix: Solid
Percent Solids: 85.0

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		6.4	0.51	ug/Kg	☼	07/07/20 11:41	07/15/20 14:48	1
1,3,5-Trimethylbenzene	ND		6.4	0.64	ug/Kg	☼	07/07/20 11:41	07/15/20 14:48	1
Toluene	ND		6.4	0.77	ug/Kg	☼	07/07/20 11:41	07/15/20 14:48	1
Methyl tertiary butyl ether	ND		6.4	0.64	ug/Kg	☼	07/07/20 11:41	07/15/20 14:48	1
Benzene	ND		6.4	0.64	ug/Kg	☼	07/07/20 11:41	07/15/20 14:48	1
Naphthalene	ND		6.4	2.6	ug/Kg	☼	07/07/20 11:41	07/15/20 14:48	1
1,2,4-Trimethylbenzene	ND		6.4	0.64	ug/Kg	☼	07/07/20 11:41	07/15/20 14:48	1
Isopropylbenzene	ND		6.4	0.51	ug/Kg	☼	07/07/20 11:41	07/15/20 14:48	1
1,2-Dibromoethane	ND		6.4	0.51	ug/Kg	☼	07/07/20 11:41	07/15/20 14:48	1
1,2-Dichloroethane	ND		6.4	0.77	ug/Kg	☼	07/07/20 11:41	07/15/20 14:48	1
C4-C12-TPH-GRO	ND	B	140	56	ug/Kg	☼	07/07/20 11:41	07/15/20 14:48	1
Xylenes, Total	ND		13	1.8	ug/Kg	☼	07/07/20 11:41	07/15/20 14:48	1
t-Butyl alcohol	ND		130	19	ug/Kg	☼	07/07/20 11:41	07/15/20 14:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*54 - 135*	*07/07/20 11:41*	*07/15/20 14:48*	*1*
4-Bromofluorobenzene (Surr)	*93*		*50 - 131*	*07/07/20 11:41*	*07/15/20 14:48*	*1*
Dibromofluoromethane (Surr)	*102*		*50 - 141*	*07/07/20 11:41*	*07/15/20 14:48*	*1*
Toluene-d8 (Surr)	*98*		*52 - 141*	*07/07/20 11:41*	*07/15/20 14:48*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		20	3.9	ug/Kg	☼	07/13/20 16:34	07/14/20 18:25	1
Benzo[a]anthracene	ND		20	7.8	ug/Kg	☼	07/13/20 16:34	07/14/20 18:25	1
Benzo[a]pyrene	ND		20	3.9	ug/Kg	☼	07/13/20 16:34	07/14/20 18:25	1
Benzo[b]fluoranthene	ND		20	3.9	ug/Kg	☼	07/13/20 16:34	07/14/20 18:25	1
Benzo[g,h,i]perylene	ND		20	3.9	ug/Kg	☼	07/13/20 16:34	07/14/20 18:25	1
Chrysene	ND		20	3.9	ug/Kg	☼	07/13/20 16:34	07/14/20 18:25	1
Fluorene	ND		20	3.9	ug/Kg	☼	07/13/20 16:34	07/14/20 18:25	1
Naphthalene	ND		20	7.8	ug/Kg	☼	07/13/20 16:34	07/14/20 18:25	1
Phenanthrene	ND		20	3.9	ug/Kg	☼	07/13/20 16:34	07/14/20 18:25	1
Pyrene	ND		20	3.9	ug/Kg	☼	07/13/20 16:34	07/14/20 18:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*78*		*34 - 117*	*07/13/20 16:34*	*07/14/20 18:25*	*1*
Nitrobenzene-d5 (Surr)	*71*		*23 - 115*	*07/13/20 16:34*	*07/14/20 18:25*	*1*
p-Terphenyl-d14 (Surr)	*98*		*35 - 135*	*07/13/20 16:34*	*07/14/20 18:25*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		14	5.8	mg/Kg	☼	07/10/20 16:20	07/14/20 16:31	1
>C22-C44 (1C)	**21**		14	5.8	mg/Kg	☼	07/10/20 16:20	07/14/20 16:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o- terphenyl (Surr) (1C)	*12*	*XL*	*42 - 143*	*07/10/20 16:20*	*07/14/20 16:31*	*1*
Chlorobenzene (Surr) (1C)	*7*	*XL*	*54 - 137*	*07/10/20 16:20*	*07/14/20 16:31*	*1*

Method: Total TPH - Total TPH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Reported TPH	**21**		0.24	0.087	mg/Kg	☼		07/31/20 09:17	1

Client: Stantec Consulting Corp.
Project/Site: PHL: Penrose Drilling Sampling

Job ID: 410-6389-1

Client Sample ID: CD-13B-S-3.0-20200701

Lab Sample ID: 410-6389-1
Date Collected: 07/01/20 11:00
Matrix: Solid
Date Received: 07/01/20 16:30
Percent Solids: 85.0

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	7.7		1.3	0.53	mg/Kg	☼	07/06/20 13:40	07/16/20 10:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.0		1.0	1.0	%			07/03/20 08:26	1

Client Sample ID: TB-20200701

Lab Sample ID: 410-6389-2
Date Collected: 06/17/20 00:00
Matrix: Water
Date Received: 07/01/20 16:30

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			07/08/20 23:19	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			07/08/20 23:19	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			07/08/20 23:19	1
Benzene	ND		1.0	0.20	ug/L			07/08/20 23:19	1
C4-C12-TPH-GRO	ND		50	29	ug/L			07/08/20 23:19	1
Ethylbenzene	ND		1.0	0.40	ug/L			07/08/20 23:19	1
Isopropylbenzene	ND		5.0	0.20	ug/L			07/08/20 23:19	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			07/08/20 23:19	1
Toluene	ND		1.0	0.20	ug/L			07/08/20 23:19	1
Xylenes, Total	ND		6.0	1.4	ug/L			07/08/20 23:19	1
2-Methyl-2-propanol	ND		50	12	ug/L			07/08/20 23:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*80 - 120*		*07/08/20 23:19*	*1*
4-Bromofluorobenzene (Surr)	*88*		*80 - 120*		*07/08/20 23:19*	*1*
Dibromofluoromethane (Surr)	*116*		*80 - 120*		*07/08/20 23:19*	*1*
Toluene-d8 (Surr)	*89*		*80 - 120*		*07/08/20 23:19*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND	H	0.028	0.0095	ug/L		07/10/20 00:54	07/10/20 19:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*101*		*46 - 136*	*07/10/20 00:54*	*07/10/20 19:34*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*89*		*46 - 136*	*07/10/20 00:54*	*07/10/20 19:34*	*1*

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: PHL: Penrose Drilling Sampling

Job ID: 410-6389-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(54-135)	(50-131)	(50-141)	(52-141)
410-6389-1	CD-13B-S-3.0-20200701	107	93	102	98
LCS 410-22702/8	Lab Control Sample	103	97	99	102
LCSD 410-22702/9	Lab Control Sample Dup	102	97	99	101
MB 410-22702/11	Method Blank	102	93	102	100

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-6389-2	TB-20200701	106	88	116	89
LCS 410-20439/11	Lab Control Sample	98	95	109	96
LCS 410-20439/14	Lab Control Sample	90	113	105	111
LCSD 410-20439/12	Lab Control Sample Dup	90	109	101	106
LCSD 410-20439/15	Lab Control Sample Dup	88	101	103	85
MB 410-20439/13	Method Blank	94	98	107	94

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(34-117)	(23-115)	(35-135)
410-6389-1	CD-13B-S-3.0-20200701	78	71	98
LCS 410-21966/2-A	Lab Control Sample	79	73	99
MB 410-21966/1-A	Method Blank	90	82	110

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1122TCA1	1122TCA2
Lab Sample ID	Client Sample ID	(46-136)	(46-136)
410-6389-2	TB-20200701	101	89

Surrogate Summary

Client: Stantec Consulting Corp. Job ID: 410-6389-1
Project/Site: PHL: Penrose Drilling Sampling

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1122TCA1	1122TCA2
Lab Sample ID	Client Sample ID	(46-136)	(46-136)
LCS 410-21104/2-A	Lab Control Sample	100	88
LCSD 410-21104/3-A	Lab Control Sample Dup	98	86
MB 410-21104/1-A	Method Blank	98	86

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		OTP1	CBNZ1
Lab Sample ID	Client Sample ID	(42-143)	(54-137)
410-6389-1	CD-13B-S-3.0-20200701	12 XL	7 XL
LCS 410-21373/2-A	Lab Control Sample	101	76
MB 410-21373/1-A	Method Blank	92	73

Surrogate Legend

OTP = o- terphenyl (Surr)
CBNZ = Chlorobenzene (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-22702/11
Matrix: Solid
Analysis Batch: 22702

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		5.0	0.40	ug/Kg			07/15/20 13:46	1
1,3,5-Trimethylbenzene	ND		5.0	0.50	ug/Kg			07/15/20 13:46	1
Toluene	ND		5.0	0.60	ug/Kg			07/15/20 13:46	1
Methyl tertiary butyl ether	ND		5.0	0.50	ug/Kg			07/15/20 13:46	1
Benzene	ND		5.0	0.50	ug/Kg			07/15/20 13:46	1
Naphthalene	ND		5.0	2.0	ug/Kg			07/15/20 13:46	1
1,2,4-Trimethylbenzene	ND		5.0	0.50	ug/Kg			07/15/20 13:46	1
Isopropylbenzene	ND		5.0	0.40	ug/Kg			07/15/20 13:46	1
1,2-Dibromoethane	ND		5.0	0.40	ug/Kg			07/15/20 13:46	1
1,2-Dichloroethane	ND		5.0	0.60	ug/Kg			07/15/20 13:46	1
C4-C12-TPH-GRO	89.3	J B	110	44	ug/Kg			07/15/20 13:46	1
Xylenes, Total	ND		10	1.4	ug/Kg			07/15/20 13:46	1
t-Butyl alcohol	ND		100	15	ug/Kg			07/15/20 13:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*54 - 135*		*07/15/20 13:46*	*1*
4-Bromofluorobenzene (Surr)	*93*		*50 - 131*		*07/15/20 13:46*	*1*
Dibromofluoromethane (Surr)	*102*		*50 - 141*		*07/15/20 13:46*	*1*
Toluene-d8 (Surr)	*100*		*52 - 141*		*07/15/20 13:46*	*1*

Lab Sample ID: LCS 410-22702/8
Matrix: Solid
Analysis Batch: 22702

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C4-C12-TPH-GRO			1000	1040		ug/Kg		104	75 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*54 - 135*
4-Bromofluorobenzene (Surr)	*97*		*50 - 131*
Dibromofluoromethane (Surr)	*99*		*50 - 141*
Toluene-d8 (Surr)	*102*		*52 - 141*

Lab Sample ID: LCSD 410-22702/9
Matrix: Solid
Analysis Batch: 22702

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C4-C12-TPH-GRO			1000	1070		ug/Kg		107	75 - 120	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*54 - 135*
4-Bromofluorobenzene (Surr)	*97*		*50 - 131*
Dibromofluoromethane (Surr)	*99*		*50 - 141*
Toluene-d8 (Surr)	*101*		*52 - 141*

Client: Stantec Consulting Corp.
Project/Site: PHL: Penrose Drilling Sampling

Job ID: 410-6389-1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-20439/13
Matrix: Water
Analysis Batch: 20439

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			07/08/20 20:53	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			07/08/20 20:53	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			07/08/20 20:53	1
Benzene	ND		1.0	0.20	ug/L			07/08/20 20:53	1
C4-C12-TPH-GRO	ND		50	29	ug/L			07/08/20 20:53	1
Ethylbenzene	ND		1.0	0.40	ug/L			07/08/20 20:53	1
Isopropylbenzene	ND		5.0	0.20	ug/L			07/08/20 20:53	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			07/08/20 20:53	1
Toluene	ND		1.0	0.20	ug/L			07/08/20 20:53	1
Xylenes, Total	ND		6.0	1.4	ug/L			07/08/20 20:53	1
2-Methyl-2-propanol	ND		50	12	ug/L			07/08/20 20:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*80 - 120*		*07/08/20 20:53*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*07/08/20 20:53*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 120*		*07/08/20 20:53*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*07/08/20 20:53*	*1*

Lab Sample ID: LCS 410-20439/11
Matrix: Water
Analysis Batch: 20439

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	20.0	16.3		ug/L		81	75 - 120
1,2-Dichloroethane	20.0	17.7		ug/L		88	73 - 124
1,3,5-Trimethylbenzene	20.0	16.3		ug/L		82	75 - 120
Benzene	20.0	19.0		ug/L		95	80 - 120
Ethylbenzene	20.0	17.4		ug/L		87	80 - 120
Isopropylbenzene	20.0	16.8		ug/L		84	80 - 120
Methyl tertiary butyl ether	20.0	16.4		ug/L		82	69 - 122
Naphthalene	20.0	14.8		ug/L		74	53 - 124
Toluene	20.0	16.9		ug/L		84	80 - 120
Xylenes, Total	60.0	48.9		ug/L		82	80 - 120
2-Methyl-2-propanol	200	157		ug/L		78	60 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 120*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*
Dibromofluoromethane (Surr)	*109*		*80 - 120*
Toluene-d8 (Surr)	*96*		*80 - 120*

Lab Sample ID: LCS 410-20439/14
Matrix: Water
Analysis Batch: 20439

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C4-C12-TPH-GRO	1000	816		ug/L		82	67 - 120

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-20439/14
Matrix: Water
Analysis Batch: 20439

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*
4-Bromofluorobenzene (Surr)	*113*		*80 - 120*
Dibromofluoromethane (Surr)	*105*		*80 - 120*
Toluene-d8 (Surr)	*111*		*80 - 120*

Lab Sample ID: LCSD 410-20439/12
Matrix: Water
Analysis Batch: 20439

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene			20.0	17.1		ug/L		86	75 - 120	5	30
1,2-Dichloroethane			20.0	16.9		ug/L		84	73 - 124	5	30
1,3,5-Trimethylbenzene			20.0	17.0		ug/L		85	75 - 120	4	30
Benzene			20.0	17.1		ug/L		85	80 - 120	10	30
Ethylbenzene			20.0	18.3		ug/L		91	80 - 120	5	30
Isopropylbenzene			20.0	18.7		ug/L		93	80 - 120	11	30
Methyl tertiary butyl ether			20.0	17.1		ug/L		86	69 - 122	4	30
Naphthalene			20.0	14.2		ug/L		71	53 - 124	4	30
Toluene			20.0	18.2		ug/L		91	80 - 120	7	30
Xylenes, Total			60.0	57.0		ug/L		95	80 - 120	15	30
2-Methyl-2-propanol			200	177		ug/L		88	60 - 130	12	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*
4-Bromofluorobenzene (Surr)	*109*		*80 - 120*
Dibromofluoromethane (Surr)	*101*		*80 - 120*
Toluene-d8 (Surr)	*106*		*80 - 120*

Lab Sample ID: LCSD 410-20439/15
Matrix: Water
Analysis Batch: 20439

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C4-C12-TPH-GRO			1000	806		ug/L		81	67 - 120	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*80 - 120*
Toluene-d8 (Surr)	*85*		*80 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-21966/1-A
Matrix: Solid
Analysis Batch: 22189

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21966

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		17	3.3	ug/Kg		07/13/20 16:34	07/14/20 11:55	1
Benzo[a]anthracene	ND		17	6.7	ug/Kg		07/13/20 16:34	07/14/20 11:55	1
Benzo[a]pyrene	ND		17	3.3	ug/Kg		07/13/20 16:34	07/14/20 11:55	1
Benzo[b]fluoranthene	ND		17	3.3	ug/Kg		07/13/20 16:34	07/14/20 11:55	1
Benzo[g,h,i]perylene	ND		17	3.3	ug/Kg		07/13/20 16:34	07/14/20 11:55	1
Chrysene	ND		17	3.3	ug/Kg		07/13/20 16:34	07/14/20 11:55	1
Fluorene	ND		17	3.3	ug/Kg		07/13/20 16:34	07/14/20 11:55	1
Naphthalene	ND		17	6.7	ug/Kg		07/13/20 16:34	07/14/20 11:55	1
Phenanthrene	ND		17	3.3	ug/Kg		07/13/20 16:34	07/14/20 11:55	1
Pyrene	ND		17	3.3	ug/Kg		07/13/20 16:34	07/14/20 11:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*90*		*34 - 117*	*07/13/20 16:34*	*07/14/20 11:55*	*1*
Nitrobenzene-d5 (Surr)	*82*		*23 - 115*	*07/13/20 16:34*	*07/14/20 11:55*	*1*
p-Terphenyl-d14 (Surr)	*110*		*35 - 135*	*07/13/20 16:34*	*07/14/20 11:55*	*1*

Lab Sample ID: LCS 410-21966/2-A
Matrix: Solid
Analysis Batch: 22189

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21966

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	1670	1610		ug/Kg		96	67 - 120
Benzo[a]anthracene	1670	1500		ug/Kg		90	68 - 120
Benzo[a]pyrene	1670	1690		ug/Kg		101	68 - 119
Benzo[b]fluoranthene	1670	1760		ug/Kg		105	67 - 125
Benzo[g,h,i]perylene	1670	1740		ug/Kg		104	68 - 125
Chrysene	1670	1420		ug/Kg		85	66 - 111
Fluorene	1670	1490		ug/Kg		89	62 - 110
Naphthalene	1680	1230		ug/Kg		74	49 - 104
Phenanthrene	1670	1560		ug/Kg		93	67 - 116
Pyrene	1680	1480		ug/Kg		88	67 - 109

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*79*		*34 - 117*
Nitrobenzene-d5 (Surr)	*73*		*23 - 115*
p-Terphenyl-d14 (Surr)	*99*		*35 - 135*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-21104/1-A
Matrix: Water
Analysis Batch: 21390

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21104

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		07/10/20 00:54	07/10/20 18:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*98*		*46 - 136*	*07/10/20 00:54*	*07/10/20 18:09*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: MB 410-21104/1-A
Matrix: Water
Analysis Batch: 21390

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21104

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*86*		*46 - 136*	*07/10/20 00:54*	*07/10/20 18:09*	*1*

Lab Sample ID: LCS 410-21104/2-A
Matrix: Water
Analysis Batch: 21390

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21104

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylene Dibromide (1C)	0.128	0.161		ug/L		126	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*100*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*88*		*46 - 136*

Lab Sample ID: LCSD 410-21104/3-A
Matrix: Water
Analysis Batch: 21390

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21104

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)	0.128	0.155		ug/L		121	60 - 140	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*98*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*86*		*46 - 136*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 410-21373/1-A
Matrix: Solid
Analysis Batch: 22762

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21373

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		12	5.0	mg/Kg		07/10/20 16:20	07/14/20 14:45	1
>C22-C44 (1C)	ND		12	5.0	mg/Kg		07/10/20 16:20	07/14/20 14:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o- terphenyl (Surr) (1C)	*92*		*42 - 143*	*07/10/20 16:20*	*07/14/20 14:45*	*1*
Chlorobenzene (Surr) (1C)	*73*		*54 - 137*	*07/10/20 16:20*	*07/14/20 14:45*	*1*

Lab Sample ID: LCS 410-21373/2-A
Matrix: Solid
Analysis Batch: 22762

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21373

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (C10-C28) (1C)	133	103		mg/Kg		77	76 - 117

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: LCS 410-21373/2-A
Matrix: Solid
Analysis Batch: 22762

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21373

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o- terphenyl (Surr) (1C)	*101*		*42 - 143*
Chlorobenzene (Surr) (1C)	*76*		*54 - 137*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-19611/1-A
Matrix: Solid
Analysis Batch: 20473

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 19611

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.2	0.47	mg/Kg		07/06/20 13:40	07/08/20 10:57	1

Lab Sample ID: LCS 410-19611/2-A
Matrix: Solid
Analysis Batch: 20473

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 19611

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			2.44	2.81		mg/Kg		115	80 - 120		

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL: Penrose Drilling Sampling

Job ID: 410-6389-1

GC/MS VOA

Prep Batch: 19974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6389-1	CD-13B-S-3.0-20200701	Total/NA	Solid	5035	

Analysis Batch: 20439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6389-2	TB-20200701	Total/NA	Water	8260C/UST	
MB 410-20439/13	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-20439/11	Lab Control Sample	Total/NA	Water	8260C/UST	
LCS 410-20439/14	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-20439/12	Lab Control Sample Dup	Total/NA	Water	8260C/UST	
LCSD 410-20439/15	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

Analysis Batch: 22702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6389-1	CD-13B-S-3.0-20200701	Total/NA	Solid	8260C	19974
MB 410-22702/11	Method Blank	Total/NA	Solid	8260C	
LCS 410-22702/8	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 410-22702/9	Lab Control Sample Dup	Total/NA	Solid	8260C	

GC/MS Semi VOA

Prep Batch: 21966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6389-1	CD-13B-S-3.0-20200701	Total/NA	Solid	3546	
MB 410-21966/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-21966/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 22189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6389-1	CD-13B-S-3.0-20200701	Total/NA	Solid	8270D	21966
MB 410-21966/1-A	Method Blank	Total/NA	Solid	8270D	21966
LCS 410-21966/2-A	Lab Control Sample	Total/NA	Solid	8270D	21966

GC Semi VOA

Prep Batch: 21104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6389-2	TB-20200701	Total/NA	Water	8011	
MB 410-21104/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-21104/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-21104/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Prep Batch: 21373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6389-1	CD-13B-S-3.0-20200701	Total/NA	Solid	3546	
MB 410-21373/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-21373/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 21390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6389-2	TB-20200701	Total/NA	Water	8011	21104
MB 410-21104/1-A	Method Blank	Total/NA	Water	8011	21104
LCS 410-21104/2-A	Lab Control Sample	Total/NA	Water	8011	21104

GC Semi VOA (Continued)

Analysis Batch: 21390 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 410-21104/3-A	Lab Control Sample Dup	Total/NA	Water	8011	21104

Analysis Batch: 22762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6389-1	CD-13B-S-3.0-20200701	Total/NA	Solid	8015C	21373
MB 410-21373/1-A	Method Blank	Total/NA	Solid	8015C	21373
LCS 410-21373/2-A	Lab Control Sample	Total/NA	Solid	8015C	21373

Analysis Batch: 28450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6389-1	CD-13B-S-3.0-20200701	Total/NA	Solid	Total TPH	

Metals

Prep Batch: 19611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6389-1	CD-13B-S-3.0-20200701	Total/NA	Solid	3050B	
MB 410-19611/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 410-19611/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 20473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-19611/1-A	Method Blank	Total/NA	Solid	6010C	19611
LCS 410-19611/2-A	Lab Control Sample	Total/NA	Solid	6010C	19611

Analysis Batch: 23255

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6389-1	CD-13B-S-3.0-20200701	Total/NA	Solid	6010C	19611

General Chemistry

Analysis Batch: 19249

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6389-1	CD-13B-S-3.0-20200701	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: PHL: Penrose Drilling Sampling

Job ID: 410-6389-1

Client Sample ID: CD-13B-S-3.0-20200701
Date Collected: 07/01/20 11:00
Date Received: 07/01/20 16:30

Lab Sample ID: 410-6389-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	19249	07/03/20 08:26	LEB	ELLE

Client Sample ID: CD-13B-S-3.0-20200701
Date Collected: 07/01/20 11:00
Date Received: 07/01/20 16:30

Lab Sample ID: 410-6389-1
Matrix: Solid
Percent Solids: 85.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			19974	07/07/20 11:41	HDS6	ELLE
Total/NA	Analysis	8260C		1	22702	07/15/20 14:48	R64Z	ELLE
Total/NA	Prep	3546			21966	07/13/20 16:34	DN9W	ELLE
Total/NA	Analysis	8270D		1	22189	07/14/20 18:25	UWHS	ELLE
Total/NA	Prep	3546			21373	07/10/20 16:20	DN9W	ELLE
Total/NA	Analysis	8015C		1	22762	07/14/20 16:31	YHQ2	ELLE
Total/NA	Analysis	Total TPH		1	28450	07/31/20 09:17	KP5X	ELLE
Total/NA	Prep	3050B			19611	07/06/20 13:40	UJLA	ELLE
Total/NA	Analysis	6010C		1	23255	07/16/20 10:46	ULJC	ELLE

Client Sample ID: TB-20200701
Date Collected: 06/17/20 00:00
Date Received: 07/01/20 16:30

Lab Sample ID: 410-6389-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	20439	07/08/20 23:19	UKAD	ELLE
Total/NA	Prep	8011			21104	07/10/20 00:54	K2IL	ELLE
Total/NA	Analysis	8011		1	21390	07/10/20 19:34	AC3T	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp. Job ID: 410-6389-1
Project/Site: PHL: Penrose Drilling Sampling

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015C	3546	Solid	>C12-C22 (1C)
8015C	3546	Solid	>C22-C44 (1C)
Moisture		Solid	Percent Moisture
Total TPH		Solid	Total Reported TPH

Method Summary

Client: Stantec Consulting Corp.
Job ID: 410-6389-1
Project/Site: PHL: Penrose Drilling Sampling

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
8260C/UST	Volatile Organic Compounds (GC/MS)	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	ELLE
Total TPH	Total TPH	None	ELLE
6010C	Metals (ICP)	SW846	ELLE
Moisture	Percent Moisture	EPA	ELLE
3050B	Preparation, Metals	SW846	ELLE
3546	Microwave Extraction	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
5035	Closed System Purge and Trap	SW846	ELLE
8011	Microextraction	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: PHL: Penrose Drilling Sampling

Job ID: 410-6389-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-6389-1	CD-13B-S-3.0-20200701	Solid	07/01/20 11:00	07/01/20 16:30	
410-6389-2	TB-20200701	Water	06/17/20 00:00	07/01/20 16:30	

Environmental Analysis Req[illegible]tody

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For [illegible] only

Acct. # _____

410-6389 Chain of Custody

COC # 608856

Client Information	
Client: Evergreen: c/o Stantec	Acct. #: 16657
Project Name #: PHL: Penrose Drilling Sampling	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 213402602
Sampler: Dane Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Soil ☒ Sediment ☐ Tissue; Water: Potable ☐ Ground ☐ Surface ☐ NPDES; Other: trip blank

Analysis Requested — Preservation and Filtration Codes: 1, O

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil ☒ Sediment	Water	Other	Total # of Containers	Custom TPH w/ Ranges	TPH-GRO 8260/moisture	Metal 6010/Dissolved Lead 6020	* Short List VOCs 8260 include TBA 8260 + EDB 8011	* Short List SVOCs 8270						Remarks
CD-13B-S-3.0-20200701	7/1/20	1100	X		X			6	X	X	X	X	X						* Refer to Evergreen Petroleum Short List for list of analytes
TB-20200701	6/17/20	—					X					X							

For Lab Use Only
FSC: _____
SCR#: 260688

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: andrew.klingbeil@stantec.com

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
[signature]	7/1/20	12:30	Pienne	7/1/20	12:30
Pienne	7/1/20	15:50			
			[signature]	7-1-20	1630

EDD Required? Yes No
If yes, format: EQUIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____

Temperature upon receipt 0.1 °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT https://www.eurofinsus.com/coc
The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0919

KAM

11/5/2020 (Rev. 1)

Login Sample Receipt Checklist

Client: Stantec Consulting Corp. Job Number: 410-6389-1

Login Number: 6389 **List Source: Eurofins Lancaster Laboratories Env**
List Number: 1
Creator: Sanchez, Melvin E

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-6786-1
Client Project/Site: PHL Penrose Drilling Sample

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Andrew Klingbeil

Authorized for release by:
8/21/2020 11:55:54 AM

Amek Carter, Project Manager
(717)556-7252
amekcarter@eurofinsus.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments. QC data that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result. Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
8/21/2020 11:55:54 AM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 6
Detection Summary 7
Client Sample Results 8
Surrogate Summary 10
QC Sample Results 12
QC Association Summary 20
Lab Chronicle 24
Certification Summary 25
Method Summary 26
Sample Summary 27
Chain of Custody 28
Receipt Checklists 29

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-6786-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
XL	Surrogate recovery is below control limits

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
FL	MS and/or MSD recovery below control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-6786-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-6786-1

Comments
No additional comments.

Receipt
The sample was received on 7/7/2020 4:05 PM; the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was -0.5º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC VOA
Method RSK-175: The reported result for Methane exceeded the calibration range of the instrument. The sample was unable to be prepared and/or analyzed at a dilution due to one vial submitted for analysis: CD-13B-W-40.0-20200707 (410-6786-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
Method Filtration: The following sample was not filtered within 15 minutes of sample collection as required by the method: CD-13B-W-40.0-20200707 (410-6786-1). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-6786-1

Client Sample ID: CD-13B-W-40.0-20200707

Lab Sample ID: 410-6786-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	33		5.0	1.0	ug/L	1		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	19		5.0	0.30	ug/L	1		8260C/UST	Total/NA
Ethylbenzene	59		1.0	0.40	ug/L	1		8260C/UST	Total/NA
Isopropylbenzene	45		5.0	0.20	ug/L	1		8260C/UST	Total/NA
Toluene	120		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Xylenes, Total	130		6.0	1.4	ug/L	1		8260C/UST	Total/NA
Benzene - DL	480		10	2.0	ug/L	10		8260C/UST	Total/NA
C4-C12-TPH-GRO - DL	4900		500	290	ug/L	10		8260C/UST	Total/NA
Benzo[a]anthracene	0.14	J	0.51	0.10	ug/L	1		8270D	Total/NA
Chrysene	0.36	J	0.51	0.10	ug/L	1		8270D	Total/NA
Fluorene	0.18	J	0.51	0.10	ug/L	1		8270D	Total/NA
Naphthalene	19		0.51	0.10	ug/L	1		8270D	Total/NA
Phenanthrene	0.23	J	0.51	0.10	ug/L	1		8270D	Total/NA
Pyrene	0.19	J	0.51	0.10	ug/L	1		8270D	Total/NA
Ethane (1C)	1.6	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C)	2100	E	5.0	3.0	ug/L	1		RSK-175	Total/NA
>C12-C22 (1C)	0.86		0.096	0.035	mg/L	1		8015C	Total/NA
>C22-C44 (1C)	0.048	J	0.096	0.035	mg/L	1		8015C	Total/NA
Total Reported TPH	0.91		0.20	0.074	mg/L	1		Total TPH	Total/NA
Sulfate	44	J	100	30	mg/L	100		300.0	Total/NA
Chloride	88		40	20	mg/L	100		300.0	Total/NA
Calcium	14		0.20	0.096	mg/L	1		6010C	Total Recoverable
Iron	5.1		0.20	0.040	mg/L	1		6010C	Total Recoverable
Magnesium	15		0.10	0.040	mg/L	1		6010C	Total Recoverable
Potassium	8.2		0.50	0.20	mg/L	1		6010C	Total Recoverable
Sodium	410		1.0	0.24	mg/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	880		8.0	8.0	mg/L	1		SM 2320B	Total/NA
Ammonia-N	2.5		1.1	0.36	mg/L	1		SM4500 NH3	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CD-13B-W-40.0-20200707

Date Collected: 07/07/20 09:25
Date Received: 07/07/20 16:05

Lab Sample ID: 410-6786-1

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**33**		5.0	1.0	ug/L			07/16/20 11:45	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			07/16/20 11:45	1
1,3,5-Trimethylbenzene	**19**		5.0	0.30	ug/L			07/16/20 11:45	1
Ethylbenzene	**59**		1.0	0.40	ug/L			07/16/20 11:45	1
Isopropylbenzene	**45**		5.0	0.20	ug/L			07/16/20 11:45	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			07/16/20 11:45	1
Toluene	**120**		1.0	0.20	ug/L			07/16/20 11:45	1
Xylenes, Total	**130**		6.0	1.4	ug/L			07/16/20 11:45	1
2-Methyl-2-propanol	ND		50	12	ug/L			07/16/20 11:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*80 - 120*		*07/16/20 11:45*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*07/16/20 11:45*	*1*
Dibromofluoromethane (Surr)	*115*		*80 - 120*		*07/16/20 11:45*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*07/16/20 11:45*	*1*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**480**		10	2.0	ug/L			07/20/20 13:23	10
C4-C12-TPH-GRO	**4900**		500	290	ug/L			07/20/20 13:23	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*		*07/20/20 13:23*	*10*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*07/20/20 13:23*	*10*
Dibromofluoromethane (Surr)	*106*		*80 - 120*		*07/20/20 13:23*	*10*
Toluene-d8 (Surr)	*91*		*80 - 120*		*07/20/20 13:23*	*10*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.51	0.10	ug/L		07/09/20 07:38	07/12/20 18:17	1
Benzo[a]anthracene	**0.14**	**J**	0.51	0.10	ug/L		07/09/20 07:38	07/12/20 18:17	1
Benzo[a]pyrene	ND		0.51	0.10	ug/L		07/09/20 07:38	07/12/20 18:17	1
Benzo[b]fluoranthene	ND		0.51	0.10	ug/L		07/09/20 07:38	07/12/20 18:17	1
Benzo[g,h,i]perylene	ND		0.51	0.10	ug/L		07/09/20 07:38	07/12/20 18:17	1
Chrysene	**0.36**	**J**	0.51	0.10	ug/L		07/09/20 07:38	07/12/20 18:17	1
Fluorene	**0.18**	**J**	0.51	0.10	ug/L		07/09/20 07:38	07/12/20 18:17	1
Naphthalene	**19**		0.51	0.10	ug/L		07/09/20 07:38	07/12/20 18:17	1
Phenanthrene	**0.23**	**J**	0.51	0.10	ug/L		07/09/20 07:38	07/12/20 18:17	1
Pyrene	**0.19**	**J**	0.51	0.10	ug/L		07/09/20 07:38	07/12/20 18:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*74*		*44 - 102*	*07/09/20 07:38*	*07/12/20 18:17*	*1*
Nitrobenzene-d5 (Surr)	*83*		*38 - 113*	*07/09/20 07:38*	*07/12/20 18:17*	*1*
p-Terphenyl-d14 (Surr)	*75*		*34 - 128*	*07/09/20 07:38*	*07/12/20 18:17*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**1.6**	**J**	5.0	1.0	ug/L		07/08/20 10:09	07/09/20 08:26	1
Ethene (1C)	ND		5.0	1.0	ug/L		07/08/20 10:09	07/09/20 08:26	1
Methane (1C)	**2100**	**E**	5.0	3.0	ug/L		07/08/20 10:09	07/09/20 08:26	1

Client Sample ID: CD-13B-W-40.0-20200707

Date Collected: 07/07/20 09:25
Date Received: 07/07/20 16:05

Lab Sample ID: 410-6786-1

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*61*		*28 - 140*	*07/08/20 10:09*	*07/09/20 08:26*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.028	0.0093	ug/L		07/10/20 01:03	07/11/20 01:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*120*		*46 - 136*	*07/10/20 01:03*	*07/11/20 01:17*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*110*		*46 - 136*	*07/10/20 01:03*	*07/11/20 01:17*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	**0.86**		0.096	0.035	mg/L		07/14/20 17:36	07/16/20 19:03	1
>C22-C44 (1C)	**0.048**	**J**	0.096	0.035	mg/L		07/14/20 17:36	07/16/20 19:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*17*	*XL*	*21 - 116*	*07/14/20 17:36*	*07/16/20 19:03*	*1*
o- terphenyl (Surr) (1C)	*36*	*XL*	*51 - 126*	*07/14/20 17:36*	*07/16/20 19:03*	*1*

Method: Total TPH - Total TPH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Reported TPH	**0.91**		0.20	0.074	mg/L			07/31/20 09:17	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND		0.50	0.25	mg/L			07/09/20 06:19	5
Sulfate	**44**	**J**	100	30	mg/L			07/21/20 16:30	100
Chloride	**88**		40	20	mg/L			07/21/20 16:30	100

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**14**		0.20	0.096	mg/L		07/08/20 02:43	07/13/20 08:20	1
Iron	**5.1**		0.20	0.040	mg/L		07/08/20 02:43	07/13/20 08:20	1
Magnesium	**15**		0.10	0.040	mg/L		07/08/20 02:43	07/14/20 07:24	1
Potassium	**8.2**		0.50	0.20	mg/L		07/08/20 02:43	07/13/20 08:20	1
Sodium	**410**		1.0	0.24	mg/L		07/08/20 02:43	07/14/20 07:24	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		07/09/20 05:46	07/09/20 17:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**880**		8.0	8.0	mg/L			07/10/20 04:52	1
Sulfide	ND	FL	0.30	0.10	mg/L			07/08/20 13:18	1
Ammonia-N	**2.5**		1.1	0.36	mg/L		07/14/20 10:44	07/14/20 12:36	1

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-6786-1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-6786-1	CD-13B-W-40.0-20200707	95	100	115	97
410-6786-1 - DL	CD-13B-W-40.0-20200707	92	96	106	91
LCS 410-24181/8	Lab Control Sample	90	97	103	95
LCSD 410-24181/9	Lab Control Sample Dup	91	97	106	95
MB 410-23070/5	Method Blank	101	88	116	92
MB 410-24181/5	Method Blank	92	97	106	94

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(44-102)	(38-113)	(34-128)
410-6786-1	CD-13B-W-40.0-20200707	74	83	75
LCS 410-20749/2-A	Lab Control Sample	78	79	87
MB 410-20749/1-A	Method Blank	77	81	96

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
		Propene1
Lab Sample ID	Client Sample ID	(28-140)
410-6786-1	CD-13B-W-40.0-20200707	61
LCS 410-20389/2-A	Lab Control Sample	98
MB 410-20389/1-A	Method Blank	99

Surrogate Legend

Propene = Propene

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		1122TCA1	1122TCA2
Lab Sample ID	Client Sample ID	(46-136)	(46-136)
410-6786-1	CD-13B-W-40.0-20200707	120	110
LCS 410-21104/2-A	Lab Control Sample	100	88
LCSD 410-21104/3-A	Lab Control Sample Dup	98	86
MB 410-21104/1-A	Method Blank	98	86

Surrogate Legend

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-6786-1

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	CBNZ1 (21-116)	OTP1 (51-126)
410-6786-1	CD-13B-W-40.0-20200707	17 XL	36 XL
LCS 410-22454/2-A	Lab Control Sample	48	83
MB 410-22454/1-A	Method Blank	47	53

Surrogate Legend

CBNZ = Chlorobenzene (Surr)

OTP = o- terphenyl (Surr)

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-23070/5
Matrix: Water
Analysis Batch: 23070

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			07/16/20 09:15	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			07/16/20 09:15	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			07/16/20 09:15	1
Benzene	ND		1.0	0.20	ug/L			07/16/20 09:15	1
C4-C12-TPH-GRO	ND		50	29	ug/L			07/16/20 09:15	1
Ethylbenzene	ND		1.0	0.40	ug/L			07/16/20 09:15	1
Isopropylbenzene	ND		5.0	0.20	ug/L			07/16/20 09:15	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			07/16/20 09:15	1
Toluene	ND		1.0	0.20	ug/L			07/16/20 09:15	1
Xylenes, Total	ND		6.0	1.4	ug/L			07/16/20 09:15	1
2-Methyl-2-propanol	ND		50	12	ug/L			07/16/20 09:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*		*07/16/20 09:15*	*1*
4-Bromofluorobenzene (Surr)	*88*		*80 - 120*		*07/16/20 09:15*	*1*
Dibromofluoromethane (Surr)	*116*		*80 - 120*		*07/16/20 09:15*	*1*
Toluene-d8 (Surr)	*92*		*80 - 120*		*07/16/20 09:15*	*1*

Lab Sample ID: LCS 410-23070/8
Matrix: Water
Analysis Batch: 23070

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C4-C12-TPH-GRO	1000	1030		ug/L		103	67 - 120

Lab Sample ID: LCSD 410-23070/9
Matrix: Water
Analysis Batch: 23070

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C4-C12-TPH-GRO	1000	998		ug/L		100	67 - 120	3	30

Lab Sample ID: MB 410-24181/5
Matrix: Water
Analysis Batch: 24181

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			07/20/20 10:04	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			07/20/20 10:04	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			07/20/20 10:04	1
Benzene	ND		1.0	0.20	ug/L			07/20/20 10:04	1
C4-C12-TPH-GRO	ND		50	29	ug/L			07/20/20 10:04	1
Ethylbenzene	ND		1.0	0.40	ug/L			07/20/20 10:04	1
Isopropylbenzene	ND		5.0	0.20	ug/L			07/20/20 10:04	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			07/20/20 10:04	1
Toluene	ND		1.0	0.20	ug/L			07/20/20 10:04	1
Xylenes, Total	ND		6.0	1.4	ug/L			07/20/20 10:04	1
2-Methyl-2-propanol	ND		50	12	ug/L			07/20/20 10:04	1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-24181/5
Matrix: Water
Analysis Batch: 24181

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		80 - 120		07/20/20 10:04	1
4-Bromofluorobenzene (Surr)	97		80 - 120		07/20/20 10:04	1
Dibromofluoromethane (Surr)	106		80 - 120		07/20/20 10:04	1
Toluene-d8 (Surr)	94		80 - 120		07/20/20 10:04	1

Lab Sample ID: LCS 410-24181/8
Matrix: Water
Analysis Batch: 24181

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C4-C12-TPH-GRO			1000	915		ug/L		92	67 - 120		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	90		80 - 120
4-Bromofluorobenzene (Surr)	97		80 - 120
Dibromofluoromethane (Surr)	103		80 - 120
Toluene-d8 (Surr)	95		80 - 120

Lab Sample ID: LCSD 410-24181/9
Matrix: Water
Analysis Batch: 24181

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C4-C12-TPH-GRO			1000	902		ug/L		90	67 - 120	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	91		80 - 120
4-Bromofluorobenzene (Surr)	97		80 - 120
Dibromofluoromethane (Surr)	106		80 - 120
Toluene-d8 (Surr)	95		80 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-20749/1-A
Matrix: Water
Analysis Batch: 21582

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20749

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		07/09/20 07:38	07/12/20 15:55	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		07/09/20 07:38	07/12/20 15:55	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		07/09/20 07:38	07/12/20 15:55	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		07/09/20 07:38	07/12/20 15:55	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		07/09/20 07:38	07/12/20 15:55	1
Chrysene	ND		0.50	0.10	ug/L		07/09/20 07:38	07/12/20 15:55	1
Fluorene	ND		0.50	0.10	ug/L		07/09/20 07:38	07/12/20 15:55	1
Naphthalene	ND		0.50	0.10	ug/L		07/09/20 07:38	07/12/20 15:55	1
Phenanthrene	ND		0.50	0.10	ug/L		07/09/20 07:38	07/12/20 15:55	1
Pyrene	ND		0.50	0.10	ug/L		07/09/20 07:38	07/12/20 15:55	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-20749/1-A
Matrix: Water
Analysis Batch: 21582

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20749

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	77		44 - 102	07/09/20 07:38	07/12/20 15:55	1
Nitrobenzene-d5 (Surr)	81		38 - 113	07/09/20 07:38	07/12/20 15:55	1
p-Terphenyl-d14 (Surr)	96		34 - 128	07/09/20 07:38	07/12/20 15:55	1

Lab Sample ID: LCS 410-20749/2-A
Matrix: Water
Analysis Batch: 21582

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20749

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.1	44.3		ug/L		88	67 - 116
Benzo[a]anthracene	50.0	45.6		ug/L		91	68 - 123
Benzo[a]pyrene	50.2	45.3		ug/L		90	71 - 117
Benzo[b]fluoranthene	50.1	49.1		ug/L		98	69 - 121
Benzo[g,h,i]perylene	50.1	48.4		ug/L		97	60 - 119
Chrysene	50.0	42.6		ug/L		85	65 - 121
Fluorene	50.1	43.6		ug/L		87	56 - 115
Naphthalene	50.4	39.2		ug/L		78	51 - 102
Phenanthrene	50.2	44.7		ug/L		89	65 - 113
Pyrene	50.4	43.3		ug/L		86	65 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	78		44 - 102
Nitrobenzene-d5 (Surr)	79		38 - 113
p-Terphenyl-d14 (Surr)	87		34 - 128

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-20389/1-A
Matrix: Water
Analysis Batch: 20373

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20389

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		07/08/20 10:09	07/08/20 16:17	1
Ethene (1C)	ND		5.0	1.0	ug/L		07/08/20 10:09	07/08/20 16:17	1
Methane (1C)	ND		5.0	3.0	ug/L		07/08/20 10:09	07/08/20 16:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Propene (1C)	99		28 - 140	07/08/20 10:09	07/08/20 16:17	1

Lab Sample ID: LCS 410-20389/2-A
Matrix: Water
Analysis Batch: 20373

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20389

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethane (1C)	59.4	59.1		ug/L		100	85 - 115
Ethene (1C)	60.4	60.1		ug/L		100	83 - 115
Methane (1C)	59.4	62.0		ug/L		104	85 - 115

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCS 410-20389/2-A
Matrix: Water
Analysis Batch: 20373

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20389

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Propene (1C)	98		28 - 140

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-21104/1-A
Matrix: Water
Analysis Batch: 21390

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21104

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		07/10/20 00:54	07/10/20 18:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane (Surr) (1C)	98		46 - 136	07/10/20 00:54	07/10/20 18:09	1
1,1,2,2-Tetrachloroethane (Surr) (2C)	86		46 - 136	07/10/20 00:54	07/10/20 18:09	1

Lab Sample ID: LCS 410-21104/2-A
Matrix: Water
Analysis Batch: 21390

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21104

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.161		ug/L		126	60 - 140		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,1,2,2-Tetrachloroethane (Surr) (1C)	100		46 - 136
1,1,2,2-Tetrachloroethane (Surr) (2C)	88		46 - 136

Lab Sample ID: LCSD 410-21104/3-A
Matrix: Water
Analysis Batch: 21390

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21104

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.155		ug/L		121	60 - 140	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,1,2,2-Tetrachloroethane (Surr) (1C)	98		46 - 136
1,1,2,2-Tetrachloroethane (Surr) (2C)	86		46 - 136

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 410-22454/1-A
Matrix: Water
Analysis Batch: 23645

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 22454

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		0.10	0.037	mg/L		07/14/20 17:36	07/16/20 17:16	1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: MB 410-22454/1-A
Matrix: Water
Analysis Batch: 23645

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 22454

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C22-C44 (1C)	ND		0.10	0.037	mg/L		07/14/20 17:36	07/16/20 17:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*47*		*21 - 116*	*07/14/20 17:36*	*07/16/20 17:16*	*1*
o- terphenyl (Surr) (1C)	*53*		*51 - 126*	*07/14/20 17:36*	*07/16/20 17:16*	*1*

Lab Sample ID: LCS 410-22454/2-A
Matrix: Water
Analysis Batch: 23645

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 22454

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (C10-C28) (1C)	0.800	0.468		mg/L		58	48 - 116

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Chlorobenzene (Surr) (1C)	*48*		*21 - 116*
o- terphenyl (Surr) (1C)	*83*		*51 - 126*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 410-20491/23
Matrix: Water
Analysis Batch: 20491

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND		0.10	0.050	mg/L			07/08/20 20:53	1

Lab Sample ID: MB 410-20491/34
Matrix: Water
Analysis Batch: 20491

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND		0.10	0.050	mg/L			07/09/20 00:02	1

Lab Sample ID: LCS 410-20491/33
Matrix: Water
Analysis Batch: 20491

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Nitrate	0.750	0.792		mg/L		106	90 - 110

Lab Sample ID: MB 410-24688/4
Matrix: Water
Analysis Batch: 24688

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1.0	0.30	mg/L			07/21/20 10:49	1
Chloride	ND		0.40	0.20	mg/L			07/21/20 10:49	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 410-24688/3
Matrix: Water
Analysis Batch: 24688

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	7.50	7.57		mg/L		101	90 - 110
Chloride	3.00	2.91		mg/L		97	90 - 110

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-20198/1-A
Matrix: Water
Analysis Batch: 21809

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 20198

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.20	0.096	mg/L		07/08/20 02:43	07/13/20 07:25	1
Iron	ND		0.20	0.040	mg/L		07/08/20 02:43	07/13/20 07:25	1
Magnesium	ND		0.10	0.040	mg/L		07/08/20 02:43	07/13/20 07:25	1
Potassium	ND		0.50	0.20	mg/L		07/08/20 02:43	07/13/20 07:25	1
Sodium	ND		1.0	0.24	mg/L		07/08/20 02:43	07/13/20 07:25	1

Lab Sample ID: LCS 410-20198/2-A
Matrix: Water
Analysis Batch: 21809

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 20198

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	0.400	0.414		mg/L		103	80 - 120
Iron	0.402	0.412		mg/L		102	80 - 120
Potassium	5.60	5.86		mg/L		105	80 - 120

Lab Sample ID: LCS 410-20198/2-A
Matrix: Water
Analysis Batch: 22161

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 20198

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Magnesium	0.200	0.207		mg/L		103	80 - 120
Sodium	2.00	2.03		mg/L		102	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 410-20694/1-A
Matrix: Water
Analysis Batch: 21190

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20694

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		07/09/20 05:46	07/09/20 17:41	1

Lab Sample ID: LCS 410-20694/2-A
Matrix: Water
Analysis Batch: 21190

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20694

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	4.92	5.03		ug/L		102	90 - 110

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 410-6786-1 MS
Matrix: Water
Analysis Batch: 21190

Client Sample ID: CD-13B-W-40.0-20200707
Prep Type: Dissolved
Prep Batch: 20694

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	ND		4.92	5.06		ug/L		103	75 - 125

Lab Sample ID: 410-6786-1 MSD
Matrix: Water
Analysis Batch: 21190

Client Sample ID: CD-13B-W-40.0-20200707
Prep Type: Dissolved
Prep Batch: 20694

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	ND		4.92	4.90		ug/L		100	75 - 125	3	20

Lab Sample ID: 410-6786-1 DU
Matrix: Water
Analysis Batch: 21190

Client Sample ID: CD-13B-W-40.0-20200707
Prep Type: Dissolved
Prep Batch: 20694

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	ND		ND		ug/L		NC	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 410-21353/85
Matrix: Water
Analysis Batch: 21353

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8.0	8.0	mg/L			07/10/20 03:52	1

Lab Sample ID: LCS 410-21353/86
Matrix: Water
Analysis Batch: 21353

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	189	168		mg/L		89	82 - 106

Lab Sample ID: LCSD 410-21353/87
Matrix: Water
Analysis Batch: 21353

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	189	175		mg/L		93	82 - 106	4	10

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 410-20451/1
Matrix: Water
Analysis Batch: 20451

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.30	0.10	mg/L			07/08/20 13:18	1

Method: SM 4500 S2 D - Sulfide, Total (Continued)

Lab Sample ID: LCS 410-20451/12
Matrix: Water
Analysis Batch: 20451

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide			0.999	1.05		mg/L		105	90 - 110		
Sulfide as H2S			0.999	1.11		mg/L		111			

Lab Sample ID: 410-6786-1 MS
Matrix: Water
Analysis Batch: 20451

Client Sample ID: CD-13B-W-40.0-20200707
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide	ND	FL	0.517	0.463	FL	mg/L		89	90 - 110		
Sulfide as H2S	ND		0.517	0.491		mg/L		95			

Lab Sample ID: 410-6786-1 MSD
Matrix: Water
Analysis Batch: 20451

Client Sample ID: CD-13B-W-40.0-20200707
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfide	ND	FL	0.517	0.433	FL	mg/L		84	90 - 110	7	29
Sulfide as H2S	ND		0.517	0.459		mg/L		89		7	

Lab Sample ID: 410-6786-1 DU
Matrix: Water
Analysis Batch: 20451

Client Sample ID: CD-13B-W-40.0-20200707
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfide	ND	FL	ND		mg/L		NC	5

Method: SM4500 NH3 - Ammonia

Lab Sample ID: MB 410-22277/1-A
Matrix: Water
Analysis Batch: 22320

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 22277

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia-N	ND		0.75	0.25	mg/L		07/14/20 10:44	07/14/20 12:36	1

Lab Sample ID: LCS 410-22277/2-A
Matrix: Water
Analysis Batch: 22320

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 22277

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia-N			10.0	9.80		mg/L		98	93 - 100		

GC/MS VOA

Analysis Batch: 23070

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6786-1	CD-13B-W-40.0-20200707	Total/NA	Water	8260C/UST	
MB 410-23070/5	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-23070/8	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-23070/9	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

Analysis Batch: 24181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6786-1 - DL	CD-13B-W-40.0-20200707	Total/NA	Water	8260C/UST	
MB 410-24181/5	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-24181/8	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-24181/9	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

GC/MS Semi VOA

Prep Batch: 20749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6786-1	CD-13B-W-40.0-20200707	Total/NA	Water	3510C	
MB 410-20749/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-20749/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 21582

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6786-1	CD-13B-W-40.0-20200707	Total/NA	Water	8270D	20749
MB 410-20749/1-A	Method Blank	Total/NA	Water	8270D	20749
LCS 410-20749/2-A	Lab Control Sample	Total/NA	Water	8270D	20749

GC VOA

Analysis Batch: 20373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6786-1	CD-13B-W-40.0-20200707	Total/NA	Water	RSK-175	20389
MB 410-20389/1-A	Method Blank	Total/NA	Water	RSK-175	20389
LCS 410-20389/2-A	Lab Control Sample	Total/NA	Water	RSK-175	20389

Prep Batch: 20389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6786-1	CD-13B-W-40.0-20200707	Total/NA	Water	RSK-175	
MB 410-20389/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-20389/2-A	Lab Control Sample	Total/NA	Water	RSK-175	

GC Semi VOA

Prep Batch: 21104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6786-1	CD-13B-W-40.0-20200707	Total/NA	Water	8011	
MB 410-21104/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-21104/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-21104/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 21390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6786-1	CD-13B-W-40.0-20200707	Total/NA	Water	8011	21104

GC Semi VOA (Continued)

Analysis Batch: 21390 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-21104/1-A	Method Blank	Total/NA	Water	8011	21104
LCS 410-21104/2-A	Lab Control Sample	Total/NA	Water	8011	21104
LCSD 410-21104/3-A	Lab Control Sample Dup	Total/NA	Water	8011	21104

Prep Batch: 22454

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6786-1	CD-13B-W-40.0-20200707	Total/NA	Water	3510C	
MB 410-22454/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-22454/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 23645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6786-1	CD-13B-W-40.0-20200707	Total/NA	Water	8015C	22454
MB 410-22454/1-A	Method Blank	Total/NA	Water	8015C	22454
LCS 410-22454/2-A	Lab Control Sample	Total/NA	Water	8015C	22454

Analysis Batch: 28450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6786-1	CD-13B-W-40.0-20200707	Total/NA	Water	Total TPH	

HPLC/IC

Analysis Batch: 20491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6786-1	CD-13B-W-40.0-20200707	Total/NA	Water	300.0	
MB 410-20491/23	Method Blank	Total/NA	Water	300.0	
MB 410-20491/34	Method Blank	Total/NA	Water	300.0	
LCS 410-20491/33	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 24688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6786-1	CD-13B-W-40.0-20200707	Total/NA	Water	300.0	
MB 410-24688/4	Method Blank	Total/NA	Water	300.0	
LCS 410-24688/3	Lab Control Sample	Total/NA	Water	300.0	

Metals

Prep Batch: 20198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6786-1	CD-13B-W-40.0-20200707	Total Recoverable	Water	3005A	
MB 410-20198/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-20198/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Filtration Batch: 20216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6786-1	CD-13B-W-40.0-20200707	Dissolved	Water	Filtration	
410-6786-1 MS	CD-13B-W-40.0-20200707	Dissolved	Water	Filtration	
410-6786-1 MSD	CD-13B-W-40.0-20200707	Dissolved	Water	Filtration	
410-6786-1 DU	CD-13B-W-40.0-20200707	Dissolved	Water	Filtration	

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-6786-1

Metals

Prep Batch: 20694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6786-1	CD-13B-W-40.0-20200707	Dissolved	Water	Non-Digest Prep	20216
MB 410-20694/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-20694/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	
410-6786-1 MS	CD-13B-W-40.0-20200707	Dissolved	Water	Non-Digest Prep	20216
410-6786-1 MSD	CD-13B-W-40.0-20200707	Dissolved	Water	Non-Digest Prep	20216
410-6786-1 DU	CD-13B-W-40.0-20200707	Dissolved	Water	Non-Digest Prep	20216

Analysis Batch: 21190

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6786-1	CD-13B-W-40.0-20200707	Dissolved	Water	6020A	20694
MB 410-20694/1-A	Method Blank	Total/NA	Water	6020A	20694
LCS 410-20694/2-A	Lab Control Sample	Total/NA	Water	6020A	20694
410-6786-1 MS	CD-13B-W-40.0-20200707	Dissolved	Water	6020A	20694
410-6786-1 MSD	CD-13B-W-40.0-20200707	Dissolved	Water	6020A	20694
410-6786-1 DU	CD-13B-W-40.0-20200707	Dissolved	Water	6020A	20694

Analysis Batch: 21809

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6786-1	CD-13B-W-40.0-20200707	Total Recoverable	Water	6010C	20198
MB 410-20198/1-A	Method Blank	Total Recoverable	Water	6010C	20198
LCS 410-20198/2-A	Lab Control Sample	Total Recoverable	Water	6010C	20198

Analysis Batch: 22161

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6786-1	CD-13B-W-40.0-20200707	Total Recoverable	Water	6010C	20198
LCS 410-20198/2-A	Lab Control Sample	Total Recoverable	Water	6010C	20198

General Chemistry

Analysis Batch: 20451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6786-1	CD-13B-W-40.0-20200707	Total/NA	Water	SM 4500 S2 D	
MB 410-20451/1	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 410-20451/12	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
410-6786-1 MS	CD-13B-W-40.0-20200707	Total/NA	Water	SM 4500 S2 D	
410-6786-1 MSD	CD-13B-W-40.0-20200707	Total/NA	Water	SM 4500 S2 D	
410-6786-1 DU	CD-13B-W-40.0-20200707	Total/NA	Water	SM 4500 S2 D	

Analysis Batch: 21353

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6786-1	CD-13B-W-40.0-20200707	Total/NA	Water	SM 2320B	
MB 410-21353/85	Method Blank	Total/NA	Water	SM 2320B	
LCS 410-21353/86	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 410-21353/87	Lab Control Sample Dup	Total/NA	Water	SM 2320B	

Prep Batch: 22277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6786-1	CD-13B-W-40.0-20200707	Total/NA	Water	SM 4500 NH3 B	
MB 410-22277/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 B	
LCS 410-22277/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 B	

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-6786-1

General Chemistry

Analysis Batch: 22320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-6786-1	CD-13B-W-40.0-20200707	Total/NA	Water	SM4500 NH3	22277
MB 410-22277/1-A	Method Blank	Total/NA	Water	SM4500 NH3	22277
LCS 410-22277/2-A	Lab Control Sample	Total/NA	Water	SM4500 NH3	22277

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-6786-1

Client Sample ID: CD-13B-W-40.0-20200707

Date Collected: 07/07/20 09:25
Date Received: 07/07/20 16:05

Lab Sample ID: 410-6786-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	23070	07/16/20 11:45	TK5O	ELLE
Total/NA	Analysis	8260C/UST	DL	10	24181	07/20/20 13:23	TK5O	ELLE
Total/NA	Prep	3510C			20749	07/09/20 07:38	C4EI	ELLE
Total/NA	Analysis	8270D		1	21582	07/12/20 18:17	LW6J	ELLE
Total/NA	Prep	RSK-175			20389	07/08/20 10:09	IYN5	ELLE
Total/NA	Analysis	RSK-175		1	20373	07/09/20 08:26	IYN5	ELLE
Total/NA	Prep	8011			21104	07/10/20 01:03	K2IL	ELLE
Total/NA	Analysis	8011		1	21390	07/11/20 01:17	AC3T	ELLE
Total/NA	Prep	3510C			22454	07/14/20 17:36	OT54	ELLE
Total/NA	Analysis	8015C		1	23645	07/16/20 19:03	KP5X	ELLE
Total/NA	Analysis	Total TPH		1	28450	07/31/20 09:17	KP5X	ELLE
Total/NA	Analysis	300.0		5	20491	07/09/20 06:19	WHJ3	ELLE
Total/NA	Analysis	300.0		100	24688	07/21/20 16:30	GJ35	ELLE
Total Recoverable	Prep	3005A			20198	07/08/20 02:43	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	21809	07/13/20 08:20	ULJC	ELLE
Total Recoverable	Prep	3005A			20198	07/08/20 02:43	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	22161	07/14/20 07:24	ULJC	ELLE
Dissolved	Filtration	Filtration			20216	07/08/20 05:15	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			20694	07/09/20 05:46	UJL8	ELLE
Dissolved	Analysis	6020A		1	21190	07/09/20 17:45	S2GN	ELLE
Total/NA	Analysis	SM 2320B		1	21353	07/10/20 04:52	DI9Q	ELLE
Total/NA	Analysis	SM 4500 S2 D		1	20451	07/08/20 13:18	P8DZ	ELLE
Total/NA	Prep	SM 4500 NH3 B			22277	07/14/20 10:44	UYB0	ELLE
Total/NA	Analysis	SM4500 NH3		1	22320	07/14/20 12:36	UYB0	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Job ID: 410-6786-1
Project/Site: PHL Penrose Drilling Sample

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015C	3510C	Water	>C12-C22 (1C)
8015C	3510C	Water	>C22-C44 (1C)
Total TPH		Water	Total Reported TPH

Method Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-6786-1

Method	Method Description	Protocol	Laboratory
8260C/UST	Volatile Organic Compounds (GC/MS)	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
RSK-175	Dissolved Gases (GC)	RSK	ELLE
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	ELLE
Total TPH	Total TPH	None	ELLE
300.0	Anions, Ion Chromatography	MCAWW	ELLE
6010C	Metals (ICP)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
SM 2320B	Alkalinity	SM	ELLE
SM 4500 S2 D	Sulfide, Total	SM	ELLE
SM4500 NH3	Ammonia	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
8011	Microextraction	SW846	ELLE
Filtration	Sample Filtration	None	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE
SM 4500 NH3 B	Distillation, Ammonia	SM	ELLE

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-6786-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-6786-1	CD-13B-W-40.0-20200707	Water	07/07/20 09:25	07/07/20 16:05	

Environmental Analysis Request and Chain of Custody

eurofins | Lancaster Laboratories Environmental

Acct. # _____

410-6786 Chain of Custody

For lab use only _____

COC # 608858

Client Information

Client: Evergreen c/o Stantec	Acct. #: 166057
Project Name: PHL Penrose Drilling Sampling	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 2134026002
Sampler: Dane Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ | Water ☒ Potable ☐ Ground ☐ NPDES ☐ Surface ☐ | Other: ____

Analysis Requested

Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	Custom TPH w/ Ranges	TPH - GRO 8260 / moisture	Metal 6010 / Lead dissolved 6020 / Total 6010	Sulfide	Chloride, Nitrate Nitrogen, Sulfate	Volatile Headspace Hydrocarbons	Total Alkalinity to 4.5	Ammonia Nitrogen	*Short List VOCs 8260 Including TBA 8260 + EDB 8011	*Short List SVOCs 8270
CD-13B-W-40.0-20200707	7/7/20	0925	X		17	X	X	X	X	X	X	X	X	X	X

For Lab Use Only
FSC: _____
SCR#: _____

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks
* refer to Evergreen Petroleum Short List for list of analytes

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: Andrew.Klingbeil@Stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)
Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13
NYSDEC Category A or B | MA MCP | CT RCP

Relinquished by	Date	Time	Received by	Date	Time
Dane	7/7/20	11:35	Prenn	7/7/20	11:35
Prenn	7/7/20	1046			
			(N Mathus	7/7/20	1605

EDD Required? Yes No
If yes, format: EQUIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____

Temperature upon receipt 0.5 °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT https://www.eurofinsus.com/coc

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0919

ATM

Login Sample Receipt Checklist

Client: Stantec Consulting Corp. Job Number: 410-6786-1

Login Number: 6786 **List Source: Eurofins Lancaster Laboratories Env**
List Number: 1
Creator: Mathers, William

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-7163-1
Client Project/Site: PHL Penrose Drilling Sample
Revision: 1

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Andrew Klingbeil

Authorized for release by:
11/5/2020 5:03:51 PM

Amek Carter, Project Manager
(717)556-7252
amekcarter@eurofinsus.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
11/5/2020 5:03:51 PM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 6
Detection Summary 7
Client Sample Results 8
Surrogate Summary 12
QC Sample Results 15
QC Association Summary 28
Lab Chronicle 33
Certification Summary 35
Method Summary 36
Sample Summary 37
Chain of Custody 38
Receipt Checklists 40

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-7163-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
*H	LCS and/or LCSD recovery above control limits.
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
XH	Surrogate recovery is above control limits
XL	Surrogate recovery is below control limits

HPLC/IC

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
FL	MS and/or MSD recovery below control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-7163-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-7163-1

Revision
The report being provided is a revision of the original report sent on 8/21/2020. The report (revision 1) is being revised due to: Analyte List Change - Added TBA.

Receipt
The samples were received on 7/9/2020 4:15 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.4º C.

Receipt Exceptions
The following sample was received outside of holding time for Nitrate: CD-13A-W-39.0-20200709 (410-7163-2).

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA
Method 8011: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 410-25374 and analytical batch 410-25771 recovered outside control limits for the following analytes: Ethylene Dibromide. These analytes were biased high in the LCS and LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method 8015C: Chlorobenzene surrogate recovery for the following sample was outside control limits: CD-13A-W-39.0-20200709 (410-7163-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015C: Chlorobenzene and o-terphenyl surrogate recoveries for the following sample were outside control limits: CD-13A-S-39.0-20200709 (410-7163-1). Re-extraction was performed outside of holding time with acceptable results. Results are reported from the first trial.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method Filtration: The following sample was not filtered within 15 minutes of sample collection as required by the method: CD-13A-W-39.0-20200709 (410-7163-2). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method 8011: The following sample was prepared outside of preparation holding time for method 8011_Prep/8011 due to a scheduling error : TB-20200709 (410-7163-3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-7163-1

Client Sample ID: CD-13A-S-39.0-20200709 — Lab Sample ID: 410-7163-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	67		4.9	0.39	ug/Kg	1	☼	8260C	Total/NA
1,3,5-Trimethylbenzene	4.6	J	4.9	0.49	ug/Kg	1	☼	8260C	Total/NA
Toluene	17		4.9	0.59	ug/Kg	1	☼	8260C	Total/NA
Benzene	0.61	J	4.9	0.49	ug/Kg	1	☼	8260C	Total/NA
Naphthalene	22		4.9	2.0	ug/Kg	1	☼	8260C	Total/NA
1,2,4-Trimethylbenzene	7.4		4.9	0.49	ug/Kg	1	☼	8260C	Total/NA
Isopropylbenzene	11		4.9	0.39	ug/Kg	1	☼	8260C	Total/NA
C4-C12-TPH-GRO	4100		110	43	ug/Kg	1	☼	8260C	Total/NA
Xylenes, Total	39		9.9	1.4	ug/Kg	1	☼	8260C	Total/NA
Naphthalene	75		19	7.7	ug/Kg	1	☼	8270D	Total/NA
>C22-C44 (1C)	11	J	14	5.8	mg/Kg	1	☼	8015C	Total/NA
Total Reported TPH	11		0.23	0.086	mg/Kg	1	☼	Total TPH	Total/NA
Lead	0.82	J	1.2	0.49	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: CD-13A-W-39.0-20200709 — Lab Sample ID: 410-7163-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	24	J	25	5.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	26		25	1.5	ug/L	5		8260C/UST	Total/NA
Benzene	3.5	J	5.0	1.0	ug/L	5		8260C/UST	Total/NA
C4-C12-TPH-GRO	16000		250	150	ug/L	5		8260C/UST	Total/NA
Ethylbenzene	430		5.0	2.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	85		25	1.0	ug/L	5		8260C/UST	Total/NA
Toluene	94		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	310		30	7.0	ug/L	5		8260C/UST	Total/NA
Fluorene	0.19	J	0.50	0.10	ug/L	1		8270D	Total/NA
Naphthalene	47		0.50	0.10	ug/L	1		8270D	Total/NA
Phenanthrene	0.14	J	0.50	0.10	ug/L	1		8270D	Total/NA
Ethane (1C)	1.3	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	22000		500	300	ug/L	100		RSK-175	Total/NA
>C12-C22 (1C)	0.22		0.095	0.035	mg/L	1		8015C	Total/NA
>C22-C44 (1C)	0.070	J	0.095	0.035	mg/L	1		8015C	Total/NA
Total Reported TPH	0.29		0.20	0.074	mg/L	1		Total TPH	Total/NA
Chloride	11		0.12	0.014	mg/L	1		300.0	Total/NA
Nitrate as N	0.17	H	0.10	0.056	mg/L	1		300.0	Total/NA
Sulfate	30		0.60	0.35	mg/L	1		300.0	Total/NA
Calcium	20		0.20	0.096	mg/L	1		6010C	Total Recoverable
Iron	15		0.20	0.040	mg/L	1		6010C	Total Recoverable
Magnesium	16		0.10	0.040	mg/L	1		6010C	Total Recoverable
Potassium	2.6		0.50	0.20	mg/L	1		6010C	Total Recoverable
Sodium	27	B	1.0	0.24	mg/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	150		8.0	8.0	mg/L	1		SM 2320B	Total/NA
Ammonia-N	0.57	J	1.1	0.36	mg/L	1		SM4500 NH3	Total/NA

Client Sample ID: TB-20200709 — Lab Sample ID: 410-7163-3

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample ID: CD-13A-S-39.0-20200709

Date Collected: 07/09/20 09:00
Date Received: 07/09/20 16:15

Lab Sample ID: 410-7163-1

Matrix: Solid
Percent Solids: 85.7

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**67**		4.9	0.39	ug/Kg	☼	07/11/20 19:00	07/23/20 14:24	1
1,3,5-Trimethylbenzene	**4.6**	**J**	4.9	0.49	ug/Kg	☼	07/11/20 19:00	07/23/20 14:24	1
Toluene	**17**		4.9	0.59	ug/Kg	☼	07/11/20 19:00	07/23/20 14:24	1
Methyl tertiary butyl ether	ND		4.9	0.49	ug/Kg	☼	07/11/20 19:00	07/23/20 14:24	1
Benzene	**0.61**	**J**	4.9	0.49	ug/Kg	☼	07/11/20 19:00	07/23/20 14:24	1
Naphthalene	**22**		4.9	2.0	ug/Kg	☼	07/11/20 19:00	07/23/20 14:24	1
1,2,4-Trimethylbenzene	**7.4**		4.9	0.49	ug/Kg	☼	07/11/20 19:00	07/23/20 14:24	1
Isopropylbenzene	**11**		4.9	0.39	ug/Kg	☼	07/11/20 19:00	07/23/20 14:24	1
1,2-Dibromoethane	ND		4.9	0.39	ug/Kg	☼	07/11/20 19:00	07/23/20 14:24	1
1,2-Dichloroethane	ND		4.9	0.59	ug/Kg	☼	07/11/20 19:00	07/23/20 14:24	1
C4-C12-TPH-GRO	**4100**		110	43	ug/Kg	☼	07/11/20 19:00	07/23/20 14:24	1
Xylenes, Total	**39**		9.9	1.4	ug/Kg	☼	07/11/20 19:00	07/23/20 14:24	1
t-Butyl alcohol	ND		99	15	ug/Kg	☼	07/11/20 19:00	07/23/20 14:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*54 - 135*	*07/11/20 19:00*	*07/23/20 14:24*	*1*
4-Bromofluorobenzene (Surr)	*100*		*50 - 131*	*07/11/20 19:00*	*07/23/20 14:24*	*1*
Dibromofluoromethane (Surr)	*100*		*50 - 141*	*07/11/20 19:00*	*07/23/20 14:24*	*1*
Toluene-d8 (Surr)	*107*		*52 - 141*	*07/11/20 19:00*	*07/23/20 14:24*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		19	3.9	ug/Kg	☼	07/13/20 16:34	07/15/20 20:30	1
Benzo[a]anthracene	ND		19	7.7	ug/Kg	☼	07/13/20 16:34	07/15/20 20:30	1
Benzo[a]pyrene	ND		19	3.9	ug/Kg	☼	07/13/20 16:34	07/15/20 20:30	1
Benzo[b]fluoranthene	ND		19	3.9	ug/Kg	☼	07/13/20 16:34	07/15/20 20:30	1
Benzo[g,h,i]perylene	ND		19	3.9	ug/Kg	☼	07/13/20 16:34	07/15/20 20:30	1
Chrysene	ND		19	3.9	ug/Kg	☼	07/13/20 16:34	07/15/20 20:30	1
Fluorene	ND		19	3.9	ug/Kg	☼	07/13/20 16:34	07/15/20 20:30	1
Naphthalene	**75**		19	7.7	ug/Kg	☼	07/13/20 16:34	07/15/20 20:30	1
Phenanthrene	ND		19	3.9	ug/Kg	☼	07/13/20 16:34	07/15/20 20:30	1
Pyrene	ND		19	3.9	ug/Kg	☼	07/13/20 16:34	07/15/20 20:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*86*		*34 - 117*	*07/13/20 16:34*	*07/15/20 20:30*	*1*
Nitrobenzene-d5 (Surr)	*78*		*23 - 115*	*07/13/20 16:34*	*07/15/20 20:30*	*1*
p-Terphenyl-d14 (Surr)	*101*		*35 - 135*	*07/13/20 16:34*	*07/15/20 20:30*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		14	5.8	mg/Kg	☼	07/10/20 16:20	07/14/20 17:56	1
>C22-C44 (1C)	**11**	**J**	14	5.8	mg/Kg	☼	07/10/20 16:20	07/14/20 17:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o- terphenyl (Surr) (1C)	*4*	*XL*	*42 - 143*	*07/10/20 16:20*	*07/14/20 17:56*	*1*
Chlorobenzene (Surr) (1C)	*5*	*XL*	*54 - 137*	*07/10/20 16:20*	*07/14/20 17:56*	*1*

Method: Total TPH - Total TPH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Reported TPH	**11**		0.23	0.086	mg/Kg	☼		07/31/20 09:17	1

Client Sample ID: CD-13A-S-39.0-20200709

Lab Sample ID: 410-7163-1
Date Collected: 07/09/20 09:00
Matrix: Solid
Date Received: 07/09/20 16:15
Percent Solids: 85.7

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.82	J	1.2	0.49	mg/Kg	☼	07/10/20 05:52	07/20/20 09:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14.3		1.0	1.0	%			07/09/20 20:43	1

Client Sample ID: CD-13A-W-39.0-20200709

Lab Sample ID: 410-7163-2
Date Collected: 07/09/20 11:30
Matrix: Water
Date Received: 07/09/20 16:15

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	24	J	25	5.0	ug/L			07/16/20 12:09	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			07/16/20 12:09	5
1,3,5-Trimethylbenzene	26		25	1.5	ug/L			07/16/20 12:09	5
Benzene	3.5	J	5.0	1.0	ug/L			07/16/20 12:09	5
C4-C12-TPH-GRO	16000		250	150	ug/L			07/16/20 12:09	5
Ethylbenzene	430		5.0	2.0	ug/L			07/16/20 12:09	5
Isopropylbenzene	85		25	1.0	ug/L			07/16/20 12:09	5
Methyl tertiary butyl ether	ND		5.0	1.0	ug/L			07/16/20 12:09	5
Toluene	94		5.0	1.0	ug/L			07/16/20 12:09	5
Xylenes, Total	310		30	7.0	ug/L			07/16/20 12:09	5
2-Methyl-2-propanol	ND		250	60	ug/L			07/16/20 12:09	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*89*		*80 - 120*		*07/16/20 12:09*	*5*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*07/16/20 12:09*	*5*
Dibromofluoromethane (Surr)	*106*		*80 - 120*		*07/16/20 12:09*	*5*
Toluene-d8 (Surr)	*97*		*80 - 120*		*07/16/20 12:09*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		07/13/20 18:03	07/14/20 21:19	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		07/13/20 18:03	07/14/20 21:19	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		07/13/20 18:03	07/14/20 21:19	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		07/13/20 18:03	07/14/20 21:19	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		07/13/20 18:03	07/14/20 21:19	1
Chrysene	ND		0.50	0.10	ug/L		07/13/20 18:03	07/14/20 21:19	1
Fluorene	0.19	J	0.50	0.10	ug/L		07/13/20 18:03	07/14/20 21:19	1
Naphthalene	47		0.50	0.10	ug/L		07/13/20 18:03	07/14/20 21:19	1
Phenanthrene	0.14	J	0.50	0.10	ug/L		07/13/20 18:03	07/14/20 21:19	1
Pyrene	ND		0.50	0.10	ug/L		07/13/20 18:03	07/14/20 21:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*63*		*44 - 102*	*07/13/20 18:03*	*07/14/20 21:19*	*1*
Nitrobenzene-d5 (Surr)	*59*		*38 - 113*	*07/13/20 18:03*	*07/14/20 21:19*	*1*
p-Terphenyl-d14 (Surr)	*75*		*34 - 128*	*07/13/20 18:03*	*07/14/20 21:19*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	1.3	J	5.0	1.0	ug/L		07/13/20 10:50	07/13/20 17:02	1

Client Sample ID: CD-13A-W-39.0-20200709

Date Collected: 07/09/20 11:30
Date Received: 07/09/20 16:15

Lab Sample ID: 410-7163-2

Matrix: Water

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethene (1C)	ND		5.0	1.0	ug/L		07/13/20 10:50	07/13/20 17:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*73*		*28 - 140*	*07/13/20 10:50*	*07/13/20 17:02*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**22000**		500	300	ug/L		07/14/20 08:39	07/14/20 13:33	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*77*		*28 - 140*	*07/14/20 08:39*	*07/14/20 13:33*	*100*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND	*H	0.029	0.0096	ug/L		07/22/20 23:56	07/24/20 00:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*77*		*46 - 136*	*07/22/20 23:56*	*07/24/20 00:06*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*69*		*46 - 136*	*07/22/20 23:56*	*07/24/20 00:06*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	**0.22**		0.095	0.035	mg/L		07/13/20 09:12	07/14/20 13:24	1
>C22-C44 (1C)	**0.070**	**J**	0.095	0.035	mg/L		07/13/20 09:12	07/14/20 13:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o- terphenyl (Surr) (1C)	*83*		*51 - 126*	*07/13/20 09:12*	*07/14/20 13:24*	*1*
Chlorobenzene (Surr) (1C)	*155*	*XH*	*21 - 116*	*07/13/20 09:12*	*07/14/20 13:24*	*1*

Method: Total TPH - Total TPH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Reported TPH	**0.29**		0.20	0.074	mg/L			07/31/20 09:17	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11**		0.12	0.014	mg/L			07/21/20 10:53	1
Nitrate as N	**0.17**	**H**	0.10	0.056	mg/L			07/21/20 10:53	1
Sulfate	**30**		0.60	0.35	mg/L			07/21/20 10:53	1

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**20**		0.20	0.096	mg/L		07/10/20 08:00	07/13/20 16:35	1
Iron	**15**		0.20	0.040	mg/L		07/10/20 08:00	07/13/20 16:35	1
Magnesium	**16**		0.10	0.040	mg/L		07/10/20 08:00	07/13/20 16:35	1
Potassium	**2.6**		0.50	0.20	mg/L		07/10/20 08:00	07/13/20 16:35	1
Sodium	**27**	**B**	1.0	0.24	mg/L		07/10/20 08:00	07/13/20 16:35	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		07/22/20 05:02	07/22/20 10:03	1

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-7163-1

Client Sample ID: CD-13A-W-39.0-20200709

Lab Sample ID: 410-7163-2
Matrix: Water
Date Collected: 07/09/20 11:30
Date Received: 07/09/20 16:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	150		8.0	8.0	mg/L			07/10/20 23:23	1
Sulfide	ND	FL	0.30	0.10	mg/L			07/10/20 11:17	1
Ammonia-N	0.57	J	1.1	0.36	mg/L		07/22/20 11:50	07/22/20 15:08	1

Client Sample ID: TB-20200709

Lab Sample ID: 410-7163-3
Matrix: Water
Date Collected: 07/09/20 00:00
Date Received: 07/09/20 16:15

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			07/16/20 11:21	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			07/16/20 11:21	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			07/16/20 11:21	1
Benzene	ND		1.0	0.20	ug/L			07/16/20 11:21	1
C4-C12-TPH-GRO	ND		50	29	ug/L			07/16/20 11:21	1
Ethylbenzene	ND		1.0	0.40	ug/L			07/16/20 11:21	1
Isopropylbenzene	ND		5.0	0.20	ug/L			07/16/20 11:21	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			07/16/20 11:21	1
Toluene	ND		1.0	0.20	ug/L			07/16/20 11:21	1
Xylenes, Total	ND		6.0	1.4	ug/L			07/16/20 11:21	1
2-Methyl-2-propanol	ND		50	12	ug/L			07/16/20 11:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*		*07/16/20 11:21*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*07/16/20 11:21*	*1*
Dibromofluoromethane (Surr)	*94*		*80 - 120*		*07/16/20 11:21*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*07/16/20 11:21*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND	H	0.029	0.0096	ug/L		08/11/20 12:00	08/11/20 23:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*52*		*46 - 136*	*08/11/20 12:00*	*08/11/20 23:05*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*55*		*46 - 136*	*08/11/20 12:00*	*08/11/20 23:05*	*1*

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-7163-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(54-135)	(50-131)	(50-141)	(52-141)
410-7163-1	CD-13A-S-39.0-20200709	103	100	100	107
LCS 410-25505/5	Lab Control Sample	101	99	100	103
LCS 410-25505/7	Lab Control Sample	100	98	99	102
LCSD 410-25505/6	Lab Control Sample Dup	98	98	100	103
LCSD 410-25505/8	Lab Control Sample Dup	99	96	98	103
MB 410-25505/9	Method Blank	101	95	100	102

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-7163-2	CD-13A-W-39.0-20200709	89	97	106	97
410-7163-3	TB-20200709	90	98	94	97
LCS 410-23070/8	Lab Control Sample	92	95	105	97
LCSD 410-23070/9	Lab Control Sample Dup	82	88	94	99
MB 410-23070/5	Method Blank	101	88	116	92

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(34-117)	(23-115)	(35-135)
410-7163-1	CD-13A-S-39.0-20200709	86	78	101
LCS 410-21966/2-A	Lab Control Sample	79	73	99
MB 410-21966/1-A	Method Blank	90	82	110

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Surrogate Summary

Client: Stantec Consulting Corp.
Job ID: 410-7163-1
Project/Site: PHL Penrose Drilling Sample

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(44-102)	(38-113)	(34-128)
410-7163-2	CD-13A-W-39.0-20200709	63	59	75
LCS 410-21997/2-A	Lab Control Sample	70	73	94
MB 410-21997/1-A	Method Blank	70	73	105

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
		Propene1
Lab Sample ID	Client Sample ID	(28-140)
410-7163-2	CD-13A-W-39.0-20200709	73
410-7163-2 - DL	CD-13A-W-39.0-20200709	77
LCS 410-21864/2-A	Lab Control Sample	103
LCS 410-22175/2-A	Lab Control Sample	99
LCSD 410-21864/3-A	Lab Control Sample Dup	103
LCSD 410-22175/3-A	Lab Control Sample Dup	100
MB 410-21864/1-A	Method Blank	101
MB 410-22175/1-A	Method Blank	97

Surrogate Legend

Propene = Propene

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		1122TCA1	1122TCA2
Lab Sample ID	Client Sample ID	(46-136)	(46-136)
410-7163-2	CD-13A-W-39.0-20200709	77	69
410-7163-3	TB-20200709	52	55
LCS 410-25374/2-A	Lab Control Sample	63	61
LCS 410-31854/2-A	Lab Control Sample	58	57
LCSD 410-25374/3-A	Lab Control Sample Dup	59	58
LCSD 410-31854/3-A	Lab Control Sample Dup	51	58
MB 410-25374/1-A	Method Blank	62	62
MB 410-31854/1-A	Method Blank	60	59

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Solid
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		OTP1	CBNZ1
Lab Sample ID	Client Sample ID	(42-143)	(54-137)
410-7163-1	CD-13A-S-39.0-20200709	4 XL	5 XL
LCS 410-21373/2-A	Lab Control Sample	101	76

Surrogate Summary

Client: Stantec Consulting Corp. Job ID: 410-7163-1
Project/Site: PHL Penrose Drilling Sample

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		OTP1	CBNZ1
Lab Sample ID	Client Sample ID	(42-143)	(54-137)
MB 410-21373/1-A	Method Blank	92	73

Surrogate Legend

OTP = o- terphenyl (Surr)

CBNZ = Chlorobenzene (Surr)

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		OTP1	CBNZ1
Lab Sample ID	Client Sample ID	(51-126)	(21-116)
410-7163-2	CD-13A-W-39.0-20200709	83	155 XH
LCS 410-21706/2-A	Lab Control Sample	91	67
LCSD 410-21706/3-A	Lab Control Sample Dup	89	61
MB 410-21706/1-A	Method Blank	83	64

Surrogate Legend

OTP = o- terphenyl (Surr)

CBNZ = Chlorobenzene (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-25505/9
Matrix: Solid
Analysis Batch: 25505

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		5.0	0.40	ug/Kg			07/23/20 11:51	1
1,3,5-Trimethylbenzene	ND		5.0	0.50	ug/Kg			07/23/20 11:51	1
Toluene	ND		5.0	0.60	ug/Kg			07/23/20 11:51	1
Methyl tertiary butyl ether	ND		5.0	0.50	ug/Kg			07/23/20 11:51	1
Benzene	ND		5.0	0.50	ug/Kg			07/23/20 11:51	1
Naphthalene	ND		5.0	2.0	ug/Kg			07/23/20 11:51	1
1,2,4-Trimethylbenzene	ND		5.0	0.50	ug/Kg			07/23/20 11:51	1
Isopropylbenzene	ND		5.0	0.40	ug/Kg			07/23/20 11:51	1
1,2-Dibromoethane	ND		5.0	0.40	ug/Kg			07/23/20 11:51	1
1,2-Dichloroethane	ND		5.0	0.60	ug/Kg			07/23/20 11:51	1
C4-C12-TPH-GRO	ND		110	44	ug/Kg			07/23/20 11:51	1
Xylenes, Total	ND		10	1.4	ug/Kg			07/23/20 11:51	1
t-Butyl alcohol	ND		100	15	ug/Kg			07/23/20 11:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*54 - 135*		*07/23/20 11:51*	*1*
4-Bromofluorobenzene (Surr)	*95*		*50 - 131*		*07/23/20 11:51*	*1*
Dibromofluoromethane (Surr)	*100*		*50 - 141*		*07/23/20 11:51*	*1*
Toluene-d8 (Surr)	*102*		*52 - 141*		*07/23/20 11:51*	*1*

Lab Sample ID: LCS 410-25505/5
Matrix: Solid
Analysis Batch: 25505

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylbenzene			20.0	20.6		ug/Kg		103	78 - 120		
1,3,5-Trimethylbenzene			20.0	21.0		ug/Kg		105	73 - 120		
Toluene			20.0	21.5		ug/Kg		107	80 - 120		
Methyl tertiary butyl ether			20.0	18.6		ug/Kg		93	72 - 120		
Benzene			20.0	21.1		ug/Kg		106	80 - 120		
Naphthalene			20.0	19.0		ug/Kg		95	48 - 130		
1,2,4-Trimethylbenzene			20.0	21.0		ug/Kg		105	73 - 120		
Isopropylbenzene			20.0	21.1		ug/Kg		105	77 - 120		
1,2-Dibromoethane			20.0	20.8		ug/Kg		104	76 - 120		
1,2-Dichloroethane			20.0	20.7		ug/Kg		104	71 - 128		
Xylenes, Total			60.0	65.2		ug/Kg		109	75 - 120		
t-Butyl alcohol			200	221		ug/Kg		111	74 - 121		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*54 - 135*
4-Bromofluorobenzene (Surr)	*99*		*50 - 131*
Dibromofluoromethane (Surr)	*100*		*50 - 141*
Toluene-d8 (Surr)	*103*		*52 - 141*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-25505/7
Matrix: Solid
Analysis Batch: 25505

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C4-C12-TPH-GRO			1000	1030		ug/Kg		103	75 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*54 - 135*
4-Bromofluorobenzene (Surr)	*98*		*50 - 131*
Dibromofluoromethane (Surr)	*99*		*50 - 141*
Toluene-d8 (Surr)	*102*		*52 - 141*

Lab Sample ID: LCSD 410-25505/6
Matrix: Solid
Analysis Batch: 25505

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene			20.0	20.7		ug/Kg		104	78 - 120	1	30
1,3,5-Trimethylbenzene			20.0	21.1		ug/Kg		105	73 - 120	1	30
Toluene			20.0	21.4		ug/Kg		107	80 - 120	0	30
Methyl tertiary butyl ether			20.0	18.2		ug/Kg		91	72 - 120	2	30
Benzene			20.0	21.3		ug/Kg		106	80 - 120	1	30
Naphthalene			20.0	18.1		ug/Kg		90	48 - 130	5	30
1,2,4-Trimethylbenzene			20.0	21.1		ug/Kg		105	73 - 120	0	30
Isopropylbenzene			20.0	21.0		ug/Kg		105	77 - 120	0	30
1,2-Dibromoethane			20.0	20.2		ug/Kg		101	76 - 120	3	30
1,2-Dichloroethane			20.0	20.4		ug/Kg		102	71 - 128	2	30
Xylenes, Total			60.0	64.7		ug/Kg		108	75 - 120	1	30
t-Butyl alcohol			200	225		ug/Kg		113	74 - 121	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*54 - 135*
4-Bromofluorobenzene (Surr)	*98*		*50 - 131*
Dibromofluoromethane (Surr)	*100*		*50 - 141*
Toluene-d8 (Surr)	*103*		*52 - 141*

Lab Sample ID: LCSD 410-25505/8
Matrix: Solid
Analysis Batch: 25505

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C4-C12-TPH-GRO			1000	1000		ug/Kg		100	75 - 120	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*54 - 135*
4-Bromofluorobenzene (Surr)	*96*		*50 - 131*
Dibromofluoromethane (Surr)	*98*		*50 - 141*
Toluene-d8 (Surr)	*103*		*52 - 141*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-23070/5
Matrix: Water
Analysis Batch: 23070

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			07/16/20 09:15	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			07/16/20 09:15	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			07/16/20 09:15	1
Benzene	ND		1.0	0.20	ug/L			07/16/20 09:15	1
C4-C12-TPH-GRO	ND		50	29	ug/L			07/16/20 09:15	1
Ethylbenzene	ND		1.0	0.40	ug/L			07/16/20 09:15	1
Isopropylbenzene	ND		5.0	0.20	ug/L			07/16/20 09:15	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			07/16/20 09:15	1
Toluene	ND		1.0	0.20	ug/L			07/16/20 09:15	1
Xylenes, Total	ND		6.0	1.4	ug/L			07/16/20 09:15	1
2-Methyl-2-propanol	ND		50	12	ug/L			07/16/20 09:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*		*07/16/20 09:15*	*1*
4-Bromofluorobenzene (Surr)	*88*		*80 - 120*		*07/16/20 09:15*	*1*
Dibromofluoromethane (Surr)	*116*		*80 - 120*		*07/16/20 09:15*	*1*
Toluene-d8 (Surr)	*92*		*80 - 120*		*07/16/20 09:15*	*1*

Lab Sample ID: LCS 410-23070/8
Matrix: Water
Analysis Batch: 23070

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C4-C12-TPH-GRO			1000	1030		ug/L		103	67 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*
Dibromofluoromethane (Surr)	*105*		*80 - 120*
Toluene-d8 (Surr)	*97*		*80 - 120*

Lab Sample ID: LCSD 410-23070/9
Matrix: Water
Analysis Batch: 23070

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C4-C12-TPH-GRO			1000	998		ug/L		100	67 - 120	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*82*		*80 - 120*
4-Bromofluorobenzene (Surr)	*88*		*80 - 120*
Dibromofluoromethane (Surr)	*94*		*80 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-21966/1-A
Matrix: Solid
Analysis Batch: 22189

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21966

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		17	3.3	ug/Kg		07/13/20 16:34	07/14/20 11:55	1
Benzo[a]anthracene	ND		17	6.7	ug/Kg		07/13/20 16:34	07/14/20 11:55	1
Benzo[a]pyrene	ND		17	3.3	ug/Kg		07/13/20 16:34	07/14/20 11:55	1
Benzo[b]fluoranthene	ND		17	3.3	ug/Kg		07/13/20 16:34	07/14/20 11:55	1
Benzo[g,h,i]perylene	ND		17	3.3	ug/Kg		07/13/20 16:34	07/14/20 11:55	1
Chrysene	ND		17	3.3	ug/Kg		07/13/20 16:34	07/14/20 11:55	1
Fluorene	ND		17	3.3	ug/Kg		07/13/20 16:34	07/14/20 11:55	1
Naphthalene	ND		17	6.7	ug/Kg		07/13/20 16:34	07/14/20 11:55	1
Phenanthrene	ND		17	3.3	ug/Kg		07/13/20 16:34	07/14/20 11:55	1
Pyrene	ND		17	3.3	ug/Kg		07/13/20 16:34	07/14/20 11:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*90*		*34 - 117*	*07/13/20 16:34*	*07/14/20 11:55*	*1*
Nitrobenzene-d5 (Surr)	*82*		*23 - 115*	*07/13/20 16:34*	*07/14/20 11:55*	*1*
p-Terphenyl-d14 (Surr)	*110*		*35 - 135*	*07/13/20 16:34*	*07/14/20 11:55*	*1*

Lab Sample ID: LCS 410-21966/2-A
Matrix: Solid
Analysis Batch: 22189

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21966

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	1670	1610		ug/Kg		96	67 - 120
Benzo[a]anthracene	1670	1500		ug/Kg		90	68 - 120
Benzo[a]pyrene	1670	1690		ug/Kg		101	68 - 119
Benzo[b]fluoranthene	1670	1760		ug/Kg		105	67 - 125
Benzo[g,h,i]perylene	1670	1740		ug/Kg		104	68 - 125
Chrysene	1670	1420		ug/Kg		85	66 - 111
Fluorene	1670	1490		ug/Kg		89	62 - 110
Naphthalene	1680	1230		ug/Kg		74	49 - 104
Phenanthrene	1670	1560		ug/Kg		93	67 - 116
Pyrene	1680	1480		ug/Kg		88	67 - 109

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*79*		*34 - 117*
Nitrobenzene-d5 (Surr)	*73*		*23 - 115*
p-Terphenyl-d14 (Surr)	*99*		*35 - 135*

Lab Sample ID: MB 410-21997/1-A
Matrix: Water
Analysis Batch: 22199

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21997

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		07/13/20 18:03	07/14/20 11:44	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		07/13/20 18:03	07/14/20 11:44	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		07/13/20 18:03	07/14/20 11:44	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		07/13/20 18:03	07/14/20 11:44	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		07/13/20 18:03	07/14/20 11:44	1
Chrysene	ND		0.50	0.10	ug/L		07/13/20 18:03	07/14/20 11:44	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-21997/1-A
Matrix: Water
Analysis Batch: 22199

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21997

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	ND		0.50	0.10	ug/L		07/13/20 18:03	07/14/20 11:44	1
Naphthalene	ND		0.50	0.10	ug/L		07/13/20 18:03	07/14/20 11:44	1
Phenanthrene	ND		0.50	0.10	ug/L		07/13/20 18:03	07/14/20 11:44	1
Pyrene	ND		0.50	0.10	ug/L		07/13/20 18:03	07/14/20 11:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*70*		*44 - 102*	*07/13/20 18:03*	*07/14/20 11:44*	*1*
Nitrobenzene-d5 (Surr)	*73*		*38 - 113*	*07/13/20 18:03*	*07/14/20 11:44*	*1*
p-Terphenyl-d14 (Surr)	*105*		*34 - 128*	*07/13/20 18:03*	*07/14/20 11:44*	*1*

Lab Sample ID: LCS 410-21997/2-A
Matrix: Water
Analysis Batch: 22199

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21997

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.1	42.3		ug/L		84	67 - 116
Benzo[a]anthracene	50.0	47.0		ug/L		94	68 - 123
Benzo[a]pyrene	50.2	45.1		ug/L		90	71 - 117
Benzo[b]fluoranthene	50.1	47.7		ug/L		95	69 - 121
Benzo[g,h,i]perylene	50.1	40.2		ug/L		80	60 - 119
Chrysene	50.0	44.7		ug/L		89	65 - 121
Fluorene	50.1	40.3		ug/L		80	56 - 115
Naphthalene	50.4	34.0		ug/L		67	51 - 102
Phenanthrene	50.2	43.1		ug/L		86	65 - 113
Pyrene	50.4	41.9		ug/L		83	65 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*70*		*44 - 102*
Nitrobenzene-d5 (Surr)	*73*		*38 - 113*
p-Terphenyl-d14 (Surr)	*94*		*34 - 128*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-21864/1-A
Matrix: Water
Analysis Batch: 21876

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21864

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		07/13/20 10:50	07/13/20 11:31	1
Ethene (1C)	ND		5.0	1.0	ug/L		07/13/20 10:50	07/13/20 11:31	1
Methane (1C)	ND		5.0	3.0	ug/L		07/13/20 10:50	07/13/20 11:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*101*		*28 - 140*	*07/13/20 10:50*	*07/13/20 11:31*	*1*

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCS 410-21864/2-A
Matrix: Water
Analysis Batch: 21876

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21864

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	58.7		ug/L		99	85 - 115		
Ethene (1C)			60.4	60.6		ug/L		100	83 - 115		
Methane (1C)			59.4	63.3		ug/L		107	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*103*		*28 - 140*

Lab Sample ID: LCSD 410-21864/3-A
Matrix: Water
Analysis Batch: 21876

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21864

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	60.2		ug/L		101	85 - 115	2	20
Ethene (1C)			60.4	62.2		ug/L		103	83 - 115	3	20
Methane (1C)			59.4	64.3		ug/L		108	85 - 115	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*103*		*28 - 140*

Lab Sample ID: MB 410-22175/1-A
Matrix: Water
Analysis Batch: 22207

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 22175

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		07/14/20 08:39	07/14/20 09:49	1
Ethene (1C)	ND		5.0	1.0	ug/L		07/14/20 08:39	07/14/20 09:49	1
Methane (1C)	ND		5.0	3.0	ug/L		07/14/20 08:39	07/14/20 09:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*97*		*28 - 140*	*07/14/20 08:39*	*07/14/20 09:49*	*1*

Lab Sample ID: LCS 410-22175/2-A
Matrix: Water
Analysis Batch: 22207

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 22175

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	58.9		ug/L		99	85 - 115		
Ethene (1C)			60.4	61.4		ug/L		102	83 - 115		
Methane (1C)			59.4	61.7		ug/L		104	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*99*		*28 - 140*

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCSD 410-22175/3-A
Matrix: Water
Analysis Batch: 22207

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 22175

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	58.9		ug/L		99	85 - 115	0	20
Ethene (1C)			60.4	60.5		ug/L		100	83 - 115	2	20
Methane (1C)			59.4	63.4		ug/L		107	85 - 115	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*100*		*28 - 140*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-25374/1-A
Matrix: Water
Analysis Batch: 25771

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25374

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		07/22/20 23:56	07/23/20 21:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*62*		*46 - 136*	*07/22/20 23:56*	*07/23/20 21:35*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*62*		*46 - 136*	*07/22/20 23:56*	*07/23/20 21:35*	*1*

Lab Sample ID: LCS 410-25374/2-A
Matrix: Water
Analysis Batch: 25771

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25374

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.221	*H	ug/L		172	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*63*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*61*		*46 - 136*

Lab Sample ID: LCSD 410-25374/3-A
Matrix: Water
Analysis Batch: 25771

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 25374

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.214	*H	ug/L		167	60 - 140	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*59*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*58*		*46 - 136*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: MB 410-31854/1-A
Matrix: Water
Analysis Batch: 32084

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 31854

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		08/11/20 12:00	08/11/20 22:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*60*		*46 - 136*	*08/11/20 12:00*	*08/11/20 22:14*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*59*		*46 - 136*	*08/11/20 12:00*	*08/11/20 22:14*	*1*

Lab Sample ID: LCS 410-31854/2-A
Matrix: Water
Analysis Batch: 32084

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31854

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.171		ug/L		133	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*58*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*57*		*46 - 136*

Lab Sample ID: LCSD 410-31854/3-A
Matrix: Water
Analysis Batch: 32084

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 31854

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.176		ug/L		138	60 - 140	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*51*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*58*		*46 - 136*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 410-21373/1-A
Matrix: Solid
Analysis Batch: 22762

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21373

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		12	5.0	mg/Kg		07/10/20 16:20	07/14/20 14:45	1
>C22-C44 (1C)	ND		12	5.0	mg/Kg		07/10/20 16:20	07/14/20 14:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o- terphenyl (Surr) (1C)	*92*		*42 - 143*	*07/10/20 16:20*	*07/14/20 14:45*	*1*
Chlorobenzene (Surr) (1C)	*73*		*54 - 137*	*07/10/20 16:20*	*07/14/20 14:45*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: LCS 410-21373/2-A
Matrix: Solid
Analysis Batch: 22762

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21373

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
DRO (C10-C28) (1C)			133	103		mg/Kg		77	76 - 117		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o- terphenyl (Surr) (1C)	*101*		*42 - 143*
Chlorobenzene (Surr) (1C)	*76*		*54 - 137*

Lab Sample ID: MB 410-21706/1-A
Matrix: Water
Analysis Batch: 22762

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21706

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		0.10	0.037	mg/L		07/13/20 09:12	07/14/20 12:20	1
>C22-C44 (1C)	ND		0.10	0.037	mg/L		07/13/20 09:12	07/14/20 12:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o- terphenyl (Surr) (1C)	*83*		*51 - 126*	*07/13/20 09:12*	*07/14/20 12:20*	*1*
Chlorobenzene (Surr) (1C)	*64*		*21 - 116*	*07/13/20 09:12*	*07/14/20 12:20*	*1*

Lab Sample ID: LCS 410-21706/2-A
Matrix: Water
Analysis Batch: 22762

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21706

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
DRO (C10-C28) (1C)			0.800	0.534		mg/L		67	48 - 116		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o- terphenyl (Surr) (1C)	*91*		*51 - 126*
Chlorobenzene (Surr) (1C)	*67*		*21 - 116*

Lab Sample ID: LCSD 410-21706/3-A
Matrix: Water
Analysis Batch: 22762

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21706

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (C10-C28) (1C)			0.800	0.501		mg/L		63	48 - 116	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o- terphenyl (Surr) (1C)	*89*		*51 - 126*
Chlorobenzene (Surr) (1C)	*61*		*21 - 116*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 460-710128/3
Matrix: Water
Analysis Batch: 710128

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.12	0.014	mg/L			07/21/20 09:17	1
Sulfate	ND		0.60	0.35	mg/L			07/21/20 09:17	1

Lab Sample ID: LCS 460-710128/5
Matrix: Water
Analysis Batch: 710128

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.20	3.15		mg/L		98	90 - 110
Sulfate	4.80	4.79		mg/L		100	90 - 110

Lab Sample ID: LCSD 460-710128/6
Matrix: Water
Analysis Batch: 710128

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3.20	3.16		mg/L		99	90 - 110	0	15
Sulfate	4.80	4.81		mg/L		100	90 - 110	0	15

Lab Sample ID: MB 460-710129/3
Matrix: Water
Analysis Batch: 710129

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.10	0.056	mg/L			07/21/20 09:17	1

Lab Sample ID: LCS 460-710129/5
Matrix: Water
Analysis Batch: 710129

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	3.20	3.23		mg/L		101	90 - 110

Lab Sample ID: LCSD 460-710129/6
Matrix: Water
Analysis Batch: 710129

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	3.20	3.23		mg/L		101	90 - 110	0	15

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-21125/1-A
Matrix: Solid
Analysis Batch: 24295

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21125

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5	0.59	mg/Kg		07/10/20 05:52	07/20/20 08:34	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 410-21125/2-A
Matrix: Solid
Analysis Batch: 24295

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21125

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	2.91	3.44		mg/Kg		118	80 - 120

Lab Sample ID: MB 410-21189/1-A
Matrix: Water
Analysis Batch: 22038

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 21189

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.20	0.096	mg/L		07/10/20 08:00	07/13/20 15:34	1
Iron	ND		0.20	0.040	mg/L		07/10/20 08:00	07/13/20 15:34	1
Magnesium	ND		0.10	0.040	mg/L		07/10/20 08:00	07/13/20 15:34	1
Potassium	ND		0.50	0.20	mg/L		07/10/20 08:00	07/13/20 15:34	1
Sodium	0.556	J B	1.0	0.24	mg/L		07/10/20 08:00	07/13/20 15:34	1

Lab Sample ID: LCS 410-21189/2-A
Matrix: Water
Analysis Batch: 22038

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 21189

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	0.400	0.405		mg/L		101	80 - 120
Iron	0.402	0.424		mg/L		105	80 - 120
Magnesium	0.200	0.206		mg/L		103	80 - 120
Potassium	5.60	5.81		mg/L		104	80 - 120
Sodium	2.00	2.23		mg/L		111	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 410-24947/1-A
Matrix: Water
Analysis Batch: 25128

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24947

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		07/22/20 05:02	07/22/20 09:43	1

Lab Sample ID: LCS 410-24947/2-A
Matrix: Water
Analysis Batch: 25128

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24947

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	4.92	4.99		ug/L		101	90 - 115

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 410-21931/41
Matrix: Water
Analysis Batch: 21931

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8.0	8.0	mg/L			07/10/20 22:36	1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCS 410-21931/42
Matrix: Water
Analysis Batch: 21931

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	189	169		mg/L		90	82 - 106

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 410-21289/1
Matrix: Water
Analysis Batch: 21289

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.30	0.10	mg/L			07/10/20 11:17	1

Lab Sample ID: LCS 410-21289/13
Matrix: Water
Analysis Batch: 21289

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	1.00	1.04		mg/L		104	90 - 110
Sulfide as H2S	1.00	1.10		mg/L		110	

Lab Sample ID: 410-7163-2 MS
Matrix: Water
Analysis Batch: 21289

Client Sample ID: CD-13A-W-39.0-20200709
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	ND	FL	0.543	0.311	FL	mg/L		57	90 - 110
Sulfide as H2S	ND		0.543	0.329		mg/L		61	

Lab Sample ID: 410-7163-2 MSD
Matrix: Water
Analysis Batch: 21289

Client Sample ID: CD-13A-W-39.0-20200709
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfide	ND	FL	0.543	0.283	J FL	mg/L		52	90 - 110	9	29
Sulfide as H2S	ND		0.543	0.300		mg/L		55		9	

Lab Sample ID: 410-7163-2 DU
Matrix: Water
Analysis Batch: 21289

Client Sample ID: CD-13A-W-39.0-20200709
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfide	ND	FL	ND		mg/L		NC	5

Method: SM4500 NH3 - Ammonia

Lab Sample ID: MB 410-25143/1-A
Matrix: Water
Analysis Batch: 25223

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25143

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia-N	ND		0.75	0.25	mg/L		07/22/20 11:50	07/22/20 15:08	1

Method: SM4500 NH3 - Ammonia

Lab Sample ID: LCS 410-25143/2-A
Matrix: Water
Analysis Batch: 25223

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25143

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia-N	500	475		mg/L		95	93 - 100

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-7163-1

GC/MS VOA

Prep Batch: 21565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7163-1	CD-13A-S-39.0-20200709	Total/NA	Solid	5035	

Analysis Batch: 23070

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7163-2	CD-13A-W-39.0-20200709	Total/NA	Water	8260C/UST	
410-7163-3	TB-20200709	Total/NA	Water	8260C/UST	
MB 410-23070/5	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-23070/8	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-23070/9	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

Analysis Batch: 25505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7163-1	CD-13A-S-39.0-20200709	Total/NA	Solid	8260C	21565
MB 410-25505/9	Method Blank	Total/NA	Solid	8260C	
LCS 410-25505/5	Lab Control Sample	Total/NA	Solid	8260C	
LCS 410-25505/7	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 410-25505/6	Lab Control Sample Dup	Total/NA	Solid	8260C	
LCSD 410-25505/8	Lab Control Sample Dup	Total/NA	Solid	8260C	

GC/MS Semi VOA

Prep Batch: 21966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7163-1	CD-13A-S-39.0-20200709	Total/NA	Solid	3546	
MB 410-21966/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-21966/2-A	Lab Control Sample	Total/NA	Solid	3546	

Prep Batch: 21997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7163-2	CD-13A-W-39.0-20200709	Total/NA	Water	3510C	
MB 410-21997/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-21997/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 22189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-21966/1-A	Method Blank	Total/NA	Solid	8270D	21966
LCS 410-21966/2-A	Lab Control Sample	Total/NA	Solid	8270D	21966

Analysis Batch: 22199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7163-2	CD-13A-W-39.0-20200709	Total/NA	Water	8270D	21997
MB 410-21997/1-A	Method Blank	Total/NA	Water	8270D	21997
LCS 410-21997/2-A	Lab Control Sample	Total/NA	Water	8270D	21997

Analysis Batch: 22650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7163-1	CD-13A-S-39.0-20200709	Total/NA	Solid	8270D	21966

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-7163-1

GC VOA

Prep Batch: 21864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7163-2	CD-13A-W-39.0-20200709	Total/NA	Water	RSK-175	
MB 410-21864/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-21864/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-21864/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 21876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7163-2	CD-13A-W-39.0-20200709	Total/NA	Water	RSK-175	21864
MB 410-21864/1-A	Method Blank	Total/NA	Water	RSK-175	21864
LCS 410-21864/2-A	Lab Control Sample	Total/NA	Water	RSK-175	21864
LCSD 410-21864/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	21864

Prep Batch: 22175

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7163-2 - DL	CD-13A-W-39.0-20200709	Total/NA	Water	RSK-175	
MB 410-22175/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-22175/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-22175/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 22207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7163-2 - DL	CD-13A-W-39.0-20200709	Total/NA	Water	RSK-175	22175
MB 410-22175/1-A	Method Blank	Total/NA	Water	RSK-175	22175
LCS 410-22175/2-A	Lab Control Sample	Total/NA	Water	RSK-175	22175
LCSD 410-22175/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	22175

GC Semi VOA

Prep Batch: 21373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7163-1	CD-13A-S-39.0-20200709	Total/NA	Solid	3546	
MB 410-21373/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-21373/2-A	Lab Control Sample	Total/NA	Solid	3546	

Prep Batch: 21706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7163-2	CD-13A-W-39.0-20200709	Total/NA	Water	3510C	
MB 410-21706/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-21706/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-21706/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 22762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7163-1	CD-13A-S-39.0-20200709	Total/NA	Solid	8015C	21373
410-7163-2	CD-13A-W-39.0-20200709	Total/NA	Water	8015C	21706
MB 410-21373/1-A	Method Blank	Total/NA	Solid	8015C	21373
MB 410-21706/1-A	Method Blank	Total/NA	Water	8015C	21706
LCS 410-21373/2-A	Lab Control Sample	Total/NA	Solid	8015C	21373
LCS 410-21706/2-A	Lab Control Sample	Total/NA	Water	8015C	21706
LCSD 410-21706/3-A	Lab Control Sample Dup	Total/NA	Water	8015C	21706

GC Semi VOA

Prep Batch: 25374

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7163-2	CD-13A-W-39.0-20200709	Total/NA	Water	8011	
MB 410-25374/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-25374/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-25374/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 25771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7163-2	CD-13A-W-39.0-20200709	Total/NA	Water	8011	25374
MB 410-25374/1-A	Method Blank	Total/NA	Water	8011	25374
LCS 410-25374/2-A	Lab Control Sample	Total/NA	Water	8011	25374
LCSD 410-25374/3-A	Lab Control Sample Dup	Total/NA	Water	8011	25374

Analysis Batch: 28450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7163-1	CD-13A-S-39.0-20200709	Total/NA	Solid	Total TPH	
410-7163-2	CD-13A-W-39.0-20200709	Total/NA	Water	Total TPH	

Prep Batch: 31854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7163-3	TB-20200709	Total/NA	Water	8011	
MB 410-31854/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-31854/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-31854/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 32084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7163-3	TB-20200709	Total/NA	Water	8011	31854
MB 410-31854/1-A	Method Blank	Total/NA	Water	8011	31854
LCS 410-31854/2-A	Lab Control Sample	Total/NA	Water	8011	31854
LCSD 410-31854/3-A	Lab Control Sample Dup	Total/NA	Water	8011	31854

HPLC/IC

Analysis Batch: 710128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7163-2	CD-13A-W-39.0-20200709	Total/NA	Water	300.0	
MB 460-710128/3	Method Blank	Total/NA	Water	300.0	
LCS 460-710128/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 460-710128/6	Lab Control Sample Dup	Total/NA	Water	300.0	

Analysis Batch: 710129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7163-2	CD-13A-W-39.0-20200709	Total/NA	Water	300.0	
MB 460-710129/3	Method Blank	Total/NA	Water	300.0	
LCS 460-710129/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 460-710129/6	Lab Control Sample Dup	Total/NA	Water	300.0	

Metals

Prep Batch: 21125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7163-1	CD-13A-S-39.0-20200709	Total/NA	Solid	3050B	

Metals (Continued)

Prep Batch: 21125 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-21125/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 410-21125/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Prep Batch: 21189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7163-2	CD-13A-W-39.0-20200709	Total Recoverable	Water	3005A	
MB 410-21189/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-21189/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 22038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7163-2	CD-13A-W-39.0-20200709	Total Recoverable	Water	6010C	21189
MB 410-21189/1-A	Method Blank	Total Recoverable	Water	6010C	21189
LCS 410-21189/2-A	Lab Control Sample	Total Recoverable	Water	6010C	21189

Analysis Batch: 24295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7163-1	CD-13A-S-39.0-20200709	Total/NA	Solid	6010C	21125
MB 410-21125/1-A	Method Blank	Total/NA	Solid	6010C	21125
LCS 410-21125/2-A	Lab Control Sample	Total/NA	Solid	6010C	21125

Filtration Batch: 24694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7163-2	CD-13A-W-39.0-20200709	Dissolved	Water	Filtration	

Prep Batch: 24947

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7163-2	CD-13A-W-39.0-20200709	Dissolved	Water	Non-Digest Prep	24694
MB 410-24947/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-24947/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	

Analysis Batch: 25128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7163-2	CD-13A-W-39.0-20200709	Dissolved	Water	6020A	24947
MB 410-24947/1-A	Method Blank	Total/NA	Water	6020A	24947
LCS 410-24947/2-A	Lab Control Sample	Total/NA	Water	6020A	24947

General Chemistry

Analysis Batch: 21061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7163-1	CD-13A-S-39.0-20200709	Total/NA	Solid	Moisture	

Analysis Batch: 21289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7163-2	CD-13A-W-39.0-20200709	Total/NA	Water	SM 4500 S2 D	
MB 410-21289/1	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 410-21289/13	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
410-7163-2 MS	CD-13A-W-39.0-20200709	Total/NA	Water	SM 4500 S2 D	
410-7163-2 MSD	CD-13A-W-39.0-20200709	Total/NA	Water	SM 4500 S2 D	
410-7163-2 DU	CD-13A-W-39.0-20200709	Total/NA	Water	SM 4500 S2 D	

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-7163-1

General Chemistry

Analysis Batch: 21931

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7163-2	CD-13A-W-39.0-20200709	Total/NA	Water	SM 2320B	
MB 410-21931/41	Method Blank	Total/NA	Water	SM 2320B	
LCS 410-21931/42	Lab Control Sample	Total/NA	Water	SM 2320B	

Prep Batch: 25143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7163-2	CD-13A-W-39.0-20200709	Total/NA	Water	SM 4500 NH3 B	
MB 410-25143/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 B	
LCS 410-25143/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 B	

Analysis Batch: 25223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7163-2	CD-13A-W-39.0-20200709	Total/NA	Water	SM4500 NH3	25143
MB 410-25143/1-A	Method Blank	Total/NA	Water	SM4500 NH3	25143
LCS 410-25143/2-A	Lab Control Sample	Total/NA	Water	SM4500 NH3	25143

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-7163-1

Client Sample ID: CD-13A-S-39.0-20200709

Lab Sample ID: 410-7163-1
Matrix: Solid
Date Collected: 07/09/20 09:00
Date Received: 07/09/20 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	21061	07/09/20 20:43	PTG7	ELLE

Client Sample ID: CD-13A-S-39.0-20200709

Lab Sample ID: 410-7163-1
Matrix: Solid
Date Collected: 07/09/20 09:00
Date Received: 07/09/20 16:15
Percent Solids: 85.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			21565	07/11/20 19:00	UK3O	ELLE
Total/NA	Analysis	8260C		1	25505	07/23/20 14:24	Z6JB	ELLE
Total/NA	Prep	3546			21966	07/13/20 16:34	DN9W	ELLE
Total/NA	Analysis	8270D		1	22650	07/15/20 20:30	W6XI	ELLE
Total/NA	Prep	3546			21373	07/10/20 16:20	DN9W	ELLE
Total/NA	Analysis	8015C		1	22762	07/14/20 17:56	YHQ2	ELLE
Total/NA	Analysis	Total TPH		1	28450	07/31/20 09:17	KP5X	ELLE
Total/NA	Prep	3050B			21125	07/10/20 05:52	UAMX	ELLE
Total/NA	Analysis	6010C		1	24295	07/20/20 09:38	ULJC	ELLE

Client Sample ID: CD-13A-W-39.0-20200709

Lab Sample ID: 410-7163-2
Matrix: Water
Date Collected: 07/09/20 11:30
Date Received: 07/09/20 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	23070	07/16/20 12:09	TK5O	ELLE
Total/NA	Prep	3510C			21997	07/13/20 18:03	OT54	ELLE
Total/NA	Analysis	8270D		1	22199	07/14/20 21:19	UWHS	ELLE
Total/NA	Prep	RSK-175	DL		22175	07/14/20 08:39	IYN5	ELLE
Total/NA	Analysis	RSK-175	DL	100	22207	07/14/20 13:33	IYN5	ELLE
Total/NA	Prep	RSK-175			21864	07/13/20 10:50	IYN5	ELLE
Total/NA	Analysis	RSK-175		1	21876	07/13/20 17:02	IYN5	ELLE
Total/NA	Prep	8011			25374	07/22/20 23:56	K2IL	ELLE
Total/NA	Analysis	8011		1	25771	07/24/20 00:06	AC3T	ELLE
Total/NA	Prep	3510C			21706	07/13/20 09:12	I5BW	ELLE
Total/NA	Analysis	8015C		1	22762	07/14/20 13:24	YHQ2	ELLE
Total/NA	Analysis	Total TPH		1	28450	07/31/20 09:17	KP5X	ELLE
Total/NA	Analysis	300.0		1	710128	07/21/20 10:53	VMI	TAL EDI
Total/NA	Analysis	300.0		1	710129	07/21/20 10:53	VMI	TAL EDI
Total Recoverable	Prep	3005A			21189	07/10/20 08:00	UAMX	ELLE
Total Recoverable	Analysis	6010C		1	22038	07/13/20 16:35	UCIG	ELLE
Dissolved	Filtration	Filtration			24694	07/21/20 10:48	UJL8	ELLE
Dissolved	Prep	Non-Digest Prep			24947	07/22/20 05:02	UJL8	ELLE
Dissolved	Analysis	6020A		1	25128	07/22/20 10:03	UPJE	ELLE
Total/NA	Analysis	SM 2320B		1	21931	07/10/20 23:23	JB	ELLE
Total/NA	Analysis	SM 4500 S2 D		1	21289	07/10/20 11:17	P8DZ	ELLE

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-7163-1

Client Sample ID: CD-13A-W-39.0-20200709

Lab Sample ID: 410-7163-2

Date Collected: 07/09/20 11:30

Matrix: Water

Date Received: 07/09/20 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SM 4500 NH3 B			25143	07/22/20 11:50	P8DZ	ELLE
Total/NA	Analysis	SM4500 NH3		1	25223	07/22/20 15:08	P8DZ	ELLE

Client Sample ID: TB-20200709

Lab Sample ID: 410-7163-3

Date Collected: 07/09/20 00:00

Matrix: Water

Date Received: 07/09/20 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	23070	07/16/20 11:21	TK5O	ELLE
Total/NA	Prep	8011			31854	08/11/20 12:00	GC5R	ELLE
Total/NA	Analysis	8011		1	32084	08/11/20 23:05	AC3T	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Job ID: 410-7163-1
Project/Site: PHL Penrose Drilling Sample

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015C	3510C	Water	>C12-C22 (1C)
8015C	3510C	Water	>C22-C44 (1C)
8015C	3546	Solid	>C12-C22 (1C)
8015C	3546	Solid	>C22-C44 (1C)
Moisture		Solid	Percent Moisture
Total TPH		Solid	Total Reported TPH
Total TPH		Water	Total Reported TPH

Laboratory: Eurofins TestAmerica, Edison

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	68-00522	09-30-20

Method Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-7163-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
8260C/UST	Volatile Organic Compounds (GC/MS)	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
RSK-175	Dissolved Gases (GC)	RSK	ELLE
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	ELLE
Total TPH	Total TPH	None	ELLE
300.0	Anions, Ion Chromatography	MCAWW	TAL EDI
6010C	Metals (ICP)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
Moisture	Percent Moisture	EPA	ELLE
SM 2320B	Alkalinity	SM	ELLE
SM 4500 S2 D	Sulfide, Total	SM	ELLE
SM4500 NH3	Ammonia	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
3050B	Preparation, Metals	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
3546	Microwave Extraction	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
5035	Closed System Purge and Trap	SW846	ELLE
8011	Microextraction	SW846	ELLE
Filtration	Sample Filtration	None	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE
SM 4500 NH3 B	Distillation, Ammonia	SM	ELLE

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-7163-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-7163-1	CD-13A-S-39.0-20200709	Solid	07/09/20 09:00	07/09/20 16:15	
410-7163-2	CD-13A-W-39.0-20200709	Water	07/09/20 11:30	07/09/20 16:15	
410-7163-3	TB-20200709	Water	07/09/20 00:00	07/09/20 16:15	

Environmental Analysis ... f Custody

eurofins | Lancaster Laboratories Environmental

Acct. # ___ 410-7163 Chain of Custody

...vironmental use only

___

COC # 608752

Client Information

Client: Evergreen c/o Stantec	Acct. #: 16657
Project Name/#: PHL Penrose Drilling Sampling	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 213402602
Sampler: Dane Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Soil ☒ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: trip blank

Analysis Requested — Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil ☒ Sediment	Water	Other	Total # of Containers	Custom TPH w/ Ranges	TPH-GRO 8260/moisture (H/O)	Metal 6010/Lead (dissolved 6020 total 6010B) (N)	Sulfide (O)	Chloride, Nitrate Nitrogen, Sulfate	Volatile Headspace Hydrocarbons (H)	Total Alkalinity to 4.5	Ammonia Nitrogen (S)	*Short List VOCs 8260 including TBA 8260 + EDB8011 (H/O)	*Short list SVOCs 8270	Remarks
CD-13A-S-39.0-20200709	7/9/20	0900	X		X			6	X	X	(X)						X	X	(X) = dissolved lead 6020 only
CD-13A-W-39.0'-20200709	7/9/20	1130	X			X		17	X	X	X	X	X	X	X	X	X	X	
TB-20200709	6/12/20	—					X										X		

For Lab Use Only
FSC: ___
SCR#: ___

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks
*Refer to Evergreen Petroleum Short List for list of analytes

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: ___

E-mail address: Andrew.Klingbeil@stantec.com

Relinquished by	Date	Time	Received by	Date	Time
[signature]	7/9/20	1237	[signature]	7/9/20	1237
[signature]	7/9/20	1520	[signature]	7-9-20	1615

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

EDD Required? Yes No
If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:
UPS ___ FedEx ___ Other ___

Temperature upon receipt 3.4 °C

lwm

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Carter, Amek A	Carrier Tracking No(s):	COC No: 410-91287.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: amekcarter@eurofinsus.com	State of Origin: Pennsylvania	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Pennsylvania		Job #: 410-7163-1
Address: 777 New Durham Road, ,	Due Date Requested: 7/21/2020			
City: Edison	TAT Requested (days):			
State, Zip: NJ, 08817				
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	PO #:			
Email:	WO #:			
Project Name: PHL Penrose Drilling Sample	Project #: 41002220			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D/ (MOD) Local Method	300_ORGFMS	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
CD-13A-W-39.0-20200709 (410-7163-2)	7/9/20	11:30 Eastern		Water			X	X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Lancaster Laboratories Env places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Lancaster Laboratories Env laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Lancaster Laboratories Env attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Lancaster Laboratories Env.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	7-15-2020 1163	ELLE	[signature]	15 Jul 20 1330	ELLE
[signature]	15 Jul 20 1910	ELLE	[signature]	7/15/20 1910	TAEDI

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
		R11 1.9° C

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Stantec Consulting Corp. Job Number: 410-7163-1

Login Number: 7163 **List Source: Eurofins Lancaster Laboratories Env**
List Number: 1
Creator: Mathers, William

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	True	

Login Sample Receipt Checklist

Client: Stantec Consulting Corp. Job Number: 410-7163-1

Login Number: 7163
List Number: 2
Creator: Armbruster, Chris

List Source: Eurofins TestAmerica, Edison
List Creation: 07/17/20 12:25 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.9°C IR11
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-7329-1
Client Project/Site: PHL Penrose Drilling Sampling
Revision: 1

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Andrew Klingbeil

Authorized for release by:
11/5/2020 5:15:09 PM

Amek Carter, Project Manager
(717)556-7252
amekcarter@eurofinsus.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
11/5/2020 5:15:09 PM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 6
Client Sample Results 7
Surrogate Summary 9
QC Sample Results 10
QC Association Summary 14
Lab Chronicle 16
Certification Summary 17
Method Summary 18
Sample Summary 19
Chain of Custody 20
Receipt Checklists 21

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-7329-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-7329-1

Job ID: 410-7329-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-7329-1

Revision
The report being provided is a revision of the original report sent on 8/21/2020. The report (revision 1) is being revised due to: Analyte List Change - Added TBA.

Receipt
The sample was received on 7/10/2020 5:05 PM; the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.8º C.

GC/MS VOA
Method 8260C: The continuing calibration verification (CCV) associated with batch 410-24739 recovered outside acceptance criteria, low biased, for Naphthalene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-7329-1

Client Sample ID: CD-13A-S-50.0-20200709

Lab Sample ID: 410-7329-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	2.4	J	5.2	0.42	ug/Kg	1	☼	8260C	Total/NA
1,3,5-Trimethylbenzene	0.97	J	5.2	0.52	ug/Kg	1	☼	8260C	Total/NA
Toluene	7.4		5.2	0.63	ug/Kg	1	☼	8260C	Total/NA
Isopropylbenzene	3.4	J	5.2	0.42	ug/Kg	1	☼	8260C	Total/NA
C4-C12-TPH-GRO	890		110	46	ug/Kg	1	☼	8260C	Total/NA
Xylenes, Total	5.3	J	10	1.5	ug/Kg	1	☼	8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CD-13A-S-50.0-20200709

Date Collected: 07/09/20 16:30
Date Received: 07/10/20 17:05

Lab Sample ID: 410-7329-1

Matrix: Solid
Percent Solids: 90.7

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**2.4**	**J**	5.2	0.42	ug/Kg	☼	07/11/20 19:00	07/23/20 15:11	1
1,3,5-Trimethylbenzene	**0.97**	**J**	5.2	0.52	ug/Kg	☼	07/11/20 19:00	07/23/20 15:11	1
Toluene	**7.4**		5.2	0.63	ug/Kg	☼	07/11/20 19:00	07/23/20 15:11	1
Methyl tertiary butyl ether	ND		5.2	0.52	ug/Kg	☼	07/11/20 19:00	07/23/20 15:11	1
Benzene	ND		5.2	0.52	ug/Kg	☼	07/11/20 19:00	07/23/20 15:11	1
Naphthalene	ND		5.2	2.1	ug/Kg	☼	07/11/20 19:00	07/23/20 15:11	1
1,2,4-Trimethylbenzene	ND		5.2	0.52	ug/Kg	☼	07/11/20 19:00	07/23/20 15:11	1
Isopropylbenzene	**3.4**	**J**	5.2	0.42	ug/Kg	☼	07/11/20 19:00	07/23/20 15:11	1
1,2-Dibromoethane	ND		5.2	0.42	ug/Kg	☼	07/11/20 19:00	07/23/20 15:11	1
1,2-Dichloroethane	ND		5.2	0.63	ug/Kg	☼	07/11/20 19:00	07/23/20 15:11	1
C4-C12-TPH-GRO	**890**		110	46	ug/Kg	☼	07/11/20 19:00	07/23/20 15:11	1
Xylenes, Total	**5.3**	**J**	10	1.5	ug/Kg	☼	07/11/20 19:00	07/23/20 15:11	1
t-Butyl alcohol	ND		100	16	ug/Kg	☼	07/11/20 19:00	07/23/20 15:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*54 - 135*	*07/11/20 19:00*	*07/23/20 15:11*	*1*
4-Bromofluorobenzene (Surr)	*97*		*50 - 131*	*07/11/20 19:00*	*07/23/20 15:11*	*1*
Dibromofluoromethane (Surr)	*99*		*50 - 141*	*07/11/20 19:00*	*07/23/20 15:11*	*1*
Toluene-d8 (Surr)	*102*		*52 - 141*	*07/11/20 19:00*	*07/23/20 15:11*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		18	3.7	ug/Kg	☼	07/17/20 18:50	07/19/20 15:53	1
Benzo[a]anthracene	ND		18	7.3	ug/Kg	☼	07/17/20 18:50	07/19/20 15:53	1
Benzo[a]pyrene	ND		18	3.7	ug/Kg	☼	07/17/20 18:50	07/19/20 15:53	1
Benzo[b]fluoranthene	ND		18	3.7	ug/Kg	☼	07/17/20 18:50	07/19/20 15:53	1
Benzo[g,h,i]perylene	ND		18	3.7	ug/Kg	☼	07/17/20 18:50	07/19/20 15:53	1
Chrysene	ND		18	3.7	ug/Kg	☼	07/17/20 18:50	07/19/20 15:53	1
Fluorene	ND		18	3.7	ug/Kg	☼	07/17/20 18:50	07/19/20 15:53	1
Naphthalene	ND		18	7.3	ug/Kg	☼	07/17/20 18:50	07/19/20 15:53	1
Phenanthrene	ND		18	3.7	ug/Kg	☼	07/17/20 18:50	07/19/20 15:53	1
Pyrene	ND		18	3.7	ug/Kg	☼	07/17/20 18:50	07/19/20 15:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*83*		*34 - 117*	*07/17/20 18:50*	*07/19/20 15:53*	*1*
Nitrobenzene-d5 (Surr)	*79*		*23 - 115*	*07/17/20 18:50*	*07/19/20 15:53*	*1*
p-Terphenyl-d14 (Surr)	*103*		*35 - 135*	*07/17/20 18:50*	*07/19/20 15:53*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		13	5.5	mg/Kg	☼	07/14/20 08:40	07/16/20 20:28	1
>C22-C44 (1C)	ND		13	5.5	mg/Kg	☼	07/14/20 08:40	07/16/20 20:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o- terphenyl (Surr) (1C)	*95*		*42 - 143*	*07/14/20 08:40*	*07/16/20 20:28*	*1*
Chlorobenzene (Surr) (1C)	*64*		*54 - 137*	*07/14/20 08:40*	*07/16/20 20:28*	*1*

Method: Total TPH - Total TPH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Reported TPH	ND		0.22	0.082	mg/Kg	☼		07/31/20 09:17	1

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-7329-1

Client Sample ID: CD-13A-S-50.0-20200709
Date Collected: 07/09/20 16:30
Date Received: 07/10/20 17:05

Lab Sample ID: 410-7329-1
Matrix: Solid
Percent Solids: 90.7

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.3	0.54	mg/Kg	☼	07/13/20 05:18	07/13/20 18:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.3		1.0	1.0	%			07/11/20 14:08	1

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-7329-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(54-135)	(50-131)	(50-141)	(52-141)
410-7329-1	CD-13A-S-50.0-20200709	105	97	99	102
LCS 410-25505/5	Lab Control Sample	101	99	100	103
LCS 410-25505/7	Lab Control Sample	100	98	99	102
LCSD 410-25505/6	Lab Control Sample Dup	98	98	100	103
LCSD 410-25505/8	Lab Control Sample Dup	99	96	98	103
MB 410-25505/9	Method Blank	101	95	100	102

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(34-117)	(23-115)	(35-135)
410-7329-1	CD-13A-S-50.0-20200709	83	79	103
LCS 410-23764/2-A	Lab Control Sample	86	81	97
MB 410-23764/1-A	Method Blank	87	80	108

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		OTP1	CBNZ1
Lab Sample ID	Client Sample ID	(42-143)	(54-137)
410-7329-1	CD-13A-S-50.0-20200709	95	64
LCS 410-22140/2-A	Lab Control Sample	109	78
MB 410-22140/1-A	Method Blank	99	79

Surrogate Legend

OTP = o- terphenyl (Surr)
CBNZ = Chlorobenzene (Surr)

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-7329-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-25505/9
Matrix: Solid
Analysis Batch: 25505

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		5.0	0.40	ug/Kg			07/23/20 11:51	1
1,3,5-Trimethylbenzene	ND		5.0	0.50	ug/Kg			07/23/20 11:51	1
Toluene	ND		5.0	0.60	ug/Kg			07/23/20 11:51	1
Methyl tertiary butyl ether	ND		5.0	0.50	ug/Kg			07/23/20 11:51	1
Benzene	ND		5.0	0.50	ug/Kg			07/23/20 11:51	1
Naphthalene	ND		5.0	2.0	ug/Kg			07/23/20 11:51	1
1,2,4-Trimethylbenzene	ND		5.0	0.50	ug/Kg			07/23/20 11:51	1
Isopropylbenzene	ND		5.0	0.40	ug/Kg			07/23/20 11:51	1
1,2-Dibromoethane	ND		5.0	0.40	ug/Kg			07/23/20 11:51	1
1,2-Dichloroethane	ND		5.0	0.60	ug/Kg			07/23/20 11:51	1
C4-C12-TPH-GRO	ND		110	44	ug/Kg			07/23/20 11:51	1
Xylenes, Total	ND		10	1.4	ug/Kg			07/23/20 11:51	1
t-Butyl alcohol	ND		100	15	ug/Kg			07/23/20 11:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*54 - 135*		*07/23/20 11:51*	*1*
4-Bromofluorobenzene (Surr)	*95*		*50 - 131*		*07/23/20 11:51*	*1*
Dibromofluoromethane (Surr)	*100*		*50 - 141*		*07/23/20 11:51*	*1*
Toluene-d8 (Surr)	*102*		*52 - 141*		*07/23/20 11:51*	*1*

Lab Sample ID: LCS 410-25505/5
Matrix: Solid
Analysis Batch: 25505

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylbenzene			20.0	20.6		ug/Kg		103	78 - 120		
1,3,5-Trimethylbenzene			20.0	21.0		ug/Kg		105	73 - 120		
Toluene			20.0	21.5		ug/Kg		107	80 - 120		
Methyl tertiary butyl ether			20.0	18.6		ug/Kg		93	72 - 120		
Benzene			20.0	21.1		ug/Kg		106	80 - 120		
Naphthalene			20.0	19.0		ug/Kg		95	48 - 130		
1,2,4-Trimethylbenzene			20.0	21.0		ug/Kg		105	73 - 120		
Isopropylbenzene			20.0	21.1		ug/Kg		105	77 - 120		
1,2-Dibromoethane			20.0	20.8		ug/Kg		104	76 - 120		
1,2-Dichloroethane			20.0	20.7		ug/Kg		104	71 - 128		
Xylenes, Total			60.0	65.2		ug/Kg		109	75 - 120		
t-Butyl alcohol			200	221		ug/Kg		111	74 - 121		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*54 - 135*
4-Bromofluorobenzene (Surr)	*99*		*50 - 131*
Dibromofluoromethane (Surr)	*100*		*50 - 141*
Toluene-d8 (Surr)	*103*		*52 - 141*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-25505/7
Matrix: Solid
Analysis Batch: 25505

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C4-C12-TPH-GRO			1000	1030		ug/Kg		103	75 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*54 - 135*
4-Bromofluorobenzene (Surr)	*98*		*50 - 131*
Dibromofluoromethane (Surr)	*99*		*50 - 141*
Toluene-d8 (Surr)	*102*		*52 - 141*

Lab Sample ID: LCSD 410-25505/6
Matrix: Solid
Analysis Batch: 25505

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene			20.0	20.7		ug/Kg		104	78 - 120	1	30
1,3,5-Trimethylbenzene			20.0	21.1		ug/Kg		105	73 - 120	1	30
Toluene			20.0	21.4		ug/Kg		107	80 - 120	0	30
Methyl tertiary butyl ether			20.0	18.2		ug/Kg		91	72 - 120	2	30
Benzene			20.0	21.3		ug/Kg		106	80 - 120	1	30
Naphthalene			20.0	18.1		ug/Kg		90	48 - 130	5	30
1,2,4-Trimethylbenzene			20.0	21.1		ug/Kg		105	73 - 120	0	30
Isopropylbenzene			20.0	21.0		ug/Kg		105	77 - 120	0	30
1,2-Dibromoethane			20.0	20.2		ug/Kg		101	76 - 120	3	30
1,2-Dichloroethane			20.0	20.4		ug/Kg		102	71 - 128	2	30
Xylenes, Total			60.0	64.7		ug/Kg		108	75 - 120	1	30
t-Butyl alcohol			200	225		ug/Kg		113	74 - 121	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*54 - 135*
4-Bromofluorobenzene (Surr)	*98*		*50 - 131*
Dibromofluoromethane (Surr)	*100*		*50 - 141*
Toluene-d8 (Surr)	*103*		*52 - 141*

Lab Sample ID: LCSD 410-25505/8
Matrix: Solid
Analysis Batch: 25505

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C4-C12-TPH-GRO			1000	1000		ug/Kg		100	75 - 120	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*54 - 135*
4-Bromofluorobenzene (Surr)	*96*		*50 - 131*
Dibromofluoromethane (Surr)	*98*		*50 - 141*
Toluene-d8 (Surr)	*103*		*52 - 141*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-23764/1-A
Matrix: Solid
Analysis Batch: 24017

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23764

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		17	3.3	ug/Kg		07/17/20 18:50	07/19/20 12:48	1
Benzo[a]anthracene	ND		17	6.7	ug/Kg		07/17/20 18:50	07/19/20 12:48	1
Benzo[a]pyrene	ND		17	3.3	ug/Kg		07/17/20 18:50	07/19/20 12:48	1
Benzo[b]fluoranthene	ND		17	3.3	ug/Kg		07/17/20 18:50	07/19/20 12:48	1
Benzo[g,h,i]perylene	ND		17	3.3	ug/Kg		07/17/20 18:50	07/19/20 12:48	1
Chrysene	ND		17	3.3	ug/Kg		07/17/20 18:50	07/19/20 12:48	1
Fluorene	ND		17	3.3	ug/Kg		07/17/20 18:50	07/19/20 12:48	1
Naphthalene	ND		17	6.7	ug/Kg		07/17/20 18:50	07/19/20 12:48	1
Phenanthrene	ND		17	3.3	ug/Kg		07/17/20 18:50	07/19/20 12:48	1
Pyrene	ND		17	3.3	ug/Kg		07/17/20 18:50	07/19/20 12:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*87*		*34 - 117*	*07/17/20 18:50*	*07/19/20 12:48*	*1*
Nitrobenzene-d5 (Surr)	*80*		*23 - 115*	*07/17/20 18:50*	*07/19/20 12:48*	*1*
p-Terphenyl-d14 (Surr)	*108*		*35 - 135*	*07/17/20 18:50*	*07/19/20 12:48*	*1*

Lab Sample ID: LCS 410-23764/2-A
Matrix: Solid
Analysis Batch: 24017

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23764

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	1670	1530		ug/Kg		92	67 - 120
Benzo[a]anthracene	1670	1440		ug/Kg		86	68 - 120
Benzo[a]pyrene	1670	1580		ug/Kg		95	68 - 119
Benzo[b]fluoranthene	1670	1630		ug/Kg		98	67 - 125
Benzo[g,h,i]perylene	1670	1570		ug/Kg		94	68 - 125
Chrysene	1670	1330		ug/Kg		80	66 - 111
Fluorene	1670	1480		ug/Kg		89	62 - 110
Naphthalene	1680	1340		ug/Kg		80	49 - 104
Phenanthrene	1670	1500		ug/Kg		90	67 - 116
Pyrene	1680	1420		ug/Kg		85	67 - 109

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*86*		*34 - 117*
Nitrobenzene-d5 (Surr)	*81*		*23 - 115*
p-Terphenyl-d14 (Surr)	*97*		*35 - 135*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 410-22140/1-A
Matrix: Solid
Analysis Batch: 23645

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 22140

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		12	5.0	mg/Kg		07/14/20 08:40	07/16/20 19:45	1
>C22-C44 (1C)	ND		12	5.0	mg/Kg		07/14/20 08:40	07/16/20 19:45	1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: MB 410-22140/1-A
Matrix: Solid
Analysis Batch: 23645

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 22140

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o- terphenyl (Surr) (1C)	*99*		*42 - 143*	*07/14/20 08:40*	*07/16/20 19:45*	*1*
Chlorobenzene (Surr) (1C)	*79*		*54 - 137*	*07/14/20 08:40*	*07/16/20 19:45*	*1*

Lab Sample ID: LCS 410-22140/2-A
Matrix: Solid
Analysis Batch: 23645

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 22140

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
DRO (C10-C28) (1C)			133	106		mg/Kg		79	76 - 117		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o- terphenyl (Surr) (1C)	*109*		*42 - 143*
Chlorobenzene (Surr) (1C)	*78*		*54 - 137*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-21681/1-A
Matrix: Solid
Analysis Batch: 22018

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21681

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5	0.59	mg/Kg		07/13/20 05:18	07/13/20 17:14	1

Lab Sample ID: LCS 410-21681/2-A
Matrix: Solid
Analysis Batch: 22018

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21681

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			2.97	3.18		mg/Kg		107	80 - 120		

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-7329-1

GC/MS VOA

Prep Batch: 21565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7329-1	CD-13A-S-50.0-20200709	Total/NA	Solid	5035	

Analysis Batch: 25505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7329-1	CD-13A-S-50.0-20200709	Total/NA	Solid	8260C	21565
MB 410-25505/9	Method Blank	Total/NA	Solid	8260C	
LCS 410-25505/5	Lab Control Sample	Total/NA	Solid	8260C	
LCS 410-25505/7	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 410-25505/6	Lab Control Sample Dup	Total/NA	Solid	8260C	
LCSD 410-25505/8	Lab Control Sample Dup	Total/NA	Solid	8260C	

GC/MS Semi VOA

Prep Batch: 23764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7329-1	CD-13A-S-50.0-20200709	Total/NA	Solid	3546	
MB 410-23764/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-23764/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 24017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7329-1	CD-13A-S-50.0-20200709	Total/NA	Solid	8270D	23764
MB 410-23764/1-A	Method Blank	Total/NA	Solid	8270D	23764
LCS 410-23764/2-A	Lab Control Sample	Total/NA	Solid	8270D	23764

GC Semi VOA

Prep Batch: 22140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7329-1	CD-13A-S-50.0-20200709	Total/NA	Solid	3546	
MB 410-22140/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-22140/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 23645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7329-1	CD-13A-S-50.0-20200709	Total/NA	Solid	8015C	22140
MB 410-22140/1-A	Method Blank	Total/NA	Solid	8015C	22140
LCS 410-22140/2-A	Lab Control Sample	Total/NA	Solid	8015C	22140

Analysis Batch: 28450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7329-1	CD-13A-S-50.0-20200709	Total/NA	Solid	Total TPH	

Metals

Prep Batch: 21681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7329-1	CD-13A-S-50.0-20200709	Total/NA	Solid	3050B	
MB 410-21681/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 410-21681/2-A	Lab Control Sample	Total/NA	Solid	3050B	

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-7329-1

Metals

Analysis Batch: 22018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7329-1	CD-13A-S-50.0-20200709	Total/NA	Solid	6010C	21681
MB 410-21681/1-A	Method Blank	Total/NA	Solid	6010C	21681
LCS 410-21681/2-A	Lab Control Sample	Total/NA	Solid	6010C	21681

General Chemistry

Analysis Batch: 21535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7329-1	CD-13A-S-50.0-20200709	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-7329-1

Client Sample ID: CD-13A-S-50.0-20200709

Lab Sample ID: 410-7329-1

Date Collected: 07/09/20 16:30

Matrix: Solid

Date Received: 07/10/20 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	21535	07/11/20 14:08	OEL4	ELLE

Client Sample ID: CD-13A-S-50.0-20200709

Lab Sample ID: 410-7329-1

Date Collected: 07/09/20 16:30

Matrix: Solid

Date Received: 07/10/20 17:05

Percent Solids: 90.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			21565	07/11/20 19:00	UK3O	ELLE
Total/NA	Analysis	8260C		1	25505	07/23/20 15:11	Z6JB	ELLE
Total/NA	Prep	3546			23764	07/17/20 18:50	QQ3P	ELLE
Total/NA	Analysis	8270D		1	24017	07/19/20 15:53	SJ89	ELLE
Total/NA	Prep	3546			22140	07/14/20 08:40	R9CT	ELLE
Total/NA	Analysis	8015C		1	23645	07/16/20 20:28	KP5X	ELLE
Total/NA	Analysis	Total TPH		1	28450	07/31/20 09:17	KP5X	ELLE
Total/NA	Prep	3050B			21681	07/13/20 05:18	UAMX	ELLE
Total/NA	Analysis	6010C		1	22018	07/13/20 18:24	UCIG	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp. Job ID: 410-7329-1
Project/Site: PHL Penrose Drilling Sampling

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015C	3546	Solid	>C12-C22 (1C)
8015C	3546	Solid	>C22-C44 (1C)
Moisture		Solid	Percent Moisture
Total TPH		Solid	Total Reported TPH

Method Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-7329-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	ELLE
Total TPH	Total TPH	None	ELLE
6010C	Metals (ICP)	SW846	ELLE
Moisture	Percent Moisture	EPA	ELLE
3050B	Preparation, Metals	SW846	ELLE
3546	Microwave Extraction	SW846	ELLE
5035	Closed System Purge and Trap	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-7329-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-7329-1	CD-13A-S-50.0-20200709	Solid	07/09/20 16:30	07/10/20 17:05	

Environmental Analysis Re[illegible]ustody

eurofins | Lancaster Laboratories Environmental

Acct. # _____

410-7329 Chain of Custody

[illegible] use only

COC #608859

Client Information	
Client: Evergreen c/o Stantec	Acct. #: 16657
Project Name/#: PHL Penrose Drilling Sampling	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 213402602
Sampler: Dane Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Soil ☒ Sediment ☐ Tissue; Water: Potable ☐ Ground ☐ NPDES ☐ Surface; Other: ____

Analysis Requested — Preservation and Filtration Codes

For Lab Use Only: FSC: ____ SCR#: ____

Preservation Codes: H=HCl, T=Thiosulfate, N=HNO_3, B=NaOH, S=H_2SO_4, P=H_3PO_4, F=Field Filtered, O=Other

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil ☒ Sediment	Water	Other:	Total # of Containers	Custom TPH w/ Ranges	TPH-GRO 8260/moisture	Metal 6010/Lead (dissolved 6020 total 6010B)	Sulfide	Chloride, Nitrate Nitrogen, Sulfate	Volatile Headspace Hydrocarbons	Total Alkalinity to 4.5	Ammonia Nitrogen	*Short List VOCs 8260 including TBA 8260+EDB 8011	*Short List SVOCs 8270	Remarks
CD-13A-S-50.0-20200709	7/9/20	1630	X		X				X	X	X						X	X	X = dissolved lead 6020 only

Remarks: * Refer to Evergreen Petroleum Short List for list of analytes

Turnaround Time (TAT) Requested (please circle): Standard (circled) Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: Andrew.Klingbeil@stantec.com

Relinquished by	Date	Time	Received by	Date	Time
Dane	7/10	11:35	Pierre	7/10/20	11:35
Pierre	7/10/20	1655			
			W M Atkins	7/10/20	1705

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) — Type VI (Raw Data Only)

Type III (Reduced non-CLP) — NJ DKQP — TX TRRP-13

NYSDEC Category A or B — MA MCP — CT RCP

EDD Required? Yes (circled) No

If yes, format: EQUIS

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other ____

Temperature upon receipt 0.8 °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT https://www.eurofinsus.com/coc

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0919

WM

Login Sample Receipt Checklist

Client: Stantec Consulting Corp. Job Number: 410-7329-1

Login Number: 7329 **List Source: Eurofins Lancaster Laboratories Env**
List Number: 1
Creator: Mathers, William

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-7618-1
Client Project/Site: PHL Penrose Drilling Sampling

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Andrew Klingbeil

Authorized for release by:
8/19/2020 7:54:25 PM

Amek Carter, Project Manager
(717)556-7252
amekcarter@eurofinsus.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments. QC data that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result. Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
8/19/2020 7:54:25 PM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 6
Client Sample Results 7
Surrogate Summary 9
QC Sample Results 10
QC Association Summary 14
Lab Chronicle 16
Certification Summary 17
Method Summary 18
Sample Summary 19
Chain of Custody 20
Receipt Checklists 21

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-7618-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*3	ISTD response or retention time outside acceptable limits.
^c	CCV Recovery is outside acceptance limits.
XH	Surrogate recovery is above control limits
XL	Surrogate recovery is below control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
XH	Surrogate recovery is above control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-7618-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-7618-1

Receipt
The sample was received on 7/14/2020 4:15 PM; the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.5°C

GC/MS VOA
Method 8260C: The continuing calibration verification (CCV) associated with batch 410-24739 recovered outside acceptance criteria, low biased, for Naphthalene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method 8260C: Internal standard (ISTD) and surrogate standard (SS) response for the following sample was outside control limits: CD-5-S-20.0-20200714 (410-7618-1). The sample(s) was re-extracted and/or re-analyzed and ISTD and SS response was outside control limits.

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-25289 recovered outside acceptance criteria, low biased, for Naphthalene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method 8260C: The following sample CD-5-S-20.0-20200714 (410-7618-1) had matrix interference with an internal standard t-Butyl alcohol-d10, therefore the GRO result is biased low.

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-25289 recovered outside acceptance criteria, low biased, for C4-C12-TPH-GRO.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
Method 8015C_DRO: Chlorobenzene surrogate recovery for the following sample in preparation batch 410-24025 and analytical batch 410-25971 was outside control limits: CD-5-S-20.0-20200714 (410-7618-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-7618-1

Client Sample ID: CD-5-S-20.0-20200714

Lab Sample ID: 410-7618-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	11000		650	52	ug/Kg	100	☼	8260C	Total/NA
Toluene	910		650	78	ug/Kg	100	☼	8260C	Total/NA
Isopropylbenzene	11000		650	52	ug/Kg	100	☼	8260C	Total/NA
Xylenes, Total	42000		1300	180	ug/Kg	100	☼	8260C	Total/NA
1,3,5-Trimethylbenzene - DL	100000		6500	650	ug/Kg	1000	☼	8260C	Total/NA
1,2,4-Trimethylbenzene - DL	190000		6500	650	ug/Kg	1000	☼	8260C	Total/NA
C4-C12-TPH-GRO - DL2	7000000	^c	720000	290000	ug/Kg	5000	☼	8260C	Total/NA
Anthracene	49	J	100	20	ug/Kg	5	☼	8270D	Total/NA
Chrysene	20	J	100	20	ug/Kg	5	☼	8270D	Total/NA
Fluorene	190		100	20	ug/Kg	5	☼	8270D	Total/NA
Naphthalene	6600		100	40	ug/Kg	5	☼	8270D	Total/NA
Phenanthrene	280		100	20	ug/Kg	5	☼	8270D	Total/NA
>C12-C22 (1C)	630		14	6.0	mg/Kg	1	☼	8015C	Total/NA
>C22-C44 (1C)	24		14	6.0	mg/Kg	1	☼	8015C	Total/NA
Total Reported TPH	650		15	6.1	mg/Kg	1	☼	Total TPH	Total/NA
Lead	2.9		1.4	0.56	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CD-5-S-20.0-20200714

Date Collected: 07/14/20 11:30
Date Received: 07/14/20 16:15

Lab Sample ID: 410-7618-1

Matrix: Solid
Percent Solids: 81.7

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**11000**		650	52	ug/Kg	☼	07/15/20 08:20	07/21/20 19:23	100
Toluene	**910**		650	78	ug/Kg	☼	07/15/20 08:20	07/21/20 19:23	100
Methyl tertiary butyl ether	ND		650	65	ug/Kg	☼	07/15/20 08:20	07/21/20 19:23	100
Benzene	ND		650	65	ug/Kg	☼	07/15/20 08:20	07/21/20 19:23	100
Isopropylbenzene	**11000**		650	52	ug/Kg	☼	07/15/20 08:20	07/21/20 19:23	100
1,2-Dibromoethane	ND		650	52	ug/Kg	☼	07/15/20 08:20	07/21/20 19:23	100
1,2-Dichloroethane	ND		650	78	ug/Kg	☼	07/15/20 08:20	07/21/20 19:23	100
t-Butyl alcohol	ND	*3	13000	2000	ug/Kg	☼	07/15/20 08:20	07/21/20 19:23	100
Xylenes, Total	**42000**		1300	180	ug/Kg	☼	07/15/20 08:20	07/21/20 19:23	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*54 - 135*	*07/15/20 08:20*	*07/21/20 19:23*	*100*
4-Bromofluorobenzene (Surr)	*198*	*XH*	*50 - 131*	*07/15/20 08:20*	*07/21/20 19:23*	*100*
Dibromofluoromethane (Surr)	*99*		*50 - 141*	*07/15/20 08:20*	*07/21/20 19:23*	*100*
Toluene-d8 (Surr)	*275*	*XH*	*52 - 141*	*07/15/20 08:20*	*07/21/20 19:23*	*100*

Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	**100000**		6500	650	ug/Kg	☼	07/15/20 08:20	07/23/20 01:23	1000
1,2,4-Trimethylbenzene	**190000**		6500	650	ug/Kg	☼	07/15/20 08:20	07/23/20 01:23	1000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*54 - 135*	*07/15/20 08:20*	*07/23/20 01:23*	*1000*
4-Bromofluorobenzene (Surr)	*181*	*XH ^c*	*50 - 131*	*07/15/20 08:20*	*07/23/20 01:23*	*1000*
Dibromofluoromethane (Surr)	*90*		*50 - 141*	*07/15/20 08:20*	*07/23/20 01:23*	*1000*
Toluene-d8 (Surr)	*232*	*XH*	*52 - 141*	*07/15/20 08:20*	*07/23/20 01:23*	*1000*

Method: 8260C - Volatile Organic Compounds by GC/MS - DL2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C4-C12-TPH-GRO	**7000000**	**^c**	720000	290000	ug/Kg	☼	07/15/20 08:20	07/23/20 01:45	5000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*0*	*XL*	*54 - 135*	*07/15/20 08:20*	*07/23/20 01:45*	*5000*
4-Bromofluorobenzene (Surr)	*195*	*XH ^c*	*50 - 131*	*07/15/20 08:20*	*07/23/20 01:45*	*5000*
Dibromofluoromethane (Surr)	*84*		*50 - 141*	*07/15/20 08:20*	*07/23/20 01:45*	*5000*
Toluene-d8 (Surr)	*250*	*XH*	*52 - 141*	*07/15/20 08:20*	*07/23/20 01:45*	*5000*

Method: 8260C - Volatile Organic Compounds by GC/MS - RA

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*54 - 135*	*07/15/20 08:20*	*07/23/20 01:01*	*100*
4-Bromofluorobenzene (Surr)	*202*	*XH ^c*	*50 - 131*	*07/15/20 08:20*	*07/23/20 01:01*	*100*
Dibromofluoromethane (Surr)	*96*		*50 - 141*	*07/15/20 08:20*	*07/23/20 01:01*	*100*
Toluene-d8 (Surr)	*275*	*XH*	*52 - 141*	*07/15/20 08:20*	*07/23/20 01:01*	*100*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**49**	**J**	100	20	ug/Kg	☼	07/24/20 19:00	07/29/20 14:45	5
Benzo[a]anthracene	ND		100	40	ug/Kg	☼	07/24/20 19:00	07/29/20 14:45	5
Benzo[a]pyrene	ND		100	20	ug/Kg	☼	07/24/20 19:00	07/29/20 14:45	5
Benzo[b]fluoranthene	ND		100	20	ug/Kg	☼	07/24/20 19:00	07/29/20 14:45	5
Benzo[g,h,i]perylene	ND		100	20	ug/Kg	☼	07/24/20 19:00	07/29/20 14:45	5

Client Sample ID: CD-5-S-20.0-20200714

Date Collected: 07/14/20 11:30
Date Received: 07/14/20 16:15

Lab Sample ID: 410-7618-1

Matrix: Solid
Percent Solids: 81.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	20	J	100	20	ug/Kg	☼	07/24/20 19:00	07/29/20 14:45	5
Fluorene	190		100	20	ug/Kg	☼	07/24/20 19:00	07/29/20 14:45	5
Naphthalene	6600		100	40	ug/Kg	☼	07/24/20 19:00	07/29/20 14:45	5
Phenanthrene	280		100	20	ug/Kg	☼	07/24/20 19:00	07/29/20 14:45	5
Pyrene	ND		100	20	ug/Kg	☼	07/24/20 19:00	07/29/20 14:45	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*80*		*34 - 117*	*07/24/20 19:00*	*07/29/20 14:45*	*5*
Nitrobenzene-d5 (Surr)	*102*		*23 - 115*	*07/24/20 19:00*	*07/29/20 14:45*	*5*
p-Terphenyl-d14 (Surr)	*85*		*35 - 135*	*07/24/20 19:00*	*07/29/20 14:45*	*5*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	630		14	6.0	mg/Kg	☼	07/19/20 09:47	07/21/20 14:30	1
>C22-C44 (1C)	24		14	6.0	mg/Kg	☼	07/19/20 09:47	07/21/20 14:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o- terphenyl (Surr) (1C)	*107*		*42 - 143*	*07/19/20 09:47*	*07/21/20 14:30*	*1*
Chlorobenzene (Surr) (1C)	*595*	*XH*	*54 - 137*	*07/19/20 09:47*	*07/21/20 14:30*	*1*

Method: Total TPH - Total TPH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Reported TPH	650		15	6.1	mg/Kg	☼		07/31/20 09:17	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	2.9		1.4	0.56	mg/Kg	☼	07/14/20 10:21	07/16/20 10:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18.3		1.0	1.0	%			07/14/20 20:09	1

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-7618-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(54-135)	(50-131)	(50-141)	(52-141)
410-7618-1	CD-5-S-20.0-20200714	107	198 XH	99	275 XH
410-7618-1 - RA	CD-5-S-20.0-20200714	105	202 XH ^c	96	275 XH
410-7618-1 - DL	CD-5-S-20.0-20200714	104	181 XH ^c	90	232 XH
410-7618-1 - DL2	CD-5-S-20.0-20200714	0 XL	195 XH ^c	84	250 XH
LCS 410-24739/8	Lab Control Sample	95	93	88	94
LCS 410-25289/8	Lab Control Sample	95	92	87	94
LCSD 410-24739/9	Lab Control Sample Dup	96	93	88	95
LCSD 410-25289/9	Lab Control Sample Dup	96	93	87	95
MB 410-24739/11	Method Blank	100	96	92	98
MB 410-25289/11	Method Blank	100	96	92	99

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(34-117)	(23-115)	(35-135)
410-7618-1	CD-5-S-20.0-20200714	80	102	85
LCS 410-26140/2-A	Lab Control Sample	82	71	94
MB 410-26140/1-A	Method Blank	91	75	107

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		OTP1	CBNZ1
Lab Sample ID	Client Sample ID	(42-143)	(54-137)
410-7618-1	CD-5-S-20.0-20200714	107	595 XH
LCS 410-24025/2-A	Lab Control Sample	104	76
MB 410-24025/1-A	Method Blank	96	80

Surrogate Legend

OTP = o- terphenyl (Surr)
CBNZ = Chlorobenzene (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-24739/11
Matrix: Solid
Analysis Batch: 24739

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		250	20	ug/Kg			07/21/20 17:38	50
1,3,5-Trimethylbenzene	ND		250	25	ug/Kg			07/21/20 17:38	50
Toluene	ND		250	30	ug/Kg			07/21/20 17:38	50
Methyl tertiary butyl ether	ND		250	25	ug/Kg			07/21/20 17:38	50
Benzene	ND		250	25	ug/Kg			07/21/20 17:38	50
1,2,4-Trimethylbenzene	ND		250	25	ug/Kg			07/21/20 17:38	50
Isopropylbenzene	ND		250	20	ug/Kg			07/21/20 17:38	50
1,2-Dibromoethane	ND		250	20	ug/Kg			07/21/20 17:38	50
1,2-Dichloroethane	ND		250	30	ug/Kg			07/21/20 17:38	50
C4-C12-TPH-GRO	ND		5500	2200	ug/Kg			07/21/20 17:38	50
t-Butyl alcohol	ND		5000	750	ug/Kg			07/21/20 17:38	50
Xylenes, Total	ND		500	70	ug/Kg			07/21/20 17:38	50

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*54 - 135*		*07/21/20 17:38*	*50*
4-Bromofluorobenzene (Surr)	*96*		*50 - 131*		*07/21/20 17:38*	*50*
Dibromofluoromethane (Surr)	*92*		*50 - 141*		*07/21/20 17:38*	*50*
Toluene-d8 (Surr)	*98*		*52 - 141*		*07/21/20 17:38*	*50*

Lab Sample ID: LCS 410-24739/8
Matrix: Solid
Analysis Batch: 24739

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C4-C12-TPH-GRO			50000	43500		ug/Kg		87	75 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*54 - 135*
4-Bromofluorobenzene (Surr)	*93*		*50 - 131*
Dibromofluoromethane (Surr)	*88*		*50 - 141*
Toluene-d8 (Surr)	*94*		*52 - 141*

Lab Sample ID: LCSD 410-24739/9
Matrix: Solid
Analysis Batch: 24739

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C4-C12-TPH-GRO			50000	44400		ug/Kg		89	75 - 120	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*54 - 135*
4-Bromofluorobenzene (Surr)	*93*		*50 - 131*
Dibromofluoromethane (Surr)	*88*		*50 - 141*
Toluene-d8 (Surr)	*95*		*52 - 141*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-25289/11
Matrix: Solid
Analysis Batch: 25289

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		250	20	ug/Kg			07/22/20 22:56	50
1,3,5-Trimethylbenzene	ND		250	25	ug/Kg			07/22/20 22:56	50
Toluene	ND		250	30	ug/Kg			07/22/20 22:56	50
Methyl tertiary butyl ether	ND		250	25	ug/Kg			07/22/20 22:56	50
Benzene	ND		250	25	ug/Kg			07/22/20 22:56	50
1,2,4-Trimethylbenzene	ND		250	25	ug/Kg			07/22/20 22:56	50
Isopropylbenzene	ND		250	20	ug/Kg			07/22/20 22:56	50
1,2-Dibromoethane	ND		250	20	ug/Kg			07/22/20 22:56	50
1,2-Dichloroethane	ND		250	30	ug/Kg			07/22/20 22:56	50
C4-C12-TPH-GRO	ND		5500	2200	ug/Kg			07/22/20 22:56	50
t-Butyl alcohol	ND		5000	750	ug/Kg			07/22/20 22:56	50
Xylenes, Total	ND		500	70	ug/Kg			07/22/20 22:56	50

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*54 - 135*		*07/22/20 22:56*	*50*
4-Bromofluorobenzene (Surr)	*96*		*50 - 131*		*07/22/20 22:56*	*50*
Dibromofluoromethane (Surr)	*92*		*50 - 141*		*07/22/20 22:56*	*50*
Toluene-d8 (Surr)	*99*		*52 - 141*		*07/22/20 22:56*	*50*

Lab Sample ID: LCS 410-25289/8
Matrix: Solid
Analysis Batch: 25289

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C4-C12-TPH-GRO			50000	40600		ug/Kg		81	75 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*54 - 135*
4-Bromofluorobenzene (Surr)	*92*		*50 - 131*
Dibromofluoromethane (Surr)	*87*		*50 - 141*
Toluene-d8 (Surr)	*94*		*52 - 141*

Lab Sample ID: LCSD 410-25289/9
Matrix: Solid
Analysis Batch: 25289

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C4-C12-TPH-GRO			50000	39000		ug/Kg		78	75 - 120	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*54 - 135*
4-Bromofluorobenzene (Surr)	*93*		*50 - 131*
Dibromofluoromethane (Surr)	*87*		*50 - 141*
Toluene-d8 (Surr)	*95*		*52 - 141*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-26140/1-A
Matrix: Solid
Analysis Batch: 27164

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 26140

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		17	3.3	ug/Kg		07/24/20 19:00	07/28/20 18:07	1
Benzo[a]anthracene	ND		17	6.7	ug/Kg		07/24/20 19:00	07/28/20 18:07	1
Benzo[a]pyrene	ND		17	3.3	ug/Kg		07/24/20 19:00	07/28/20 18:07	1
Benzo[b]fluoranthene	ND		17	3.3	ug/Kg		07/24/20 19:00	07/28/20 18:07	1
Benzo[g,h,i]perylene	ND		17	3.3	ug/Kg		07/24/20 19:00	07/28/20 18:07	1
Chrysene	ND		17	3.3	ug/Kg		07/24/20 19:00	07/28/20 18:07	1
Fluorene	ND		17	3.3	ug/Kg		07/24/20 19:00	07/28/20 18:07	1
Naphthalene	ND		17	6.7	ug/Kg		07/24/20 19:00	07/28/20 18:07	1
Phenanthrene	ND		17	3.3	ug/Kg		07/24/20 19:00	07/28/20 18:07	1
Pyrene	ND		17	3.3	ug/Kg		07/24/20 19:00	07/28/20 18:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*91*		*34 - 117*	*07/24/20 19:00*	*07/28/20 18:07*	*1*
Nitrobenzene-d5 (Surr)	*75*		*23 - 115*	*07/24/20 19:00*	*07/28/20 18:07*	*1*
p-Terphenyl-d14 (Surr)	*107*		*35 - 135*	*07/24/20 19:00*	*07/28/20 18:07*	*1*

Lab Sample ID: LCS 410-26140/2-A
Matrix: Solid
Analysis Batch: 27164

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26140

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	1670	1590		ug/Kg		95	67 - 120
Benzo[a]anthracene	1670	1610		ug/Kg		97	68 - 120
Benzo[a]pyrene	1670	1600		ug/Kg		96	68 - 119
Benzo[b]fluoranthene	1670	1620		ug/Kg		97	67 - 125
Benzo[g,h,i]perylene	1670	1590		ug/Kg		95	68 - 125
Chrysene	1670	1420		ug/Kg		85	66 - 111
Fluorene	1670	1500		ug/Kg		90	62 - 110
Naphthalene	1680	1270		ug/Kg		75	49 - 104
Phenanthrene	1670	1540		ug/Kg		92	67 - 116
Pyrene	1680	1500		ug/Kg		89	67 - 109

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*82*		*34 - 117*
Nitrobenzene-d5 (Surr)	*71*		*23 - 115*
p-Terphenyl-d14 (Surr)	*94*		*35 - 135*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 410-24025/1-A
Matrix: Solid
Analysis Batch: 25971

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24025

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		12	5.0	mg/Kg		07/19/20 09:47	07/21/20 13:47	1
>C22-C44 (1C)	ND		12	5.0	mg/Kg		07/19/20 09:47	07/21/20 13:47	1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: MB 410-24025/1-A
Matrix: Solid
Analysis Batch: 25971

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24025

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o- terphenyl (Surr) (1C)	*96*		*42 - 143*	*07/19/20 09:47*	*07/21/20 13:47*	*1*
Chlorobenzene (Surr) (1C)	*80*		*54 - 137*	*07/19/20 09:47*	*07/21/20 13:47*	*1*

Lab Sample ID: LCS 410-24025/2-A
Matrix: Solid
Analysis Batch: 25971

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24025

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (C10-C28) (1C)	133	105		mg/Kg		78	76 - 117

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o- terphenyl (Surr) (1C)	*104*		*42 - 143*
Chlorobenzene (Surr) (1C)	*76*		*54 - 137*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-22266/1-A
Matrix: Solid
Analysis Batch: 23252

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 22266

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5	0.60	mg/Kg		07/14/20 10:21	07/16/20 09:34	1

Lab Sample ID: LCS 410-22266/2-A
Matrix: Solid
Analysis Batch: 23252

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 22266

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	3.00	3.06		mg/Kg		102	80 - 120

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-7618-1

GC/MS VOA

Prep Batch: 22667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7618-1 - RA	CD-5-S-20.0-20200714	Total/NA	Solid	5035	
410-7618-1	CD-5-S-20.0-20200714	Total/NA	Solid	5035	
410-7618-1 - DL2	CD-5-S-20.0-20200714	Total/NA	Solid	5035	
410-7618-1 - DL	CD-5-S-20.0-20200714	Total/NA	Solid	5035	

Analysis Batch: 24739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7618-1	CD-5-S-20.0-20200714	Total/NA	Solid	8260C	22667
MB 410-24739/11	Method Blank	Total/NA	Solid	8260C	
LCS 410-24739/8	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 410-24739/9	Lab Control Sample Dup	Total/NA	Solid	8260C	

Analysis Batch: 25289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7618-1 - RA	CD-5-S-20.0-20200714	Total/NA	Solid	8260C	22667
410-7618-1 - DL	CD-5-S-20.0-20200714	Total/NA	Solid	8260C	22667
410-7618-1 - DL2	CD-5-S-20.0-20200714	Total/NA	Solid	8260C	22667
MB 410-25289/11	Method Blank	Total/NA	Solid	8260C	
LCS 410-25289/8	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 410-25289/9	Lab Control Sample Dup	Total/NA	Solid	8260C	

GC/MS Semi VOA

Prep Batch: 26140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7618-1	CD-5-S-20.0-20200714	Total/NA	Solid	3546	
MB 410-26140/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-26140/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 27164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-26140/1-A	Method Blank	Total/NA	Solid	8270D	26140
LCS 410-26140/2-A	Lab Control Sample	Total/NA	Solid	8270D	26140

Analysis Batch: 27500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7618-1	CD-5-S-20.0-20200714	Total/NA	Solid	8270D	26140

GC Semi VOA

Prep Batch: 24025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7618-1	CD-5-S-20.0-20200714	Total/NA	Solid	3546	
MB 410-24025/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-24025/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 25971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7618-1	CD-5-S-20.0-20200714	Total/NA	Solid	8015C	24025
MB 410-24025/1-A	Method Blank	Total/NA	Solid	8015C	24025
LCS 410-24025/2-A	Lab Control Sample	Total/NA	Solid	8015C	24025

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-7618-1

GC Semi VOA

Analysis Batch: 28450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7618-1	CD-5-S-20.0-20200714	Total/NA	Solid	Total TPH	

Metals

Prep Batch: 22266

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7618-1	CD-5-S-20.0-20200714	Total/NA	Solid	3050B	
MB 410-22266/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 410-22266/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 23252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7618-1	CD-5-S-20.0-20200714	Total/NA	Solid	6010C	22266
MB 410-22266/1-A	Method Blank	Total/NA	Solid	6010C	22266
LCS 410-22266/2-A	Lab Control Sample	Total/NA	Solid	6010C	22266

General Chemistry

Analysis Batch: 22493

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7618-1	CD-5-S-20.0-20200714	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-7618-1

Client Sample ID: CD-5-S-20.0-20200714

Lab Sample ID: 410-7618-1

Date Collected: 07/14/20 11:30

Matrix: Solid

Date Received: 07/14/20 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	22493	07/14/20 20:09	OEL4	ELLE

Client Sample ID: CD-5-S-20.0-20200714

Lab Sample ID: 410-7618-1

Date Collected: 07/14/20 11:30

Matrix: Solid

Date Received: 07/14/20 16:15

Percent Solids: 81.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22667	07/15/20 08:20	Z8FW	ELLE
Total/NA	Analysis	8260C		100	24739	07/21/20 19:23	Z6JB	ELLE
Total/NA	Prep	5035	RA		22667	07/15/20 08:20	Z8FW	ELLE
Total/NA	Analysis	8260C	RA	100	25289	07/23/20 01:01	Z6JB	ELLE
Total/NA	Prep	5035	DL		22667	07/15/20 08:20	Z8FW	ELLE
Total/NA	Analysis	8260C	DL	1000	25289	07/23/20 01:23	Z6JB	ELLE
Total/NA	Prep	5035	DL2		22667	07/15/20 08:20	Z8FW	ELLE
Total/NA	Analysis	8260C	DL2	5000	25289	07/23/20 01:45	Z6JB	ELLE
Total/NA	Prep	3546			26140	07/24/20 19:00	QQ3P	ELLE
Total/NA	Analysis	8270D		5	27500	07/29/20 14:45	SJ89	ELLE
Total/NA	Prep	3546			24025	07/19/20 09:47	DN9W	ELLE
Total/NA	Analysis	8015C		1	25971	07/21/20 14:30	KP5X	ELLE
Total/NA	Analysis	Total TPH		1	28450	07/31/20 09:17	KP5X	ELLE
Total/NA	Prep	3050B			22266	07/14/20 10:21	UAMX	ELLE
Total/NA	Analysis	6010C		1	23252	07/16/20 10:41	LR7D	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp. Job ID: 410-7618-1
Project/Site: PHL Penrose Drilling Sampling

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015C	3546	Solid	>C12-C22 (1C)
8015C	3546	Solid	>C22-C44 (1C)
Moisture		Solid	Percent Moisture
Total TPH		Solid	Total Reported TPH

Method Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-7618-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	ELLE
Total TPH	Total TPH	None	ELLE
6010C	Metals (ICP)	SW846	ELLE
Moisture	Percent Moisture	EPA	ELLE
3050B	Preparation, Metals	SW846	ELLE
3546	Microwave Extraction	SW846	ELLE
5035	Closed System Purge and Trap	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-7618-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-7618-1	CD-5-S-20.0-20200714	Solid	07/14/20 11:30	07/14/20 16:15	

Environmental Analysis Custody

eurofins | Lancaster Laboratories Environmental

Acct. # _____

410-7618 Chain of Custody

nmental use only

COC #608749

Client Information

Client: Evergreen c/o Stantec	Acct. #: 16657
Project Name #: PHL Penrose Drilling Sampling	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 213402602
Sampler: Dane Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Soil ☒ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: _____

Analysis Requested — Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil ☒ Sediment	Water: Potable	Water: Ground	Water: NPDES	Other:	Total # of Containers	Custom TPH w/ Ranges	TPH-GRO 8260/moisture (H/O)	Metal 6010/Lead (dissolved 6020 total 6010B) (N)	Sulfide (O)	Chloride, Nitrate Nitrogen, Sulfate	Volatile Headspace Hydrocarbons (H)	Total Alkalinity to 4.5	Ammonia Nitrogen (S)	*Short List VOCs 8260 (including TBA 8260 + EDB8011) (H/O)	*Short List SVOCs 8270	Remarks
CD-5-S-20-20200714	7/14/20	1130	X		X					6	X	X	X						X	X	X = dissolved lead 6020 only

For Lab Use Only
FSC: _____
SCR#: 260645

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks
* refer to Evergreen Petroleum Short List for list of analytes

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: Andrew.klingbeil@stantec.com

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
Dane	7/14/20	11:50	Pierre	7/14/20	11:50
Pierre	7/14/20	15:45			
			W M [illegible]	7/14/20	1615

EDD Required? Yes No
If yes, format: EQUIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____

Temperature upon receipt 2.5 °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT https://www.eurofinsus.com/coc
The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

WM KAM 7044 0919

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-7618-1

Login Number: 7618
List Number: 1
Creator: Mathers, William

List Source: Eurofins Lancaster Laboratories Env

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-7802-1
Client Project/Site: PHL Penrose Drilling Sample
Revision: 1

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Andrew Klingbeil

Authorized for release by:
11/5/2020 7:00:22 PM

Amek Carter, Project Manager
(717)556-7252
amekcarter@eurofinsus.com

LINKS

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www.eurofinsus.com/Env

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

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Amek Carter
Project Manager
11/5/2020 7:00:22 PM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 6
Client Sample Results 7
Surrogate Summary 10
QC Sample Results 12
QC Association Summary 20
Lab Chronicle 24
Certification Summary 25
Method Summary 26
Sample Summary 27
Chain of Custody 28
Receipt Checklists 30

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-7802-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
*H	LCS and/or LCSD recovery above control limits.
H	Sample was prepped or analyzed beyond the specified holding time
XH	Surrogate recovery is above control limits

General Chemistry

Qualifier	Qualifier Description
FL	MS and/or MSD recovery below control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-7802-1

Job ID: 410-7802-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-7802-1

Revision
The report being provided is a revision of the original report sent on 8/25/2020. The report (revision 1) is being revised due to: Sample ID Change - Updated sample ID for CD-5-W-20.0-202007.

Receipt
The samples were received on 7/15/2020 5:10 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.4° C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA
Method 8011: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 410-25374 and analytical batch 410-25771 recovered outside control limits for the following analytes: Ethylene Dibromide. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8015C: Surrogate chlorobenzene recovery for the following sample was outside control limits: CD-5-W-20-0-202007 (410-7802-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method Filtration: The following sample was not filtered within 15 minutes of sample collection as required by the method: CD-5-W-20-0-202007 (410-7802-1). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method 3510C: The following sample was prepared outside of preparation holding time for method 3510C/8015C_DRO due to scheduling error : CD-5-W-20-0-202007 (410-7802-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-7802-1

Client Sample ID: CD-5-W-20.0-202007 — Lab Sample ID: 410-7802-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	730		25	5.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	230		25	1.5	ug/L	5		8260C/UST	Total/NA
Benzene	15		5.0	1.0	ug/L	5		8260C/UST	Total/NA
C4-C12-TPH-GRO	20000		250	150	ug/L	5		8260C/UST	Total/NA
Ethylbenzene	220		5.0	2.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	42		25	1.0	ug/L	5		8260C/UST	Total/NA
Toluene	110		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	970		30	7.0	ug/L	5		8260C/UST	Total/NA
Fluorene	0.56		0.50	0.10	ug/L	1		8270D	Total/NA
Naphthalene	83		0.50	0.10	ug/L	1		8270D	Total/NA
Phenanthrene	0.75		0.50	0.10	ug/L	1		8270D	Total/NA
Ethane (1C)	1.8	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	5500		250	150	ug/L	50		RSK-175	Total/NA
>C12-C22 (1C)	1.7	H	0.096	0.036	mg/L	1		8015C	Total/NA
>C22-C44 (1C)	0.14	H	0.096	0.036	mg/L	1		8015C	Total/NA
Total Reported TPH	1.8		0.20	0.074	mg/L	1		Total TPH	Total/NA
Chloride	13		0.12	0.014	mg/L	1		300.0	Total/NA
Sulfate	74		0.60	0.35	mg/L	1		300.0	Total/NA
Nitrogen, Nitrate	0.51		0.50	0.25	mg/L	5		EPA 300.0 R2.1	Total/NA
Calcium	10		0.20	0.096	mg/L	1		6010C	Total Recoverable
Iron	27		0.20	0.040	mg/L	1		6010C	Total Recoverable
Magnesium	3.6		0.10	0.040	mg/L	1		6010C	Total Recoverable
Potassium	4.6		0.50	0.20	mg/L	1		6010C	Total Recoverable
Sodium	55		1.0	0.24	mg/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	95		8.0	8.0	mg/L	1		2320B-2011	Total/NA

Client Sample ID: TB-20200714 — Lab Sample ID: 410-7802-2

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-7802-1

Client Sample ID: CD-5-W-20.0-202007

Date Collected: 07/14/20 14:50
Date Received: 07/15/20 17:10

Lab Sample ID: 410-7802-1

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**730**		25	5.0	ug/L			07/20/20 13:47	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			07/20/20 13:47	5
1,3,5-Trimethylbenzene	**230**		25	1.5	ug/L			07/20/20 13:47	5
Benzene	**15**		5.0	1.0	ug/L			07/20/20 13:47	5
C4-C12-TPH-GRO	**20000**		250	150	ug/L			07/20/20 13:47	5
Ethylbenzene	**220**		5.0	2.0	ug/L			07/20/20 13:47	5
Isopropylbenzene	**42**		25	1.0	ug/L			07/20/20 13:47	5
Methyl tertiary butyl ether	ND		5.0	1.0	ug/L			07/20/20 13:47	5
Toluene	**110**		5.0	1.0	ug/L			07/20/20 13:47	5
Xylenes, Total	**970**		30	7.0	ug/L			07/20/20 13:47	5
2-Methyl-2-propanol	ND		250	60	ug/L			07/20/20 13:47	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*80 - 120*		*07/20/20 13:47*	*5*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*07/20/20 13:47*	*5*
Dibromofluoromethane (Surr)	*107*		*80 - 120*		*07/20/20 13:47*	*5*
Toluene-d8 (Surr)	*93*		*80 - 120*		*07/20/20 13:47*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		07/19/20 13:41	07/21/20 15:58	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		07/19/20 13:41	07/21/20 15:58	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		07/19/20 13:41	07/21/20 15:58	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		07/19/20 13:41	07/21/20 15:58	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		07/19/20 13:41	07/21/20 15:58	1
Chrysene	ND		0.50	0.10	ug/L		07/19/20 13:41	07/21/20 15:58	1
Fluorene	**0.56**		0.50	0.10	ug/L		07/19/20 13:41	07/21/20 15:58	1
Naphthalene	**83**		0.50	0.10	ug/L		07/19/20 13:41	07/21/20 15:58	1
Phenanthrene	**0.75**		0.50	0.10	ug/L		07/19/20 13:41	07/21/20 15:58	1
Pyrene	ND		0.50	0.10	ug/L		07/19/20 13:41	07/21/20 15:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*71*		*44 - 102*	*07/19/20 13:41*	*07/21/20 15:58*	*1*
Nitrobenzene-d5 (Surr)	*79*		*38 - 113*	*07/19/20 13:41*	*07/21/20 15:58*	*1*
p-Terphenyl-d14 (Surr)	*74*		*34 - 128*	*07/19/20 13:41*	*07/21/20 15:58*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**1.8**	**J**	5.0	1.0	ug/L		07/18/20 09:43	07/18/20 12:18	1
Ethene (1C)	ND		5.0	1.0	ug/L		07/18/20 09:43	07/18/20 12:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*76*		*28 - 140*	*07/18/20 09:43*	*07/18/20 12:18*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**5500**		250	150	ug/L		07/20/20 07:52	07/20/20 12:00	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*83*		*28 - 140*	*07/20/20 07:52*	*07/20/20 12:00*	*50*

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-7802-1

Client Sample ID: CD-5-W-20.0-202007

Date Collected: 07/14/20 14:50
Date Received: 07/15/20 17:10

Lab Sample ID: 410-7802-1

Matrix: Water

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND	*H	0.029	0.0097	ug/L		07/22/20 23:56	07/24/20 00:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*80*		*46 - 136*	*07/22/20 23:56*	*07/24/20 00:23*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*72*		*46 - 136*	*07/22/20 23:56*	*07/24/20 00:23*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	**1.7**	**H**	0.096	0.036	mg/L		08/05/20 10:11	08/06/20 14:44	1
>C22-C44 (1C)	**0.14**	**H**	0.096	0.036	mg/L		08/05/20 10:11	08/06/20 14:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*471*	*XH*	*21 - 116*	*08/05/20 10:11*	*08/06/20 14:44*	*1*
o- terphenyl (Surr) (1C)	*91*		*51 - 126*	*08/05/20 10:11*	*08/06/20 14:44*	*1*

Method: Total TPH - Total TPH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Reported TPH	**1.8**		0.20	0.074	mg/L			07/31/20 09:17	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13**		0.12	0.014	mg/L			07/27/20 11:41	1
Sulfate	**74**		0.60	0.35	mg/L			07/27/20 11:41	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	**0.51**		0.50	0.25	mg/L			07/16/20 09:10	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**10**		0.20	0.096	mg/L		07/16/20 02:05	07/21/20 00:56	1
Iron	**27**		0.20	0.040	mg/L		07/16/20 02:05	07/21/20 00:56	1
Magnesium	**3.6**		0.10	0.040	mg/L		07/16/20 02:05	07/21/20 00:56	1
Potassium	**4.6**		0.50	0.20	mg/L		07/16/20 02:05	07/21/20 00:56	1
Sodium	**55**		1.0	0.24	mg/L		07/16/20 02:05	07/21/20 00:56	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		07/20/20 15:53	07/21/20 16:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**95**		8.0	8.0	mg/L			07/16/20 23:08	1
Ammonia-N	ND		1.5	0.50	mg/L		07/23/20 10:51	07/23/20 15:16	1
Sulfide	ND	FL	0.30	0.10	mg/L			07/17/20 10:39	1

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-7802-1

Client Sample ID: TB-20200714

Date Collected: 07/14/20 00:00
Date Received: 07/15/20 17:10

Lab Sample ID: 410-7802-2

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			07/20/20 14:11	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			07/20/20 14:11	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			07/20/20 14:11	1
Benzene	ND		1.0	0.20	ug/L			07/20/20 14:11	1
C4-C12-TPH-GRO	ND		50	29	ug/L			07/20/20 14:11	1
Ethylbenzene	ND		1.0	0.40	ug/L			07/20/20 14:11	1
Isopropylbenzene	ND		5.0	0.20	ug/L			07/20/20 14:11	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			07/20/20 14:11	1
Toluene	ND		1.0	0.20	ug/L			07/20/20 14:11	1
Xylenes, Total	ND		6.0	1.4	ug/L			07/20/20 14:11	1
2-Methyl-2-propanol	ND		50	12	ug/L			07/20/20 14:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*		*07/20/20 14:11*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*07/20/20 14:11*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*07/20/20 14:11*	*1*
Toluene-d8 (Surr)	*93*		*80 - 120*		*07/20/20 14:11*	*1*

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-7802-1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-7802-1	CD-5-W-20.0-202007	91	98	107	93
410-7802-2	TB-20200714	90	101	104	93
LCS 410-24181/8	Lab Control Sample	90	97	103	95
LCSD 410-24181/9	Lab Control Sample Dup	91	97	106	95
MB 410-24181/5	Method Blank	92	97	106	94

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(44-102)	(38-113)	(34-128)
410-7802-1	CD-5-W-20.0-202007	71	79	74
LCS 410-24051/2-A	Lab Control Sample	85	87	102
MB 410-24051/1-A	Method Blank	79	91	111

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
		Propene1
Lab Sample ID	Client Sample ID	(28-140)
410-7802-1	CD-5-W-20.0-202007	76
410-7802-1 - DL	CD-5-W-20.0-202007	83
LCS 410-23931/2-A	Lab Control Sample	98
LCS 410-24201/2-A	Lab Control Sample	97
LCSD 410-23931/3-A	Lab Control Sample Dup	96
LCSD 410-24201/3-A	Lab Control Sample Dup	96
MB 410-23931/1-A	Method Blank	96
MB 410-24201/1-A	Method Blank	98

Surrogate Legend

Propene = Propene

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		1122TCA1	1122TCA2
Lab Sample ID	Client Sample ID	(46-136)	(46-136)
410-7802-1	CD-5-W-20.0-202007	80	72

Surrogate Summary

Client: Stantec Consulting Corp.
Job ID: 410-7802-1
Project/Site: PHL Penrose Drilling Sample

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Matrix: Water
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		1122TCA1	1122TCA2
Lab Sample ID	Client Sample ID	(46-136)	(46-136)
LCS 410-25374/2-A	Lab Control Sample	63	61
LCSD 410-25374/3-A	Lab Control Sample Dup	59	58
MB 410-25374/1-A	Method Blank	62	62

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Water
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		CBNZ1	OTP1
Lab Sample ID	Client Sample ID	(21-116)	(51-126)
410-7802-1	CD-5-W-20.0-202007	471 XH	91
LCS 410-29798/2-A	Lab Control Sample	72	94
LCSD 410-29798/3-A	Lab Control Sample Dup	74	100
MB 410-29798/1-A	Method Blank	63	79

Surrogate Legend

CBNZ = Chlorobenzene (Surr)
OTP = o- terphenyl (Surr)

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-24181/5
Matrix: Water
Analysis Batch: 24181

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			07/20/20 10:04	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			07/20/20 10:04	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			07/20/20 10:04	1
Benzene	ND		1.0	0.20	ug/L			07/20/20 10:04	1
C4-C12-TPH-GRO	ND		50	29	ug/L			07/20/20 10:04	1
Ethylbenzene	ND		1.0	0.40	ug/L			07/20/20 10:04	1
Isopropylbenzene	ND		5.0	0.20	ug/L			07/20/20 10:04	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			07/20/20 10:04	1
Toluene	ND		1.0	0.20	ug/L			07/20/20 10:04	1
Xylenes, Total	ND		6.0	1.4	ug/L			07/20/20 10:04	1
2-Methyl-2-propanol	ND		50	12	ug/L			07/20/20 10:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*		*07/20/20 10:04*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*07/20/20 10:04*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 120*		*07/20/20 10:04*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*07/20/20 10:04*	*1*

Lab Sample ID: LCS 410-24181/8
Matrix: Water
Analysis Batch: 24181

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C4-C12-TPH-GRO			1000	915		ug/L		92	67 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*80 - 120*
Toluene-d8 (Surr)	*95*		*80 - 120*

Lab Sample ID: LCSD 410-24181/9
Matrix: Water
Analysis Batch: 24181

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C4-C12-TPH-GRO			1000	902		ug/L		90	67 - 120	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*91*		*80 - 120*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Dibromofluoromethane (Surr)	*106*		*80 - 120*
Toluene-d8 (Surr)	*95*		*80 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-24051/1-A
Matrix: Water
Analysis Batch: 24468

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24051

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		07/19/20 13:41	07/20/20 23:09	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		07/19/20 13:41	07/20/20 23:09	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		07/19/20 13:41	07/20/20 23:09	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		07/19/20 13:41	07/20/20 23:09	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		07/19/20 13:41	07/20/20 23:09	1
Chrysene	ND		0.50	0.10	ug/L		07/19/20 13:41	07/20/20 23:09	1
Fluorene	ND		0.50	0.10	ug/L		07/19/20 13:41	07/20/20 23:09	1
Naphthalene	ND		0.50	0.10	ug/L		07/19/20 13:41	07/20/20 23:09	1
Phenanthrene	ND		0.50	0.10	ug/L		07/19/20 13:41	07/20/20 23:09	1
Pyrene	ND		0.50	0.10	ug/L		07/19/20 13:41	07/20/20 23:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*79*		*44 - 102*	*07/19/20 13:41*	*07/20/20 23:09*	*1*
Nitrobenzene-d5 (Surr)	*91*		*38 - 113*	*07/19/20 13:41*	*07/20/20 23:09*	*1*
p-Terphenyl-d14 (Surr)	*111*		*34 - 128*	*07/19/20 13:41*	*07/20/20 23:09*	*1*

Lab Sample ID: LCS 410-24051/2-A
Matrix: Water
Analysis Batch: 24468

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24051

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.1	50.9		ug/L		101	67 - 116
Benzo[a]anthracene	50.0	52.7		ug/L		105	68 - 123
Benzo[a]pyrene	50.2	52.6		ug/L		105	71 - 117
Benzo[b]fluoranthene	50.1	54.1		ug/L		108	69 - 121
Benzo[g,h,i]perylene	50.1	50.0		ug/L		100	60 - 119
Chrysene	50.0	49.5		ug/L		99	65 - 121
Fluorene	50.1	47.6		ug/L		95	56 - 115
Naphthalene	50.4	39.7		ug/L		79	51 - 102
Phenanthrene	50.2	51.0		ug/L		102	65 - 113
Pyrene	50.4	49.4		ug/L		98	65 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*85*		*44 - 102*
Nitrobenzene-d5 (Surr)	*87*		*38 - 113*
p-Terphenyl-d14 (Surr)	*102*		*34 - 128*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-23931/1-A
Matrix: Water
Analysis Batch: 23940

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23931

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		07/18/20 09:43	07/18/20 11:23	1
Ethene (1C)	ND		5.0	1.0	ug/L		07/18/20 09:43	07/18/20 11:23	1
Methane (1C)	ND		5.0	3.0	ug/L		07/18/20 09:43	07/18/20 11:23	1

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: MB 410-23931/1-A
Matrix: Water
Analysis Batch: 23940

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23931

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Propene (1C)	96		28 - 140	07/18/20 09:43	07/18/20 11:23	1

Lab Sample ID: LCS 410-23931/2-A
Matrix: Water
Analysis Batch: 23940

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23931

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethane (1C)	59.4	58.6		ug/L		99	85 - 115
Ethene (1C)	60.4	60.8		ug/L		101	83 - 115
Methane (1C)	59.4	62.1		ug/L		105	85 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Propene (1C)	98		28 - 140

Lab Sample ID: LCSD 410-23931/3-A
Matrix: Water
Analysis Batch: 23940

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 23931

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)	59.4	58.2		ug/L		98	85 - 115	1	20
Ethene (1C)	60.4	60.3		ug/L		100	83 - 115	1	20
Methane (1C)	59.4	61.7		ug/L		104	85 - 115	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Propene (1C)	96		28 - 140

Lab Sample ID: MB 410-24201/1-A
Matrix: Water
Analysis Batch: 24204

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24201

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		07/20/20 07:52	07/20/20 09:37	1
Ethene (1C)	ND		5.0	1.0	ug/L		07/20/20 07:52	07/20/20 09:37	1
Methane (1C)	ND		5.0	3.0	ug/L		07/20/20 07:52	07/20/20 09:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Propene (1C)	98		28 - 140	07/20/20 07:52	07/20/20 09:37	1

Lab Sample ID: LCS 410-24201/2-A
Matrix: Water
Analysis Batch: 24204

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24201

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethane (1C)	59.4	56.3		ug/L		95	85 - 115
Ethene (1C)	60.4	58.8		ug/L		97	83 - 115
Methane (1C)	59.4	60.9		ug/L		103	85 - 115

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCS 410-24201/2-A
Matrix: Water
Analysis Batch: 24204

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24201

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Propene (1C)	97		28 - 140

Lab Sample ID: LCSD 410-24201/3-A
Matrix: Water
Analysis Batch: 24204

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 24201

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	56.3		ug/L		95	85 - 115	0	20
Ethene (1C)			60.4	58.9		ug/L		98	83 - 115	0	20
Methane (1C)			59.4	60.7		ug/L		102	85 - 115	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Propene (1C)	96		28 - 140

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-25374/1-A
Matrix: Water
Analysis Batch: 25771

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25374

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		07/22/20 23:56	07/23/20 21:35	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane (Surr) (1C)	62		46 - 136	07/22/20 23:56	07/23/20 21:35	1
1,1,2,2-Tetrachloroethane (Surr) (2C)	62		46 - 136	07/22/20 23:56	07/23/20 21:35	1

Lab Sample ID: LCS 410-25374/2-A
Matrix: Water
Analysis Batch: 25771

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25374

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.221	*H	ug/L		172	60 - 140		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,1,2,2-Tetrachloroethane (Surr) (1C)	63		46 - 136
1,1,2,2-Tetrachloroethane (Surr) (2C)	61		46 - 136

Lab Sample ID: LCSD 410-25374/3-A
Matrix: Water
Analysis Batch: 25771

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 25374

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.214	*H	ug/L		167	60 - 140	3	20

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: LCSD 410-25374/3-A
Matrix: Water
Analysis Batch: 25771

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 25374

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*59*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*58*		*46 - 136*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 410-29798/1-A
Matrix: Water
Analysis Batch: 31355

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29798

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		0.10	0.037	mg/L		08/05/20 10:11	08/06/20 13:40	1
>C22-C44 (1C)	ND		0.10	0.037	mg/L		08/05/20 10:11	08/06/20 13:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*63*		*21 - 116*	*08/05/20 10:11*	*08/06/20 13:40*	*1*
o- terphenyl (Surr) (1C)	*79*		*51 - 126*	*08/05/20 10:11*	*08/06/20 13:40*	*1*

Lab Sample ID: LCS 410-29798/2-A
Matrix: Water
Analysis Batch: 31355

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29798

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
DRO (C10-C28) (1C)			0.800	0.578		mg/L		72	48 - 116		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Chlorobenzene (Surr) (1C)	*72*		*21 - 116*
o- terphenyl (Surr) (1C)	*94*		*51 - 126*

Lab Sample ID: LCSD 410-29798/3-A
Matrix: Water
Analysis Batch: 31355

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 29798

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (C10-C28) (1C)			0.800	0.601		mg/L		75	48 - 116	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Chlorobenzene (Surr) (1C)	*74*		*21 - 116*
o- terphenyl (Surr) (1C)	*100*		*51 - 126*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 460-711702/3
Matrix: Water
Analysis Batch: 711702

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.12	0.014	mg/L			07/27/20 09:37	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 460-711702/3
Matrix: Water
Analysis Batch: 711702

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		0.60	0.35	mg/L			07/27/20 09:37	1

Lab Sample ID: LCS 460-711702/5
Matrix: Water
Analysis Batch: 711702

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.20	3.10		mg/L		97	90 - 110
Sulfate	4.80	4.41		mg/L		92	90 - 110

Lab Sample ID: LCSD 460-711702/6
Matrix: Water
Analysis Batch: 711702

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3.20	3.13		mg/L		98	90 - 110	1	15
Sulfate	4.80	4.44		mg/L		93	90 - 110	1	15

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Lab Sample ID: MB 410-23101/4
Matrix: Water
Analysis Batch: 23101

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND		0.10	0.050	mg/L			07/16/20 06:42	1

Lab Sample ID: LCS 410-23101/3
Matrix: Water
Analysis Batch: 23101

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Nitrate	0.750	0.736		mg/L		98	90 - 110

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-23012/1-A
Matrix: Water
Analysis Batch: 24531

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 23012

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.20	0.096	mg/L		07/16/20 02:05	07/20/20 23:33	1
Iron	ND		0.20	0.040	mg/L		07/16/20 02:05	07/20/20 23:33	1
Magnesium	ND		0.10	0.040	mg/L		07/16/20 02:05	07/20/20 23:33	1
Potassium	ND		0.50	0.20	mg/L		07/16/20 02:05	07/20/20 23:33	1
Sodium	ND		1.0	0.24	mg/L		07/16/20 02:05	07/20/20 23:33	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 410-23012/2-A
Matrix: Water
Analysis Batch: 24531

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 23012

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	0.400	0.413		mg/L		103	80 - 120
Iron	0.402	0.407		mg/L		101	80 - 120
Magnesium	0.200	0.204		mg/L		102	80 - 120
Potassium	5.60	5.72		mg/L		102	80 - 120
Sodium	2.00	2.07		mg/L		103	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 410-24385/1-A
Matrix: Water
Analysis Batch: 25016

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24385

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		07/20/20 15:53	07/21/20 16:31	1

Lab Sample ID: LCS 410-24385/2-A
Matrix: Water
Analysis Batch: 25016

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24385

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	4.92	5.24		ug/L		106	90 - 115

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 410-23747/17
Matrix: Water
Analysis Batch: 23747

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8.0	8.0	mg/L			07/16/20 21:52	1

Lab Sample ID: LCS 410-23747/18
Matrix: Water
Analysis Batch: 23747

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	189	184		mg/L		98	82 - 106

Method: 4500 NH3 C-2011 - Ammonia

Lab Sample ID: MB 410-25581/1-A
Matrix: Water
Analysis Batch: 25692

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25581

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia-N	ND		0.75	0.25	mg/L		07/23/20 10:51	07/23/20 15:16	1

Method: 4500 NH3 C-2011 - Ammonia (Continued)

Lab Sample ID: LCS 410-25581/2-A
Matrix: Water
Analysis Batch: 25692

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25581

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia-N			500	476		mg/L		95	93 - 100		

Method: 4500 S2 D-2011 - Sulfide, Total

Lab Sample ID: MB 410-23638/1
Matrix: Water
Analysis Batch: 23638

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.30	0.10	mg/L			07/17/20 10:39	1

Lab Sample ID: LCS 410-23638/13
Matrix: Water
Analysis Batch: 23638

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide			1.00	0.984		mg/L		98	90 - 110		

Lab Sample ID: 410-7802-1 MS
Matrix: Water
Analysis Batch: 23638

Client Sample ID: CD-5-W-20.0-202007
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide	ND	FL	0.525	0.325	FL	mg/L		62	90 - 110		

Lab Sample ID: 410-7802-1 MSD
Matrix: Water
Analysis Batch: 23638

Client Sample ID: CD-5-W-20.0-202007
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfide	ND	FL	0.525	0.267	J FL	mg/L		51	90 - 110	20	29

Lab Sample ID: 410-7802-1 DU
Matrix: Water
Analysis Batch: 23638

Client Sample ID: CD-5-W-20.0-202007
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfide	ND	FL	0.124	J	mg/L		NC	5

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-7802-1

GC/MS VOA

Analysis Batch: 24181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7802-1	CD-5-W-20.0-202007	Total/NA	Water	8260C/UST	
410-7802-2	TB-20200714	Total/NA	Water	8260C/UST	
MB 410-24181/5	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-24181/8	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-24181/9	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

GC/MS Semi VOA

Prep Batch: 24051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7802-1	CD-5-W-20.0-202007	Total/NA	Water	3510C	
MB 410-24051/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-24051/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 24468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-24051/1-A	Method Blank	Total/NA	Water	8270D	24051
LCS 410-24051/2-A	Lab Control Sample	Total/NA	Water	8270D	24051

Analysis Batch: 24622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7802-1	CD-5-W-20.0-202007	Total/NA	Water	8270D	24051

GC VOA

Prep Batch: 23931

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7802-1	CD-5-W-20.0-202007	Total/NA	Water	RSK-175	
MB 410-23931/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-23931/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-23931/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 23940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7802-1	CD-5-W-20.0-202007	Total/NA	Water	RSK-175	23931
MB 410-23931/1-A	Method Blank	Total/NA	Water	RSK-175	23931
LCS 410-23931/2-A	Lab Control Sample	Total/NA	Water	RSK-175	23931
LCSD 410-23931/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	23931

Prep Batch: 24201

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7802-1 - DL	CD-5-W-20.0-202007	Total/NA	Water	RSK-175	
MB 410-24201/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-24201/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-24201/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 24204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7802-1 - DL	CD-5-W-20.0-202007	Total/NA	Water	RSK-175	24201
MB 410-24201/1-A	Method Blank	Total/NA	Water	RSK-175	24201
LCS 410-24201/2-A	Lab Control Sample	Total/NA	Water	RSK-175	24201
LCSD 410-24201/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	24201

GC Semi VOA

Prep Batch: 25374

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7802-1	CD-5-W-20.0-202007	Total/NA	Water	8011	
MB 410-25374/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-25374/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-25374/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 25771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7802-1	CD-5-W-20.0-202007	Total/NA	Water	8011	25374
MB 410-25374/1-A	Method Blank	Total/NA	Water	8011	25374
LCS 410-25374/2-A	Lab Control Sample	Total/NA	Water	8011	25374
LCSD 410-25374/3-A	Lab Control Sample Dup	Total/NA	Water	8011	25374

Analysis Batch: 28450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7802-1	CD-5-W-20.0-202007	Total/NA	Water	Total TPH	

Prep Batch: 29798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7802-1	CD-5-W-20.0-202007	Total/NA	Water	3510C	
MB 410-29798/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-29798/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-29798/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 31355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7802-1	CD-5-W-20.0-202007	Total/NA	Water	8015C	29798
MB 410-29798/1-A	Method Blank	Total/NA	Water	8015C	29798
LCS 410-29798/2-A	Lab Control Sample	Total/NA	Water	8015C	29798
LCSD 410-29798/3-A	Lab Control Sample Dup	Total/NA	Water	8015C	29798

HPLC/IC

Analysis Batch: 23101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7802-1	CD-5-W-20.0-202007	Total/NA	Water	EPA 300.0 R2.1	
MB 410-23101/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-23101/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 711702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7802-1	CD-5-W-20.0-202007	Total/NA	Water	300.0	
MB 460-711702/3	Method Blank	Total/NA	Water	300.0	
LCS 460-711702/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 460-711702/6	Lab Control Sample Dup	Total/NA	Water	300.0	

Metals

Prep Batch: 23012

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7802-1	CD-5-W-20.0-202007	Total Recoverable	Water	3005A	
MB 410-23012/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-23012/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Metals

Filtration Batch: 23668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7802-1	CD-5-W-20.0-202007	Dissolved	Water	Filtration	

Prep Batch: 24385

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7802-1	CD-5-W-20.0-202007	Dissolved	Water	Non-Digest Prep	23668
MB 410-24385/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-24385/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	

Analysis Batch: 24531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7802-1	CD-5-W-20.0-202007	Total Recoverable	Water	6010C	23012
MB 410-23012/1-A	Method Blank	Total Recoverable	Water	6010C	23012
LCS 410-23012/2-A	Lab Control Sample	Total Recoverable	Water	6010C	23012

Analysis Batch: 25016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7802-1	CD-5-W-20.0-202007	Dissolved	Water	6020A	24385
MB 410-24385/1-A	Method Blank	Total/NA	Water	6020A	24385
LCS 410-24385/2-A	Lab Control Sample	Total/NA	Water	6020A	24385

General Chemistry

Analysis Batch: 23638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7802-1	CD-5-W-20.0-202007	Total/NA	Water	4500 S2 D-2011	
MB 410-23638/1	Method Blank	Total/NA	Water	4500 S2 D-2011	
LCS 410-23638/13	Lab Control Sample	Total/NA	Water	4500 S2 D-2011	
410-7802-1 MS	CD-5-W-20.0-202007	Total/NA	Water	4500 S2 D-2011	
410-7802-1 MSD	CD-5-W-20.0-202007	Total/NA	Water	4500 S2 D-2011	
410-7802-1 DU	CD-5-W-20.0-202007	Total/NA	Water	4500 S2 D-2011	

Analysis Batch: 23747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7802-1	CD-5-W-20.0-202007	Total/NA	Water	2320B-2011	
MB 410-23747/17	Method Blank	Total/NA	Water	2320B-2011	
LCS 410-23747/18	Lab Control Sample	Total/NA	Water	2320B-2011	

Prep Batch: 25581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7802-1	CD-5-W-20.0-202007	Total/NA	Water	4500 NH3 B-2011	
MB 410-25581/1-A	Method Blank	Total/NA	Water	4500 NH3 B-2011	
LCS 410-25581/2-A	Lab Control Sample	Total/NA	Water	4500 NH3 B-2011	

Analysis Batch: 25692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7802-1	CD-5-W-20.0-202007	Total/NA	Water	4500 NH3 C-2011	25581
MB 410-25581/1-A	Method Blank	Total/NA	Water	4500 NH3 C-2011	25581

General Chemistry (Continued)

Analysis Batch: 25692 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-25581/2-A	Lab Control Sample	Total/NA	Water	4500 NH3 C-2011	25581

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-7802-1

Client Sample ID: CD-5-W-20.0-202007

Lab Sample ID: 410-7802-1

Date Collected: 07/14/20 14:50

Matrix: Water

Date Received: 07/15/20 17:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	24181	07/20/20 13:47	TK5O	ELLE
Total/NA	Prep	3510C			24051	07/19/20 13:41	OT54	ELLE
Total/NA	Analysis	8270D		1	24622	07/21/20 15:58	WKV3	ELLE
Total/NA	Prep	RSK-175			23931	07/18/20 09:43	IYN5	ELLE
Total/NA	Analysis	RSK-175		1	23940	07/18/20 12:18	IYN5	ELLE
Total/NA	Prep	RSK-175	DL		24201	07/20/20 07:52	IYN5	ELLE
Total/NA	Analysis	RSK-175	DL	50	24204	07/20/20 12:00	IYN5	ELLE
Total/NA	Prep	8011			25374	07/22/20 23:56	K2IL	ELLE
Total/NA	Analysis	8011		1	25771	07/24/20 00:23	AC3T	ELLE
Total/NA	Prep	3510C			29798	08/05/20 10:11	I5BW	ELLE
Total/NA	Analysis	8015C		1	31355	08/06/20 14:44	YHQ2	ELLE
Total/NA	Analysis	Total TPH		1	28450	07/31/20 09:17	KP5X	ELLE
Total/NA	Analysis	300.0		1	711702	07/27/20 11:41	VMI	TAL EDI
Total/NA	Analysis	EPA 300.0 R2.1		5	23101	07/16/20 09:10	GJ35	ELLE
Total Recoverable	Prep	3005A			23012	07/16/20 02:05	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	24531	07/21/20 00:56	ULJC	ELLE
Dissolved	Filtration	Filtration			23668	07/17/20 11:20	UAMX	ELLE
Dissolved	Prep	Non-Digest Prep			24385	07/20/20 15:53	UJLA	ELLE
Dissolved	Analysis	6020A		1	25016	07/21/20 16:53	UPJE	ELLE
Total/NA	Analysis	2320B-2011		1	23747	07/16/20 23:08	JB	ELLE
Total/NA	Prep	4500 NH3 B-2011			25581	07/23/20 10:51	P8DZ	ELLE
Total/NA	Analysis	4500 NH3 C-2011		1	25692	07/23/20 15:16	P8DZ	ELLE
Total/NA	Analysis	4500 S2 D-2011		1	23638	07/17/20 10:39	P8DZ	ELLE

Client Sample ID: TB-20200714

Lab Sample ID: 410-7802-2

Date Collected: 07/14/20 00:00

Matrix: Water

Date Received: 07/15/20 17:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	24181	07/20/20 14:11	TK5O	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Job ID: 410-7802-1
Project/Site: PHL Penrose Drilling Sample

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015C	3510C	Water	>C12-C22 (1C)
8015C	3510C	Water	>C22-C44 (1C)
Total TPH		Water	Total Reported TPH

Laboratory: Eurofins TestAmerica, Edison

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	68-00522	09-30-20

Method Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-7802-1

Method	Method Description	Protocol	Laboratory
8260C/UST	Volatile Organic Compounds (GC/MS)	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
RSK-175	Dissolved Gases (GC)	RSK	ELLE
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	ELLE
Total TPH	Total TPH	None	ELLE
300.0	Anions, Ion Chromatography	MCAWW	TAL EDI
EPA 300.0 R2.1	Anions, Ion Chromatgraphy	EPA	ELLE
6010C	Metals (ICP)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
2320B-2011	Alkalinity, Total	SM	ELLE
4500 NH3 C-2011	Ammonia	SM	ELLE
4500 S2 D-2011	Sulfide, Total	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
4500 NH3 B-2011	Ammonia, Distillation	SM	ELLE
5030C	Purge and Trap	SW846	ELLE
8011	Microextraction	SW846	ELLE
Filtration	Sample Filtration	None	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-7802-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-7802-1	CD-5-W-20.0-202007	Water	07/14/20 14:50	07/15/20 17:10	
410-7802-2	TB-20200714	Water	07/14/20 00:00	07/15/20 17:10	

Environmental Analysis R[illegible] Custody

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Acct. # _____

410-7802 Chain of Custody

[illegible]ental use only

COC # 608592

Client Information

Client: Evergreen c/o Stantec	Acct. #:
Project Name/#: PHC Penrose Drilling Sampling	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 213402602
Sampler: Dane Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: trip blank

For Lab Use Only
FSC: _____
SCR#: 260764

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks
*refer to Evergreen Petroleum Short List for list of analytes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Water	Other	Total # of Containers	Custom TPH w/ Ranges	TPH-GRO 8260/moisture	Metal 6010/Lead (dissolved 6020 total 6010B)	Sulfide	Chloride, Nitrate Nitrogen Sulfate	Volatile Headspace Hydrocarbons	Total Alkalinity to 4.5	Ammonia Nitrogen	*Short List VOCs 8260 including TBA 8260+EDB8011	*Short List SVOCs 8270
CD-5-W-20.0-202007	7/14/20	1450	X			X		17	X	X	X	X	X	X	X	X	X	X
TB-20200714							X	2									X	

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: andrew.klingbeil@stantec.com

Relinquished by	Date	Time	Received by	Date	Time
[signature]	7/15/20	1158	[signature]	7.15.20	1158
[signature]	7.15.20	1656			
			[signature]	7-15-20	710

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

EDD Required? Yes No
If yes, format: EQUIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:
UPS _____ FedEx _____ Other _____

Temperature upon receipt 1.4 °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT https://www.eurofinsus.com/coc
The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0919

C-J

11/5/2020 (Rev. 1)

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Carter, Amek A	Carrier Tracking No(s):	COC No: 410-92714.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: amekcarter@eurofinsus.com	State of Origin: Pennsylvania	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Pennsylvania		Job #: 410-7802-1
Address: 777 New Durham Road, ,	Due Date Requested: 7/27/2020			
City: Edison	TAT Requested (days):			
State, Zip: NJ, 08817				
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	PO #:			
Email:	WO #:			
Project Name: PHL Penrose Drilling Sample	Project #: 41002220			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D/ (MOD) Local Method	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X		X	
CD-5-W-20-0-202007 (410-7802-1)	7/14/20	14:50 Eastern		Water			X	3	1 ③ HLC 2213 7-21-2020

Note: Since laboratory accreditations are subject to change, Eurofins Lancaster Laboratories Env places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Lancaster Laboratories Env laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Lancaster Laboratories Env attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Lancaster Laboratories Env.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Hawk L Gatt	Date/Time: 7-21-2020 1157	Company: ELLE	Received by: RPMdhm	Date/Time: 21July20 1315	Company: ELLE
Relinquished by: RPMdhm	Date/Time: 21July20 1645	Company: ELLE	Received by: [signature]	Date/Time: 7/21/20 1645	Company: TAEDI
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	JR11 2.3/1.1°C	

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Stantec Consulting Corp. Job Number: 410-7802-1

Login Number: 7802 **List Source: Eurofins Lancaster Laboratories Env**
List Number: 1
Creator: Jeremiah, Cory T

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	True	

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-7802-1

Login Number: 7802
List Number: 2
Creator: Armbruster, Chris

List Source: Eurofins TestAmerica, Edison
List Creation: 07/23/20 03:19 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.3, 1.1°C IR11
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-7956-1
Client Project/Site: PHL Penrose Drilling Sample

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Andrew Klingbeil

Authorized for release by:
8/30/2020 11:50:03 AM

Amek Carter, Project Manager
(717)556-7252
amekcarter@eurofinsus.com

LINKS

Review your project results through TotalAccess

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments. QC data that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result. Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

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Amek Carter
Project Manager
8/30/2020 11:50:03 AM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 6
Detection Summary 7
Client Sample Results 8
Surrogate Summary 11
QC Sample Results 13
QC Association Summary 22
Lab Chronicle 26
Certification Summary 27
Method Summary 28
Sample Summary 29
Chain of Custody 30
Receipt Checklists 32

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-7956-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
XH	Surrogate recovery is above control limits

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-7956-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-7956-1

Comments
No additional comments.

Receipt
The sample was received on 7/16/2020 4:40 PM; the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.2º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: Naphthalene and Phenanthrene were detected above the reporting limit (RL) in the method blank associated with preparation batch 410-24428 and analytical batch 410-25005 as well as in the following sample: CD-5-W-44.0-20200715 (410-7956-1). All affected samples were re-extracted and re-analyzed outside of holding time with acceptable results. The first set of data has been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA
Method 8011: The 1,1,2,2-Tetrachloroethane (Surr) surrogate recovery for the following samples was outside acceptance limits (high biased) on the primary column due to matrix interference: CD-5-W-44.0-20200715 (410-7956-1). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control. Sample is non detect for the target analyte.

Method 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: CD-5-W-44.0-20200715 (410-7956-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method Filtration: The following sample was not filtered within 15 minutes of sample collection as required by the method: CD-5-W-44.0-20200715 (410-7956-1). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method 3510C: The following sample was prepared outside of preparation holding time for method 3510C/8015C_DRO due to scheduling error : CD-5-W-44.0-20200715 (410-7956-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-7956-1

Client Sample ID: CD-5-W-44.0-20200715

Lab Sample ID: 410-7956-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	300		25	5.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	110		25	1.5	ug/L	5		8260C/UST	Total/NA
C4-C12-TPH-GRO	12000		250	150	ug/L	5		8260C/UST	Total/NA
Ethylbenzene	170		5.0	2.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	23	J	25	1.0	ug/L	5		8260C/UST	Total/NA
Methyl tertiary butyl ether	8.1		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Toluene	230		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	940		30	7.0	ug/L	5		8260C/UST	Total/NA
Benzene - DL	1100		50	10	ug/L	50		8260C/UST	Total/NA
Naphthalene	50	B	0.50	0.10	ug/L	1		8270D	Total/NA
Phenanthrene	0.16	J B	0.50	0.10	ug/L	1		8270D	Total/NA
Ethane (1C)	1.3	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	3800		100	60	ug/L	20		RSK-175	Total/NA
>C12-C22 (1C)	0.47	H	0.095	0.035	mg/L	1		8015C	Total/NA
>C22-C44 (1C)	0.18	H	0.095	0.035	mg/L	1		8015C	Total/NA
Total Reported TPH	0.65		0.20	0.074	mg/L	1		Total TPH	Total/NA
Chloride	430		1.2	0.14	mg/L	10		300.0	Total/NA
Sulfate	88		0.60	0.35	mg/L	1		300.0	Total/NA
Nitrogen, Nitrate	0.64		0.50	0.25	mg/L	5		EPA 300.0 R2.1	Total/NA
Calcium	25		0.20	0.096	mg/L	1		6010C	Total Recoverable
Iron	6.1		0.20	0.040	mg/L	1		6010C	Total Recoverable
Magnesium	18		0.10	0.040	mg/L	1		6010C	Total Recoverable
Potassium	6.3	B	0.50	0.20	mg/L	1		6010C	Total Recoverable
Sodium	490		5.0	1.2	mg/L	5		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	480		8.0	8.0	mg/L	1		2320B-2011	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CD-5-W-44.0-20200715

Date Collected: 07/15/20 17:30
Date Received: 07/16/20 16:40

Lab Sample ID: 410-7956-1

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**300**		25	5.0	ug/L			07/27/20 12:13	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			07/27/20 12:13	5
1,3,5-Trimethylbenzene	**110**		25	1.5	ug/L			07/27/20 12:13	5
C4-C12-TPH-GRO	**12000**		250	150	ug/L			07/27/20 12:13	5
Ethylbenzene	**170**		5.0	2.0	ug/L			07/27/20 12:13	5
Isopropylbenzene	**23**	**J**	25	1.0	ug/L			07/27/20 12:13	5
Methyl tertiary butyl ether	**8.1**		5.0	1.0	ug/L			07/27/20 12:13	5
Toluene	**230**		5.0	1.0	ug/L			07/27/20 12:13	5
Xylenes, Total	**940**		30	7.0	ug/L			07/27/20 12:13	5
2-Methyl-2-propanol	ND		250	60	ug/L			07/27/20 12:13	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*		*07/27/20 12:13*	*5*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*07/27/20 12:13*	*5*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*07/27/20 12:13*	*5*
Toluene-d8 (Surr)	*93*		*80 - 120*		*07/27/20 12:13*	*5*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1100**		50	10	ug/L			07/27/20 12:37	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*		*07/27/20 12:37*	*50*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*07/27/20 12:37*	*50*
Dibromofluoromethane (Surr)	*105*		*80 - 120*		*07/27/20 12:37*	*50*
Toluene-d8 (Surr)	*92*		*80 - 120*		*07/27/20 12:37*	*50*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND	B	0.50	0.10	ug/L		07/20/20 17:41	07/22/20 17:38	1
Benzo[a]anthracene	ND	B	0.50	0.10	ug/L		07/20/20 17:41	07/22/20 17:38	1
Benzo[a]pyrene	ND	B	0.50	0.10	ug/L		07/20/20 17:41	07/22/20 17:38	1
Benzo[b]fluoranthene	ND	B	0.50	0.10	ug/L		07/20/20 17:41	07/22/20 17:38	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		07/20/20 17:41	07/22/20 17:38	1
Chrysene	ND	B	0.50	0.10	ug/L		07/20/20 17:41	07/22/20 17:38	1
Fluorene	ND	B	0.50	0.10	ug/L		07/20/20 17:41	07/22/20 17:38	1
Naphthalene	**50**	**B**	0.50	0.10	ug/L		07/20/20 17:41	07/22/20 17:38	1
Phenanthrene	**0.16**	**J B**	0.50	0.10	ug/L		07/20/20 17:41	07/22/20 17:38	1
Pyrene	ND	B	0.50	0.10	ug/L		07/20/20 17:41	07/22/20 17:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*75*		*44 - 102*	*07/20/20 17:41*	*07/22/20 17:38*	*1*
Nitrobenzene-d5 (Surr)	*79*		*38 - 113*	*07/20/20 17:41*	*07/22/20 17:38*	*1*
p-Terphenyl-d14 (Surr)	*44*		*34 - 128*	*07/20/20 17:41*	*07/22/20 17:38*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**1.3**	**J**	5.0	1.0	ug/L		07/17/20 10:01	07/17/20 15:11	1
Ethene (1C)	ND		5.0	1.0	ug/L		07/17/20 10:01	07/17/20 15:11	1

Client Sample ID: CD-5-W-44.0-20200715

Date Collected: 07/15/20 17:30
Date Received: 07/16/20 16:40

Lab Sample ID: 410-7956-1

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*59*		*28 - 140*	*07/17/20 10:01*	*07/17/20 15:11*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**3800**		100	60	ug/L		07/20/20 07:52	07/20/20 11:42	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*82*		*28 - 140*	*07/20/20 07:52*	*07/20/20 11:42*	*20*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (2C)	ND		0.029	0.0096	ug/L		07/18/20 06:38	07/23/20 02:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*404*	*XH*	*46 - 136*	*07/18/20 06:38*	*07/23/20 02:59*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*70*		*46 - 136*	*07/18/20 06:38*	*07/23/20 02:59*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	**0.47**	**H**	0.095	0.035	mg/L		08/05/20 10:11	08/06/20 15:05	1
>C22-C44 (1C)	**0.18**	**H**	0.095	0.035	mg/L		08/05/20 10:11	08/06/20 15:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o- terphenyl (Surr) (1C)	*62*		*51 - 126*	*08/05/20 10:11*	*08/06/20 15:05*	*1*
Chlorobenzene (Surr) (1C)	*85*		*21 - 116*	*08/05/20 10:11*	*08/06/20 15:05*	*1*

Method: Total TPH - Total TPH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Reported TPH	**0.65**		0.20	0.074	mg/L			08/11/20 11:58	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**430**		1.2	0.14	mg/L			07/27/20 13:23	10
Sulfate	**88**		0.60	0.35	mg/L			07/27/20 12:11	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	**0.64**		0.50	0.25	mg/L			07/17/20 10:06	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**25**		0.20	0.096	mg/L		07/17/20 05:24	07/22/20 12:38	1
Iron	**6.1**		0.20	0.040	mg/L		07/17/20 05:24	07/22/20 12:38	1
Magnesium	**18**		0.10	0.040	mg/L		07/17/20 05:24	07/22/20 12:38	1
Potassium	**6.3**	**B**	0.50	0.20	mg/L		07/17/20 05:24	07/22/20 12:38	1
Sodium	**490**		5.0	1.2	mg/L		07/17/20 05:24	07/23/20 14:17	5

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		07/20/20 15:53	07/21/20 17:00	1

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-7956-1

Client Sample ID: CD-5-W-44.0-20200715
Date Collected: 07/15/20 17:30
Date Received: 07/16/20 16:40

Lab Sample ID: 410-7956-1
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	480		8.0	8.0	mg/L			07/17/20 21:20	1
Ammonia-N	ND		1.5	0.50	mg/L		07/23/20 10:51	07/23/20 15:16	1
Sulfide	ND		0.30	0.10	mg/L			07/17/20 10:39	1

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-7956-1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-7956-1	CD-5-W-44.0-20200715	88	97	103	93
410-7956-1 - DL	CD-5-W-44.0-20200715	88	95	105	92
LCS 410-26573/6	Lab Control Sample	91	98	105	92
LCS 410-26573/8	Lab Control Sample	88	100	103	93
LCSD 410-26573/7	Lab Control Sample Dup	93	96	106	91
LCSD 410-26573/9	Lab Control Sample Dup	88	99	103	94
MB 410-26573/5	Method Blank	89	95	105	91

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(44-102)	(38-113)	(34-128)
410-7956-1	CD-5-W-44.0-20200715	75	79	44
LCS 410-24428/2-A	Lab Control Sample	64	72	81
MB 410-24428/1-A	Method Blank	72	79	87

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		Propene1
Lab Sample ID	Client Sample ID	(28-140)
410-7956-1	CD-5-W-44.0-20200715	59
410-7956-1 - DL	CD-5-W-44.0-20200715	82
LCS 410-23609/2-A	Lab Control Sample	94
LCS 410-24201/2-A	Lab Control Sample	97
LCSD 410-23609/3-A	Lab Control Sample Dup	94
LCSD 410-24201/3-A	Lab Control Sample Dup	96
MB 410-23609/1-A	Method Blank	93
MB 410-24201/1-A	Method Blank	98

Surrogate Legend

Propene = Propene

Surrogate Summary

Client: Stantec Consulting Corp.
Job ID: 410-7956-1
Project/Site: PHL Penrose Drilling Sample

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1122TCA1	1122TCA2
Lab Sample ID	Client Sample ID	(46-136)	(46-136)
410-7956-1	CD-5-W-44.0-20200715	404 XH	70
LCS 410-23886/2-A	Lab Control Sample	60	59
LCSD 410-23886/3-A	Lab Control Sample Dup	51	55
MB 410-23886/1-A	Method Blank	56	56

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		OTP1	CBNZ1
Lab Sample ID	Client Sample ID	(51-126)	(21-116)
410-7956-1	CD-5-W-44.0-20200715	62	85
LCS 410-29798/2-A	Lab Control Sample	94	72
LCSD 410-29798/3-A	Lab Control Sample Dup	100	74
MB 410-29798/1-A	Method Blank	79	63

Surrogate Legend

OTP = o- terphenyl (Surr)
CBNZ = Chlorobenzene (Surr)

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-26573/5
Matrix: Water
Analysis Batch: 26573

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			07/27/20 10:06	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			07/27/20 10:06	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			07/27/20 10:06	1
Benzene	ND		1.0	0.20	ug/L			07/27/20 10:06	1
C4-C12-TPH-GRO	ND		50	29	ug/L			07/27/20 10:06	1
Ethylbenzene	ND		1.0	0.40	ug/L			07/27/20 10:06	1
Isopropylbenzene	ND		5.0	0.20	ug/L			07/27/20 10:06	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			07/27/20 10:06	1
Toluene	ND		1.0	0.20	ug/L			07/27/20 10:06	1
Xylenes, Total	ND		6.0	1.4	ug/L			07/27/20 10:06	1
2-Methyl-2-propanol	ND		50	12	ug/L			07/27/20 10:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*89*		*80 - 120*		*07/27/20 10:06*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*07/27/20 10:06*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 120*		*07/27/20 10:06*	*1*
Toluene-d8 (Surr)	*91*		*80 - 120*		*07/27/20 10:06*	*1*

Lab Sample ID: LCS 410-26573/6
Matrix: Water
Analysis Batch: 26573

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	20.0	16.6		ug/L		83	75 - 120
1,2-Dichloroethane	20.0	19.0		ug/L		95	73 - 124
1,3,5-Trimethylbenzene	20.0	16.3		ug/L		81	75 - 120
Benzene	20.0	20.0		ug/L		100	80 - 120
Ethylbenzene	20.0	17.6		ug/L		88	80 - 120
Isopropylbenzene	20.0	17.6		ug/L		88	80 - 120
Methyl tertiary butyl ether	20.0	18.5		ug/L		93	69 - 122
Naphthalene	20.0	14.4		ug/L		72	53 - 124
Toluene	20.0	17.9		ug/L		89	80 - 120
Xylenes, Total	60.0	53.2		ug/L		89	80 - 120
2-Methyl-2-propanol	200	163		ug/L		81	60 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*91*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*105*		*80 - 120*
Toluene-d8 (Surr)	*92*		*80 - 120*

Lab Sample ID: LCS 410-26573/8
Matrix: Water
Analysis Batch: 26573

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C4-C12-TPH-GRO	1000	981		ug/L		98	67 - 120

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-26573/8
Matrix: Water
Analysis Batch: 26573

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*80 - 120*
Toluene-d8 (Surr)	*93*		*80 - 120*

Lab Sample ID: LCSD 410-26573/7
Matrix: Water
Analysis Batch: 26573

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene			20.0	17.7		ug/L		88	75 - 120	6	30
1,2-Dichloroethane			20.0	19.4		ug/L		97	73 - 124	2	30
1,3,5-Trimethylbenzene			20.0	17.5		ug/L		88	75 - 120	7	30
Benzene			20.0	20.7		ug/L		103	80 - 120	3	30
Ethylbenzene			20.0	18.2		ug/L		91	80 - 120	3	30
Isopropylbenzene			20.0	18.1		ug/L		90	80 - 120	3	30
Methyl tertiary butyl ether			20.0	18.3		ug/L		92	69 - 122	1	30
Naphthalene			20.0	15.1		ug/L		75	53 - 124	5	30
Toluene			20.0	18.4		ug/L		92	80 - 120	3	30
Xylenes, Total			60.0	55.0		ug/L		92	80 - 120	3	30
2-Methyl-2-propanol			200	173		ug/L		86	60 - 130	6	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*93*		*80 - 120*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*106*		*80 - 120*
Toluene-d8 (Surr)	*91*		*80 - 120*

Lab Sample ID: LCSD 410-26573/9
Matrix: Water
Analysis Batch: 26573

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C4-C12-TPH-GRO			1000	1020		ug/L		102	67 - 120	4	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*80 - 120*
Toluene-d8 (Surr)	*94*		*80 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-24428/1-A
Matrix: Water
Analysis Batch: 24727

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24428

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	0.262	J B	0.50	0.10	ug/L		07/20/20 17:41	07/21/20 14:45	1
Benzo[a]anthracene	0.296	J B	0.50	0.10	ug/L		07/20/20 17:41	07/21/20 14:45	1
Benzo[a]pyrene	0.345	J B	0.50	0.10	ug/L		07/20/20 17:41	07/21/20 14:45	1
Benzo[b]fluoranthene	0.397	J B	0.50	0.10	ug/L		07/20/20 17:41	07/21/20 14:45	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		07/20/20 17:41	07/21/20 14:45	1
Chrysene	0.269	J B	0.50	0.10	ug/L		07/20/20 17:41	07/21/20 14:45	1
Fluorene	0.277	J B	0.50	0.10	ug/L		07/20/20 17:41	07/21/20 14:45	1
Naphthalene	0.154	J B	0.50	0.10	ug/L		07/20/20 17:41	07/21/20 14:45	1
Phenanthrene	0.328	J B	0.50	0.10	ug/L		07/20/20 17:41	07/21/20 14:45	1
Pyrene	0.369	J B	0.50	0.10	ug/L		07/20/20 17:41	07/21/20 14:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*72*		*44 - 102*	*07/20/20 17:41*	*07/21/20 14:45*	*1*
Nitrobenzene-d5 (Surr)	*79*		*38 - 113*	*07/20/20 17:41*	*07/21/20 14:45*	*1*
p-Terphenyl-d14 (Surr)	*87*		*34 - 128*	*07/20/20 17:41*	*07/21/20 14:45*	*1*

Lab Sample ID: LCS 410-24428/2-A
Matrix: Water
Analysis Batch: 24727

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24428

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.1	39.5		ug/L		79	67 - 116
Benzo[a]anthracene	50.0	44.7		ug/L		89	68 - 123
Benzo[a]pyrene	50.2	41.7		ug/L		83	71 - 117
Benzo[b]fluoranthene	50.1	45.3		ug/L		90	69 - 121
Benzo[g,h,i]perylene	50.1	33.3		ug/L		67	60 - 119
Chrysene	50.0	42.0		ug/L		84	65 - 121
Fluorene	50.1	37.1		ug/L		74	56 - 115
Naphthalene	50.4	29.4		ug/L		58	51 - 102
Phenanthrene	50.2	40.8		ug/L		81	65 - 113
Pyrene	50.4	41.0		ug/L		81	65 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*64*		*44 - 102*
Nitrobenzene-d5 (Surr)	*72*		*38 - 113*
p-Terphenyl-d14 (Surr)	*81*		*34 - 128*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-23609/1-A
Matrix: Water
Analysis Batch: 23624

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23609

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		07/17/20 10:01	07/17/20 11:12	1
Ethene (1C)	ND		5.0	1.0	ug/L		07/17/20 10:01	07/17/20 11:12	1
Methane (1C)	ND		5.0	3.0	ug/L		07/17/20 10:01	07/17/20 11:12	1

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: MB 410-23609/1-A
Matrix: Water
Analysis Batch: 23624

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23609

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Propene (1C)	93		28 - 140	07/17/20 10:01	07/17/20 11:12	1

Lab Sample ID: LCS 410-23609/2-A
Matrix: Water
Analysis Batch: 23624

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23609

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethane (1C)	59.4	54.3		ug/L		91	85 - 115
Ethene (1C)	60.4	56.6		ug/L		94	83 - 115
Methane (1C)	59.4	58.5		ug/L		99	85 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Propene (1C)	94		28 - 140

Lab Sample ID: LCSD 410-23609/3-A
Matrix: Water
Analysis Batch: 23624

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 23609

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)	59.4	55.2		ug/L		93	85 - 115	2	20
Ethene (1C)	60.4	57.4		ug/L		95	83 - 115	1	20
Methane (1C)	59.4	59.3		ug/L		100	85 - 115	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Propene (1C)	94		28 - 140

Lab Sample ID: MB 410-24201/1-A
Matrix: Water
Analysis Batch: 24204

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24201

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		07/20/20 07:52	07/20/20 09:37	1
Ethene (1C)	ND		5.0	1.0	ug/L		07/20/20 07:52	07/20/20 09:37	1
Methane (1C)	ND		5.0	3.0	ug/L		07/20/20 07:52	07/20/20 09:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Propene (1C)	98		28 - 140	07/20/20 07:52	07/20/20 09:37	1

Lab Sample ID: LCS 410-24201/2-A
Matrix: Water
Analysis Batch: 24204

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24201

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethane (1C)	59.4	56.3		ug/L		95	85 - 115
Ethene (1C)	60.4	58.8		ug/L		97	83 - 115
Methane (1C)	59.4	60.9		ug/L		103	85 - 115

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCS 410-24201/2-A
Matrix: Water
Analysis Batch: 24204

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24201

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Propene (1C)	97		28 - 140

Lab Sample ID: LCSD 410-24201/3-A
Matrix: Water
Analysis Batch: 24204

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 24201

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	56.3		ug/L		95	85 - 115	0	20
Ethene (1C)			60.4	58.9		ug/L		98	83 - 115	0	20
Methane (1C)			59.4	60.7		ug/L		102	85 - 115	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Propene (1C)	96		28 - 140

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-23886/1-A
Matrix: Water
Analysis Batch: 25287

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23886

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		07/18/20 06:38	07/22/20 21:05	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane (Surr) (1C)	56		46 - 136	07/18/20 06:38	07/22/20 21:05	1
1,1,2,2-Tetrachloroethane (Surr) (2C)	56		46 - 136	07/18/20 06:38	07/22/20 21:05	1

Lab Sample ID: LCS 410-23886/2-A
Matrix: Water
Analysis Batch: 25287

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23886

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.125		ug/L		98	60 - 140		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,1,2,2-Tetrachloroethane (Surr) (1C)	60		46 - 136
1,1,2,2-Tetrachloroethane (Surr) (2C)	59		46 - 136

Lab Sample ID: LCSD 410-23886/3-A
Matrix: Water
Analysis Batch: 25287

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 23886

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.114		ug/L		89	60 - 140	9	20

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: LCSD 410-23886/3-A
Matrix: Water
Analysis Batch: 25287

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 23886

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*51*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*55*		*46 - 136*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 410-29798/1-A
Matrix: Water
Analysis Batch: 31355

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29798

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		0.10	0.037	mg/L		08/05/20 10:11	08/06/20 13:40	1
>C22-C44 (1C)	ND		0.10	0.037	mg/L		08/05/20 10:11	08/06/20 13:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o- terphenyl (Surr) (1C)	*79*		*51 - 126*	*08/05/20 10:11*	*08/06/20 13:40*	*1*
Chlorobenzene (Surr) (1C)	*63*		*21 - 116*	*08/05/20 10:11*	*08/06/20 13:40*	*1*

Lab Sample ID: LCS 410-29798/2-A
Matrix: Water
Analysis Batch: 31355

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29798

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
DRO (C10-C28) (1C)			0.800	0.578		mg/L		72	48 - 116		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o- terphenyl (Surr) (1C)	*94*		*51 - 126*
Chlorobenzene (Surr) (1C)	*72*		*21 - 116*

Lab Sample ID: LCSD 410-29798/3-A
Matrix: Water
Analysis Batch: 31355

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 29798

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (C10-C28) (1C)			0.800	0.601		mg/L		75	48 - 116	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o- terphenyl (Surr) (1C)	*100*		*51 - 126*
Chlorobenzene (Surr) (1C)	*74*		*21 - 116*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 460-711702/3
Matrix: Water
Analysis Batch: 711702

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.12	0.014	mg/L			07/27/20 09:37	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 460-711702/3
Matrix: Water
Analysis Batch: 711702

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		0.60	0.35	mg/L			07/27/20 09:37	1

Lab Sample ID: LCS 460-711702/5
Matrix: Water
Analysis Batch: 711702

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			3.20	3.10		mg/L		97	90 - 110		
Sulfate			4.80	4.41		mg/L		92	90 - 110		

Lab Sample ID: LCSD 460-711702/6
Matrix: Water
Analysis Batch: 711702

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			3.20	3.13		mg/L		98	90 - 110	1	15
Sulfate			4.80	4.44		mg/L		93	90 - 110	1	15

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Lab Sample ID: MB 410-23588/4
Matrix: Water
Analysis Batch: 23588

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND		0.10	0.050	mg/L			07/17/20 08:18	1

Lab Sample ID: LCS 410-23588/3
Matrix: Water
Analysis Batch: 23588

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrogen, Nitrate			0.750	0.728		mg/L		97	90 - 110		

Lab Sample ID: 410-7956-1 MS
Matrix: Water
Analysis Batch: 23588

Client Sample ID: CD-5-W-44.0-20200715
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrogen, Nitrate	0.64		2.50	3.03		mg/L		96	90 - 110		

Lab Sample ID: 410-7956-1 DU
Matrix: Water
Analysis Batch: 23588

Client Sample ID: CD-5-W-44.0-20200715
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Nitrogen, Nitrate	0.64			0.639		mg/L				0.2	15

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-23483/1-A
Matrix: Water
Analysis Batch: 25177

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 23483

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.20	0.096	mg/L		07/17/20 05:24	07/22/20 11:24	1
Iron	ND		0.20	0.040	mg/L		07/17/20 05:24	07/22/20 11:24	1
Magnesium	ND		0.10	0.040	mg/L		07/17/20 05:24	07/22/20 11:24	1
Potassium	0.202	J B	0.50	0.20	mg/L		07/17/20 05:24	07/22/20 11:24	1
Sodium	ND		1.0	0.24	mg/L		07/17/20 05:24	07/22/20 11:24	1

Lab Sample ID: LCS 410-23483/2-A
Matrix: Water
Analysis Batch: 25177

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 23483

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	0.400	0.418		mg/L		104	80 - 120
Iron	0.402	0.396		mg/L		98	80 - 120
Magnesium	0.200	0.199		mg/L		100	80 - 120
Potassium	5.60	5.56		mg/L		99	80 - 120
Sodium	2.00	1.99		mg/L		99	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 410-24385/1-A
Matrix: Water
Analysis Batch: 25016

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24385

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		07/20/20 15:53	07/21/20 16:31	1

Lab Sample ID: LCS 410-24385/2-A
Matrix: Water
Analysis Batch: 25016

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24385

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	4.92	5.24		ug/L		106	90 - 115

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 410-24378/19
Matrix: Water
Analysis Batch: 24378

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8.0	8.0	mg/L			07/17/20 20:04	1

Lab Sample ID: LCS 410-24378/20
Matrix: Water
Analysis Batch: 24378

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	189	184		mg/L		97	82 - 106

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-7956-1

Method: 4500 NH3 C-2011 - Ammonia

Lab Sample ID: MB 410-25581/1-A
Matrix: Water
Analysis Batch: 25692

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25581

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia-N	ND		0.75	0.25	mg/L		07/23/20 10:51	07/23/20 15:16	1

Lab Sample ID: LCS 410-25581/2-A
Matrix: Water
Analysis Batch: 25692

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25581

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia-N	500	476		mg/L		95	93 - 100

Method: 4500 S2 D-2011 - Sulfide, Total

Lab Sample ID: MB 410-23638/1
Matrix: Water
Analysis Batch: 23638

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.30	0.10	mg/L			07/17/20 10:39	1

Lab Sample ID: LCS 410-23638/13
Matrix: Water
Analysis Batch: 23638

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	1.00	0.984		mg/L		98	90 - 110

GC/MS VOA

Analysis Batch: 26573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7956-1	CD-5-W-44.0-20200715	Total/NA	Water	8260C/UST	
410-7956-1 - DL	CD-5-W-44.0-20200715	Total/NA	Water	8260C/UST	
MB 410-26573/5	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-26573/6	Lab Control Sample	Total/NA	Water	8260C/UST	
LCS 410-26573/8	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-26573/7	Lab Control Sample Dup	Total/NA	Water	8260C/UST	
LCSD 410-26573/9	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

GC/MS Semi VOA

Prep Batch: 24428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7956-1	CD-5-W-44.0-20200715	Total/NA	Water	3510C	
MB 410-24428/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-24428/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 24727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-24428/1-A	Method Blank	Total/NA	Water	8270D	24428
LCS 410-24428/2-A	Lab Control Sample	Total/NA	Water	8270D	24428

Analysis Batch: 25005

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7956-1	CD-5-W-44.0-20200715	Total/NA	Water	8270D	24428

GC VOA

Prep Batch: 23609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7956-1	CD-5-W-44.0-20200715	Total/NA	Water	RSK-175	
MB 410-23609/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-23609/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-23609/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 23624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7956-1	CD-5-W-44.0-20200715	Total/NA	Water	RSK-175	23609
MB 410-23609/1-A	Method Blank	Total/NA	Water	RSK-175	23609
LCS 410-23609/2-A	Lab Control Sample	Total/NA	Water	RSK-175	23609
LCSD 410-23609/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	23609

Prep Batch: 24201

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7956-1 - DL	CD-5-W-44.0-20200715	Total/NA	Water	RSK-175	
MB 410-24201/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-24201/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-24201/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 24204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7956-1 - DL	CD-5-W-44.0-20200715	Total/NA	Water	RSK-175	24201
MB 410-24201/1-A	Method Blank	Total/NA	Water	RSK-175	24201

GC VOA (Continued)

Analysis Batch: 24204 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-24201/2-A	Lab Control Sample	Total/NA	Water	RSK-175	24201
LCSD 410-24201/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	24201

GC Semi VOA

Prep Batch: 23886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7956-1	CD-5-W-44.0-20200715	Total/NA	Water	8011	
MB 410-23886/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-23886/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-23886/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 25287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7956-1	CD-5-W-44.0-20200715	Total/NA	Water	8011	23886
MB 410-23886/1-A	Method Blank	Total/NA	Water	8011	23886
LCS 410-23886/2-A	Lab Control Sample	Total/NA	Water	8011	23886
LCSD 410-23886/3-A	Lab Control Sample Dup	Total/NA	Water	8011	23886

Prep Batch: 29798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7956-1	CD-5-W-44.0-20200715	Total/NA	Water	3510C	
MB 410-29798/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-29798/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-29798/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 31355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7956-1	CD-5-W-44.0-20200715	Total/NA	Water	8015C	29798
MB 410-29798/1-A	Method Blank	Total/NA	Water	8015C	29798
LCS 410-29798/2-A	Lab Control Sample	Total/NA	Water	8015C	29798
LCSD 410-29798/3-A	Lab Control Sample Dup	Total/NA	Water	8015C	29798

Analysis Batch: 31867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7956-1	CD-5-W-44.0-20200715	Total/NA	Water	Total TPH	

HPLC/IC

Analysis Batch: 23588

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7956-1	CD-5-W-44.0-20200715	Total/NA	Water	EPA 300.0 R2.1	
MB 410-23588/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-23588/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
410-7956-1 MS	CD-5-W-44.0-20200715	Total/NA	Water	EPA 300.0 R2.1	
410-7956-1 DU	CD-5-W-44.0-20200715	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 711702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7956-1	CD-5-W-44.0-20200715	Total/NA	Water	300.0	
410-7956-1	CD-5-W-44.0-20200715	Total/NA	Water	300.0	
MB 460-711702/3	Method Blank	Total/NA	Water	300.0	

HPLC/IC (Continued)

Analysis Batch: 711702 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 460-711702/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 460-711702/6	Lab Control Sample Dup	Total/NA	Water	300.0	

Metals

Prep Batch: 23483

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7956-1	CD-5-W-44.0-20200715	Total Recoverable	Water	3005A	
MB 410-23483/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-23483/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Filtration Batch: 23668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7956-1	CD-5-W-44.0-20200715	Dissolved	Water	Filtration	

Prep Batch: 24385

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7956-1	CD-5-W-44.0-20200715	Dissolved	Water	Non-Digest Prep	23668
MB 410-24385/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-24385/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	

Analysis Batch: 25016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7956-1	CD-5-W-44.0-20200715	Dissolved	Water	6020A	24385
MB 410-24385/1-A	Method Blank	Total/NA	Water	6020A	24385
LCS 410-24385/2-A	Lab Control Sample	Total/NA	Water	6020A	24385

Analysis Batch: 25177

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7956-1	CD-5-W-44.0-20200715	Total Recoverable	Water	6010C	23483
MB 410-23483/1-A	Method Blank	Total Recoverable	Water	6010C	23483
LCS 410-23483/2-A	Lab Control Sample	Total Recoverable	Water	6010C	23483

Analysis Batch: 25680

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7956-1	CD-5-W-44.0-20200715	Total Recoverable	Water	6010C	23483

General Chemistry

Analysis Batch: 23638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7956-1	CD-5-W-44.0-20200715	Total/NA	Water	4500 S2 D-2011	
MB 410-23638/1	Method Blank	Total/NA	Water	4500 S2 D-2011	
LCS 410-23638/13	Lab Control Sample	Total/NA	Water	4500 S2 D-2011	

Analysis Batch: 24378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7956-1	CD-5-W-44.0-20200715	Total/NA	Water	2320B-2011	
MB 410-24378/19	Method Blank	Total/NA	Water	2320B-2011	
LCS 410-24378/20	Lab Control Sample	Total/NA	Water	2320B-2011	

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-7956-1

General Chemistry

Prep Batch: 25581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7956-1	CD-5-W-44.0-20200715	Total/NA	Water	4500 NH3 B-2011	
MB 410-25581/1-A	Method Blank	Total/NA	Water	4500 NH3 B-2011	
LCS 410-25581/2-A	Lab Control Sample	Total/NA	Water	4500 NH3 B-2011	

Analysis Batch: 25692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-7956-1	CD-5-W-44.0-20200715	Total/NA	Water	4500 NH3 C-2011	25581
MB 410-25581/1-A	Method Blank	Total/NA	Water	4500 NH3 C-2011	25581
LCS 410-25581/2-A	Lab Control Sample	Total/NA	Water	4500 NH3 C-2011	25581

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-7956-1

Client Sample ID: CD-5-W-44.0-20200715

Date Collected: 07/15/20 17:30
Date Received: 07/16/20 16:40

Lab Sample ID: 410-7956-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	26573	07/27/20 12:13	TK5O	ELLE
Total/NA	Analysis	8260C/UST	DL	50	26573	07/27/20 12:37	TK5O	ELLE
Total/NA	Prep	3510C			24428	07/20/20 17:41	OT54	ELLE
Total/NA	Analysis	8270D		1	25005	07/22/20 17:38	X3ZL	ELLE
Total/NA	Prep	RSK-175			23609	07/17/20 10:01	IYN5	ELLE
Total/NA	Analysis	RSK-175		1	23624	07/17/20 15:11	IYN5	ELLE
Total/NA	Prep	RSK-175	DL		24201	07/20/20 07:52	IYN5	ELLE
Total/NA	Analysis	RSK-175	DL	20	24204	07/20/20 11:42	IYN5	ELLE
Total/NA	Prep	8011			23886	07/18/20 06:38	UKQ8	ELLE
Total/NA	Analysis	8011		1	25287	07/23/20 02:59	AC3T	ELLE
Total/NA	Prep	3510C			29798	08/05/20 10:11	I5BW	ELLE
Total/NA	Analysis	8015C		1	31355	08/06/20 15:05	YHQ2	ELLE
Total/NA	Analysis	Total TPH		1	31867	08/11/20 11:58	KP5X	ELLE
Total/NA	Analysis	300.0		1	711702	07/27/20 12:11	VMI	TAL EDI
Total/NA	Analysis	300.0		10	711702	07/27/20 13:23	VMI	TAL EDI
Total/NA	Analysis	EPA 300.0 R2.1		5	23588	07/17/20 10:06	GJ35	ELLE
Total Recoverable	Prep	3005A			23483	07/17/20 05:24	UAMX	ELLE
Total Recoverable	Analysis	6010C		1	25177	07/22/20 12:38	LR7D	ELLE
Total Recoverable	Prep	3005A			23483	07/17/20 05:24	UAMX	ELLE
Total Recoverable	Analysis	6010C		5	25680	07/23/20 14:17	LR7D	ELLE
Dissolved	Filtration	Filtration			23668	07/17/20 11:20	UAMX	ELLE
Dissolved	Prep	Non-Digest Prep			24385	07/20/20 15:53	UJLA	ELLE
Dissolved	Analysis	6020A		1	25016	07/21/20 17:00	UPJE	ELLE
Total/NA	Analysis	2320B-2011		1	24378	07/17/20 21:20	DI9Q	ELLE
Total/NA	Prep	4500 NH3 B-2011			25581	07/23/20 10:51	P8DZ	ELLE
Total/NA	Analysis	4500 NH3 C-2011		1	25692	07/23/20 15:16	P8DZ	ELLE
Total/NA	Analysis	4500 S2 D-2011		1	23638	07/17/20 10:39	P8DZ	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Job ID: 410-7956-1
Project/Site: PHL Penrose Drilling Sample

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015C	3510C	Water	>C12-C22 (1C)
8015C	3510C	Water	>C22-C44 (1C)
Total TPH		Water	Total Reported TPH

Laboratory: Eurofins TestAmerica, Edison

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	68-00522	02-28-21

Method Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-7956-1

Method	Method Description	Protocol	Laboratory
8260C/UST	Volatile Organic Compounds (GC/MS)	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
RSK-175	Dissolved Gases (GC)	RSK	ELLE
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	ELLE
Total TPH	Total TPH	None	ELLE
300.0	Anions, Ion Chromatography	MCAWW	TAL EDI
EPA 300.0 R2.1	Anions, Ion Chromatgraphy	EPA	ELLE
6010C	Metals (ICP)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
2320B-2011	Alkalinity, Total	SM	ELLE
4500 NH3 C-2011	Ammonia	SM	ELLE
4500 S2 D-2011	Sulfide, Total	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
4500 NH3 B-2011	Ammonia, Distillation	SM	ELLE
5030C	Purge and Trap	SW846	ELLE
8011	Microextraction	SW846	ELLE
Filtration	Sample Filtration	None	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-7956-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-7956-1	CD-5-W-44.0-20200715	Water	07/15/20 17:30	07/16/20 16:40	

Environmental Analysis Re[illegible]ustody

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Acct. # _____

410-7956 Chain of Custody

[illegible]l use only

COC # 608896

Client Information

Client: Evergreen c/o Stantec	Acct. #: 16657
Project Name/#: PHL [illegible] Penrose Drilling Sampling	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 213402602
Sampler: Dane Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ Surface ☐ NPDES ☐ | Other: _____

Analysis Requested — Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Water	Other	Total # of Containers	Custom TPH w/ Ranges	TPH-GRO 8260/moisture	Metal 6010/Lead (dissolved 6020/total 6010B)	Sulfide	Chloride/Nitrate Nitrogen Sulfate	Volatile Headspace Hydrocarbons	Total Alkalinity to 4.5	Ammonia Nitrogen	*Short List VOCs 8260 including TBA 8260 + EDB8011	*Short List SVOCs 8270	Remarks
										H	N	O		H		S	H		
CD-5-W-44.0-20200715	7/15/2020	1730	X			X		17	X	X	X	X	X	X	X	X	X	X	*refer to Evergreen Petroleum Short List for list of analytes

For Lab Use Only
FSC: _____
SCR#: _____

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: Andrew.Klingbeil@stantec.com

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
Dane	7/16/20	12:05	Pierre	7/16/20	12:05
Pierre	7/16/20	16:30			
			W Mthns	7/16/20	1640

EDD Required? Yes No
If yes, format: EQUIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:
UPS _____ FedEx _____ Other _____

Temperature upon receipt 22 °C

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Carter, Amek A	Carrier Tracking No(s):	COC No: 410-102635.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: amekcarter@eurofinsus.com	State of Origin: Pennsylvania	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Pennsylvania		Job #: 410-7956-1
Address: 777 New Durham Road,	Due Date Requested: 7/28/2020			
City: Edison	TAT Requested (days):			
State, Zip: NJ, 08817				
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	PO #:			
Email:	WO #:			
Project Name: PHL Penrose Drilling Sample	Project #: 41002220			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D/ (MOD) Local Method	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
CD-5-W-44.0-20200715 (410-7956-1)	7/15/20	17:30 Eastern		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Lancaster Laboratories Env places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Lancaster Laboratories Env laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Lancaster Laboratories Env attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Lancaster Laboratories Env.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company		Date/Time:	Company
Relinquished by: [signature]	7-21-2020 1153	ECLE	Received by: [signature]	21 July 20 1315	ECLE
Relinquished by: [signature]	21 July 20 1645	ECLE	Received by: [signature]	7/21/20 1645	TAL 601
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: IR11 2.3/1.1°C

Ver: 01/16/2019

8/30/2020

Login Sample Receipt Checklist

Client: Stantec Consulting Corp. Job Number: 410-7956-1

Login Number: 7956 **List Source: Eurofins Lancaster Laboratories Env**
List Number: 1
Creator: Jeremiah, Cory T

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-7956-1

Login Number: 7956
List Number: 2
Creator: Armbruster, Chris

List Source: Eurofins TestAmerica, Edison
List Creation: 07/23/20 03:19 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.3, 1.1°C IR11
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-8129-1
Client Project/Site: PHL Penrose Drilling Sampling
Revision: 1

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Andrew Klingbeil

Authorized for release by:
11/5/2020 5:19:56 PM

Amek Carter, Project Manager
(717)556-7252
amekcarter@eurofinsus.com

LINKS

Review your project results through TotalAccess

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
11/5/2020 5:19:56 PM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 6
Client Sample Results 7
Surrogate Summary 9
QC Sample Results 10
QC Association Summary 14
Lab Chronicle 16
Certification Summary 17
Method Summary 18
Sample Summary 19
Chain of Custody 20
Receipt Checklists 21

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8129-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
XL	Surrogate recovery is below control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-8129-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-8129-1

Revision
The report being provided is a revision of the original report sent on 8/21/2020. The report (revision 1) is being revised due to: Analyte List Change - Added TBA.

Receipt
The sample was received on 7/17/2020 4:15 PM; the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.1° C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA
Method 8015C: Chlorobenzene and o-terphenyl surrogate recoveries for the following sample in preparation batch 410-26312 and analytical batch 410-33184 were below the lower control limit: CD-6C-S-9.0-20200717 (410-8129-1). This sample did not contain any target analytes. Method hold time has been exceeded by 2X, therefore re-extraction was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8129-1

Client Sample ID: CD-6C-S-9.0-20200717

Lab Sample ID: 410-8129-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	4.2	J	20	4.0	ug/Kg	1	☼	8270D	Total/NA
Chrysene	4.7	J	20	4.0	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	4.9	J	20	4.0	ug/Kg	1	☼	8270D	Total/NA
Pyrene	7.9	J	20	4.0	ug/Kg	1	☼	8270D	Total/NA
Lead	9.1		1.5	0.60	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CD-6C-S-9.0-20200717

Date Collected: 07/17/20 08:10
Date Received: 07/17/20 16:15

Lab Sample ID: 410-8129-1

Matrix: Solid
Percent Solids: 83.1

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		7.6	0.61	ug/Kg	☼	07/20/20 08:19	07/28/20 13:27	1
1,3,5-Trimethylbenzene	ND		7.6	0.76	ug/Kg	☼	07/20/20 08:19	07/28/20 13:27	1
Toluene	ND		7.6	0.92	ug/Kg	☼	07/20/20 08:19	07/28/20 13:27	1
Methyl tertiary butyl ether	ND		7.6	0.76	ug/Kg	☼	07/20/20 08:19	07/28/20 13:27	1
Benzene	ND		7.6	0.76	ug/Kg	☼	07/20/20 08:19	07/28/20 13:27	1
Naphthalene	ND		7.6	3.1	ug/Kg	☼	07/20/20 08:19	07/28/20 13:27	1
1,2,4-Trimethylbenzene	ND		7.6	0.76	ug/Kg	☼	07/20/20 08:19	07/28/20 13:27	1
Isopropylbenzene	ND		7.6	0.61	ug/Kg	☼	07/20/20 08:19	07/28/20 13:27	1
1,2-Dibromoethane	ND		7.6	0.61	ug/Kg	☼	07/20/20 08:19	07/28/20 13:27	1
1,2-Dichloroethane	ND		7.6	0.92	ug/Kg	☼	07/20/20 08:19	07/28/20 13:27	1
C4-C12-TPH-GRO	ND		170	67	ug/Kg	☼	07/20/20 08:19	07/28/20 13:27	1
Xylenes, Total	ND		15	2.1	ug/Kg	☼	07/20/20 08:19	07/28/20 13:27	1
t-Butyl alcohol	ND		150	23	ug/Kg	☼	07/20/20 08:19	07/28/20 13:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*54 - 135*	*07/20/20 08:19*	*07/28/20 13:27*	*1*
4-Bromofluorobenzene (Surr)	*94*		*50 - 131*	*07/20/20 08:19*	*07/28/20 13:27*	*1*
Dibromofluoromethane (Surr)	*102*		*50 - 141*	*07/20/20 08:19*	*07/28/20 13:27*	*1*
Toluene-d8 (Surr)	*99*		*52 - 141*	*07/20/20 08:19*	*07/28/20 13:27*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		20	4.0	ug/Kg	☼	07/31/20 18:30	08/02/20 21:14	1
Benzo[a]anthracene	ND		20	8.0	ug/Kg	☼	07/31/20 18:30	08/02/20 21:14	1
Benzo[a]pyrene	ND		20	4.0	ug/Kg	☼	07/31/20 18:30	08/02/20 21:14	1
Benzo[b]fluoranthene	**4.2**	**J**	20	4.0	ug/Kg	☼	07/31/20 18:30	08/02/20 21:14	1
Benzo[g,h,i]perylene	ND		20	4.0	ug/Kg	☼	07/31/20 18:30	08/02/20 21:14	1
Chrysene	**4.7**	**J**	20	4.0	ug/Kg	☼	07/31/20 18:30	08/02/20 21:14	1
Fluorene	ND		20	4.0	ug/Kg	☼	07/31/20 18:30	08/02/20 21:14	1
Naphthalene	ND		20	8.0	ug/Kg	☼	07/31/20 18:30	08/02/20 21:14	1
Phenanthrene	**4.9**	**J**	20	4.0	ug/Kg	☼	07/31/20 18:30	08/02/20 21:14	1
Pyrene	**7.9**	**J**	20	4.0	ug/Kg	☼	07/31/20 18:30	08/02/20 21:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*65*		*34 - 117*	*07/31/20 18:30*	*08/02/20 21:14*	*1*
Nitrobenzene-d5 (Surr)	*67*		*23 - 115*	*07/31/20 18:30*	*08/02/20 21:14*	*1*
p-Terphenyl-d14 (Surr)	*64*		*35 - 135*	*07/31/20 18:30*	*08/02/20 21:14*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		14	6.0	mg/Kg	☼	07/25/20 09:46	08/14/20 13:28	1
>C22-C44 (1C)	ND		14	6.0	mg/Kg	☼	07/25/20 09:46	08/14/20 13:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o- terphenyl (Surr) (1C)	*18*	*XL*	*42 - 143*	*07/25/20 09:46*	*08/14/20 13:28*	*1*
Chlorobenzene (Surr) (1C)	*13*	*XL*	*54 - 137*	*07/25/20 09:46*	*08/14/20 13:28*	*1*

Method: Total TPH - Total TPH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Reported TPH	ND		0.24	0.089	mg/Kg	☼		08/11/20 11:58	1

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8129-1

Client Sample ID: CD-6C-S-9.0-20200717
Date Collected: 07/17/20 08:10
Date Received: 07/17/20 16:15

Lab Sample ID: 410-8129-1
Matrix: Solid
Percent Solids: 83.1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	9.1		1.5	0.60	mg/Kg	☼	07/20/20 05:17	07/22/20 00:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.9		1.0	1.0	%			07/18/20 01:41	1

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8129-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(54-135)	(50-131)	(50-141)	(52-141)
410-8129-1	CD-6C-S-9.0-20200717	105	94	102	99
LCS 410-27000/7	Lab Control Sample	102	97	99	101
LCSD 410-27000/6	Lab Control Sample Dup	101	98	100	102
LCSD 410-27000/8	Lab Control Sample Dup	104	98	99	102
MB 410-27000/9	Method Blank	101	93	101	100

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(34-117)	(23-115)	(35-135)
410-8129-1	CD-6C-S-9.0-20200717	65	67	64
LCS 410-28583/2-A	Lab Control Sample	83	89	107
MB 410-28583/1-A	Method Blank	75	79	103

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		OTP1	CBNZ1
Lab Sample ID	Client Sample ID	(42-143)	(54-137)
410-8129-1	CD-6C-S-9.0-20200717	18 XL	13 XL
LCS 410-26312/2-A	Lab Control Sample	103	81
MB 410-26312/1-A	Method Blank	91	78

Surrogate Legend

OTP = o- terphenyl (Surr)
CBNZ = Chlorobenzene (Surr)

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8129-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-27000/9
Matrix: Solid
Analysis Batch: 27000

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		5.0	0.40	ug/Kg			07/28/20 12:49	1
1,3,5-Trimethylbenzene	ND		5.0	0.50	ug/Kg			07/28/20 12:49	1
Toluene	ND		5.0	0.60	ug/Kg			07/28/20 12:49	1
Methyl tertiary butyl ether	ND		5.0	0.50	ug/Kg			07/28/20 12:49	1
Benzene	ND		5.0	0.50	ug/Kg			07/28/20 12:49	1
Naphthalene	ND		5.0	2.0	ug/Kg			07/28/20 12:49	1
1,2,4-Trimethylbenzene	ND		5.0	0.50	ug/Kg			07/28/20 12:49	1
Isopropylbenzene	ND		5.0	0.40	ug/Kg			07/28/20 12:49	1
1,2-Dibromoethane	ND		5.0	0.40	ug/Kg			07/28/20 12:49	1
1,2-Dichloroethane	ND		5.0	0.60	ug/Kg			07/28/20 12:49	1
C4-C12-TPH-GRO	ND		110	44	ug/Kg			07/28/20 12:49	1
Xylenes, Total	ND		10	1.4	ug/Kg			07/28/20 12:49	1
t-Butyl alcohol	ND		100	15	ug/Kg			07/28/20 12:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*54 - 135*		*07/28/20 12:49*	*1*
4-Bromofluorobenzene (Surr)	*93*		*50 - 131*		*07/28/20 12:49*	*1*
Dibromofluoromethane (Surr)	*101*		*50 - 141*		*07/28/20 12:49*	*1*
Toluene-d8 (Surr)	*100*		*52 - 141*		*07/28/20 12:49*	*1*

Lab Sample ID: LCS 410-27000/7
Matrix: Solid
Analysis Batch: 27000

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C4-C12-TPH-GRO			1000	1020		ug/Kg		102	75 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*54 - 135*
4-Bromofluorobenzene (Surr)	*97*		*50 - 131*
Dibromofluoromethane (Surr)	*99*		*50 - 141*
Toluene-d8 (Surr)	*101*		*52 - 141*

Lab Sample ID: LCSD 410-27000/6
Matrix: Solid
Analysis Batch: 27000

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene			20.0	20.0		ug/Kg		100	78 - 120	NaN	30
1,3,5-Trimethylbenzene			20.0	20.2		ug/Kg		101	73 - 120	NaN	30
Toluene			20.0	20.8		ug/Kg		104	80 - 120	NaN	30
Methyl tertiary butyl ether			20.0	17.8		ug/Kg		89	72 - 120	NaN	30
Benzene			20.0	20.6		ug/Kg		103	80 - 120	NaN	30
Naphthalene			20.0	17.7		ug/Kg		89	48 - 130	NaN	30
1,2,4-Trimethylbenzene			20.0	20.3		ug/Kg		101	73 - 120	NaN	30
Isopropylbenzene			20.0	20.7		ug/Kg		103	77 - 120	NaN	30
1,2-Dibromoethane			20.0	20.3		ug/Kg		102	76 - 120	NaN	30
1,2-Dichloroethane			20.0	20.0		ug/Kg		100	71 - 128	NaN	30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-27000/6
Matrix: Solid
Analysis Batch: 27000

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total			60.0	63.1		ug/Kg		105	75 - 120	NaN	30
t-Butyl alcohol			200	204		ug/Kg		102	74 - 121	NaN	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*54 - 135*
4-Bromofluorobenzene (Surr)	*98*		*50 - 131*
Dibromofluoromethane (Surr)	*100*		*50 - 141*
Toluene-d8 (Surr)	*102*		*52 - 141*

Lab Sample ID: LCSD 410-27000/8
Matrix: Solid
Analysis Batch: 27000

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C4-C12-TPH-GRO			1000	1010		ug/Kg		101	75 - 120	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*54 - 135*
4-Bromofluorobenzene (Surr)	*98*		*50 - 131*
Dibromofluoromethane (Surr)	*99*		*50 - 141*
Toluene-d8 (Surr)	*102*		*52 - 141*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-28583/1-A
Matrix: Solid
Analysis Batch: 28766

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 28583

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		17	3.3	ug/Kg		07/31/20 18:30	08/02/20 17:14	1
Benzo[a]anthracene	ND		17	6.7	ug/Kg		07/31/20 18:30	08/02/20 17:14	1
Benzo[a]pyrene	ND		17	3.3	ug/Kg		07/31/20 18:30	08/02/20 17:14	1
Benzo[b]fluoranthene	ND		17	3.3	ug/Kg		07/31/20 18:30	08/02/20 17:14	1
Benzo[g,h,i]perylene	ND		17	3.3	ug/Kg		07/31/20 18:30	08/02/20 17:14	1
Chrysene	ND		17	3.3	ug/Kg		07/31/20 18:30	08/02/20 17:14	1
Fluorene	ND		17	3.3	ug/Kg		07/31/20 18:30	08/02/20 17:14	1
Naphthalene	ND		17	6.7	ug/Kg		07/31/20 18:30	08/02/20 17:14	1
Phenanthrene	ND		17	3.3	ug/Kg		07/31/20 18:30	08/02/20 17:14	1
Pyrene	ND		17	3.3	ug/Kg		07/31/20 18:30	08/02/20 17:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*75*		*34 - 117*	*07/31/20 18:30*	*08/02/20 17:14*	*1*
Nitrobenzene-d5 (Surr)	*79*		*23 - 115*	*07/31/20 18:30*	*08/02/20 17:14*	*1*
p-Terphenyl-d14 (Surr)	*103*		*35 - 135*	*07/31/20 18:30*	*08/02/20 17:14*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-28583/2-A
Matrix: Solid
Analysis Batch: 28766

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 28583

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Anthracene			1670	1640		ug/Kg		98	67 - 120		
Benzo[a]anthracene			1670	1630		ug/Kg		98	68 - 120		
Benzo[a]pyrene			1670	1640		ug/Kg		98	68 - 119		
Benzo[b]fluoranthene			1670	1680		ug/Kg		100	67 - 125		
Benzo[g,h,i]perylene			1670	1730		ug/Kg		104	68 - 125		
Chrysene			1670	1550		ug/Kg		93	66 - 111		
Fluorene			1670	1560		ug/Kg		93	62 - 110		
Naphthalene			1680	1390		ug/Kg		83	49 - 104		
Phenanthrene			1670	1580		ug/Kg		95	67 - 116		
Pyrene			1680	1550		ug/Kg		92	67 - 109		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*83*		*34 - 117*
Nitrobenzene-d5 (Surr)	*89*		*23 - 115*
p-Terphenyl-d14 (Surr)	*107*		*35 - 135*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 410-26312/1-A
Matrix: Solid
Analysis Batch: 33184

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 26312

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		12	5.0	mg/Kg		07/25/20 09:46	08/14/20 12:46	1
>C22-C44 (1C)	ND		12	5.0	mg/Kg		07/25/20 09:46	08/14/20 12:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o- terphenyl (Surr) (1C)	*91*		*42 - 143*	*07/25/20 09:46*	*08/14/20 12:46*	*1*
Chlorobenzene (Surr) (1C)	*78*		*54 - 137*	*07/25/20 09:46*	*08/14/20 12:46*	*1*

Lab Sample ID: LCS 410-26312/2-A
Matrix: Solid
Analysis Batch: 33184

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26312

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
DRO (C10-C28) (1C)			133	103		mg/Kg		77	76 - 117		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o- terphenyl (Surr) (1C)	*103*		*42 - 143*
Chlorobenzene (Surr) (1C)	*81*		*54 - 137*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-24119/1-A
Matrix: Solid
Analysis Batch: 24933

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24119

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5	0.60	mg/Kg		07/20/20 05:17	07/21/20 23:28	1

Lab Sample ID: LCS 410-24119/2-A
Matrix: Solid
Analysis Batch: 24933

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24119

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	3.00	3.11		mg/Kg		104	80 - 120

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8129-1

GC/MS VOA

Prep Batch: 24219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8129-1	CD-6C-S-9.0-20200717	Total/NA	Solid	5035	

Analysis Batch: 27000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8129-1	CD-6C-S-9.0-20200717	Total/NA	Solid	8260C	24219
MB 410-27000/9	Method Blank	Total/NA	Solid	8260C	
LCS 410-27000/7	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 410-27000/6	Lab Control Sample Dup	Total/NA	Solid	8260C	
LCSD 410-27000/8	Lab Control Sample Dup	Total/NA	Solid	8260C	

GC/MS Semi VOA

Prep Batch: 28583

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8129-1	CD-6C-S-9.0-20200717	Total/NA	Solid	3546	
MB 410-28583/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-28583/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 28766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8129-1	CD-6C-S-9.0-20200717	Total/NA	Solid	8270D	28583
MB 410-28583/1-A	Method Blank	Total/NA	Solid	8270D	28583
LCS 410-28583/2-A	Lab Control Sample	Total/NA	Solid	8270D	28583

GC Semi VOA

Prep Batch: 26312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8129-1	CD-6C-S-9.0-20200717	Total/NA	Solid	3546	
MB 410-26312/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-26312/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 31867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8129-1	CD-6C-S-9.0-20200717	Total/NA	Solid	Total TPH	

Analysis Batch: 33184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8129-1	CD-6C-S-9.0-20200717	Total/NA	Solid	8015C	26312
MB 410-26312/1-A	Method Blank	Total/NA	Solid	8015C	26312
LCS 410-26312/2-A	Lab Control Sample	Total/NA	Solid	8015C	26312

Metals

Prep Batch: 24119

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8129-1	CD-6C-S-9.0-20200717	Total/NA	Solid	3050B	
MB 410-24119/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 410-24119/2-A	Lab Control Sample	Total/NA	Solid	3050B	

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8129-1

Metals

Analysis Batch: 24933

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8129-1	CD-6C-S-9.0-20200717	Total/NA	Solid	6010C	24119
MB 410-24119/1-A	Method Blank	Total/NA	Solid	6010C	24119
LCS 410-24119/2-A	Lab Control Sample	Total/NA	Solid	6010C	24119

General Chemistry

Analysis Batch: 23859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8129-1	CD-6C-S-9.0-20200717	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8129-1

Client Sample ID: CD-6C-S-9.0-20200717
Date Collected: 07/17/20 08:10
Date Received: 07/17/20 16:15

Lab Sample ID: 410-8129-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	23859	07/18/20 01:41	PTG7	ELLE

Client Sample ID: CD-6C-S-9.0-20200717
Date Collected: 07/17/20 08:10
Date Received: 07/17/20 16:15

Lab Sample ID: 410-8129-1
Matrix: Solid
Percent Solids: 83.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			24219	07/20/20 08:19	Z8FW	ELLE
Total/NA	Analysis	8260C		1	27000	07/28/20 13:27	R64Z	ELLE
Total/NA	Prep	3546			28583	07/31/20 18:30	QQ3P	ELLE
Total/NA	Analysis	8270D		1	28766	08/02/20 21:14	W6XI	ELLE
Total/NA	Prep	3546			26312	07/25/20 09:46	DN9W	ELLE
Total/NA	Analysis	8015C		1	33184	08/14/20 13:28	KP5X	ELLE
Total/NA	Analysis	Total TPH		1	31867	08/11/20 11:58	KP5X	ELLE
Total/NA	Prep	3050B			24119	07/20/20 05:17	UAMX	ELLE
Total/NA	Analysis	6010C		1	24933	07/22/20 00:30	UCIG	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp. Job ID: 410-8129-1
Project/Site: PHL Penrose Drilling Sampling

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015C	3546	Solid	>C12-C22 (1C)
8015C	3546	Solid	>C22-C44 (1C)
Moisture		Solid	Percent Moisture
Total TPH		Solid	Total Reported TPH

Method Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8129-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	ELLE
Total TPH	Total TPH	None	ELLE
6010C	Metals (ICP)	SW846	ELLE
Moisture	Percent Moisture	EPA	ELLE
3050B	Preparation, Metals	SW846	ELLE
3546	Microwave Extraction	SW846	ELLE
5035	Closed System Purge and Trap	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8129-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-8129-1	CD-6C-S-9.0-20200717	Solid	07/17/20 08:10	07/17/20 16:15	

Environmental Analysis Re ... stody

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Acct. # _____

410-8129 Chain of Custody

I use only

COC #608897

Client Information

Client: Evergreen c/o Stantec	Acct. #: 16657
Project Name/#: PHL Penrose Drilling Sampling	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 2134026052
Sampler: Dane Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Soil ☒ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☐ NPDES ☐ Surface ☐ | Other: _____

Analysis Requested — Preservation and Filtration Codes

For Lab Use Only

FSC: _____

SCR#: _____

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	Custom TPH w/ Ranges (H/O)	TPH-GRO 8260/moisture (H/O)	Metal 6010/Lead (dissolved 6020 / total 6010B) (N)	Sulfide (O)	Chloride/Nitrate Nitrogen Sulfate (O)	Volatile Headspace Hydrocarbons (#)	Total Alkalinity to 4.5	Ammonia Nitrogen (S)	*Short List VOCs 8260 including TBA 8260 + EDB8011 (H/O)	*Short List SVOCs 8270 (H/O)
CD-LC-S-9.0-20200717	7/17/20	0810	X		6	X	X	⊗						X	X

Remarks

*refer to Evergreen Petroleum Short List for list of analytes

⊗ = dissolved Lead 6020 only

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: Andrew.Klingbeil@Stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)

Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13

NYSDEC Category A or B | MA MCP | CT RCP

Relinquished by	Date	Time	Received by	Date	Time
				7.17.20	1048
	7-17.20	1557			
				7-17-20	1605

EDD Required? Yes No

If yes, format: EQUIS

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____

Temperature upon receipt 3.1 °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT https://www.eurofinsus.com/coc

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0919

CJ

KAM

Login Sample Receipt Checklist

Client: Stantec Consulting Corp. Job Number: 410-8129-1

Login Number: 8129 **List Source: Eurofins Lancaster Laboratories Env**
List Number: 1
Creator: Jeremiah, Cory T

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-8309-1
Client Project/Site: PHL Penrose Drilling Sampling

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Andrew Klingbeil

Authorized for release by:
8/30/2020 4:38:40 PM
Hannah Cottman, Operations Support Specialist
(717)556-7383
hannahcottman@eurofinsus.com

Designee for

Amek Carter, Project Manager
(717)556-7252
amekcarter@eurofinsus.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments. QC data that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result. Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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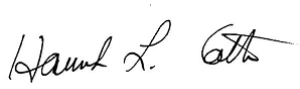

Hannah Cottman
Operations Support Specialist
8/30/2020 4:38:40 PM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 6
Detection Summary 8
Client Sample Results 10
Surrogate Summary 15
QC Sample Results 17
QC Association Summary 29
Lab Chronicle 34
Certification Summary 36
Method Summary 37
Sample Summary 38
Chain of Custody 39
Receipt Checklists 41

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8309-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
XL	Surrogate recovery is below control limits

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
H3	Sample was received and analyzed past holding time.
XH	Surrogate recovery is above control limits
XL	Surrogate recovery is below control limits

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
FL	MS and/or MSD recovery below control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-8309-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-8309-1

Comments
No additional comments.

Receipt
The samples were received on 7/21/2020 4:22 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.8º C and 1.2º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: Surrogate recovery for the following sample was outside control limits: CD-6C-W-40.0-20200721 (410-8309-2). Re-extraction and/or re-analysis was performed and surrogate recovery was outside control limits. The data is reported from the initial extraction.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA
Method 8015C: Chlorobenzene surrogate recovery for the following sample was outside control limits: CD-6C-W-40.0-20200721 (410-8309-2). Evidence of matrix interference is present; therefore, re-extraction was not performed.

Method 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: CD-6C-W-19.0-20200720 (410-8309-1) and CD-6C-W-40.0-20200721 (410-8309-2). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method Filtration: The following samples were not filtered within 15 minutes of sample collection as required by the method: CD-6C-W-19.0-20200720 (410-8309-1) and CD-6C-W-40.0-20200721 (410-8309-2). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
Method SM 4500 S2 D: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for analytical batch 410-26015 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method 3510C: The following sample was prepared one day outside of preparation holding time for method 3510C due to laboratory error : CD-6C-W-19.0-20200720 (410-8309-1).

Job ID: 410-8309-1 (Continued)

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Conti

Method 8011: The following sample was prepared outside of preparation holding time for method 8011_Prep/8011 due to a scheduling error : TB-20200721 (410-8309-3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8309-1

Client Sample ID: CD-6C-W-19.0-20200720 — Lab Sample ID: 410-8309-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	710		25	5.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	280		25	1.5	ug/L	5		8260C/UST	Total/NA
Benzene	780		5.0	1.0	ug/L	5		8260C/UST	Total/NA
C4-C12-TPH-GRO	22000		250	150	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	20	J	25	1.0	ug/L	5		8260C/UST	Total/NA
Methyl tertiary butyl ether	4.2	J	5.0	1.0	ug/L	5		8260C/UST	Total/NA
Toluene	72		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Ethylbenzene - DL	1000		50	20	ug/L	50		8260C/UST	Total/NA
Xylenes, Total - DL	2400		300	70	ug/L	50		8260C/UST	Total/NA
Fluorene	0.21	J	0.50	0.10	ug/L	1		8270D	Total/NA
Phenanthrene	0.27	J	0.50	0.10	ug/L	1		8270D	Total/NA
Naphthalene - DL	140		2.5	0.50	ug/L	5		8270D	Total/NA
Ethane (1C)	1.0	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	15000		500	300	ug/L	100		RSK-175	Total/NA
>C12-C22 (1C)	1.2	H	0.095	0.035	mg/L	1		8015C	Total/NA
>C22-C44 (1C)	0.16	H	0.095	0.035	mg/L	1		8015C	Total/NA
Total Reported TPH	1.4		0.20	0.074	mg/L	1		Total TPH	Total/NA
Chloride	260		0.60	0.070	mg/L	5		300.0	Total/NA
Sulfate	32		3.0	1.7	mg/L	5		300.0	Total/NA
Nitrogen, Nitrate	0.27	J	0.50	0.25	mg/L	5		EPA 300.0 R2.1	Total/NA
Calcium	43		0.20	0.096	mg/L	1		6010C	Total Recoverable
Iron	14		0.20	0.040	mg/L	1		6010C	Total Recoverable
Magnesium	25		0.10	0.040	mg/L	1		6010C	Total Recoverable
Potassium	7.8		0.50	0.20	mg/L	1		6010C	Total Recoverable
Sodium	110		1.0	0.24	mg/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	310		8.0	8.0	mg/L	1		2320B-2011	Total/NA

Client Sample ID: CD-6C-W-40.0-20200721 — Lab Sample ID: 410-8309-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	390		25	5.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	130		25	1.5	ug/L	5		8260C/UST	Total/NA
Benzene	360		5.0	1.0	ug/L	5		8260C/UST	Total/NA
C4-C12-TPH-GRO	12000		250	150	ug/L	5		8260C/UST	Total/NA
Ethylbenzene	180		5.0	2.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	11	J	25	1.0	ug/L	5		8260C/UST	Total/NA
Methyl tertiary butyl ether	11		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Toluene	350		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	1000		30	7.0	ug/L	5		8260C/UST	Total/NA
Fluorene	0.13	J	0.50	0.10	ug/L	1		8270D	Total/NA
Naphthalene	39		0.50	0.10	ug/L	1		8270D	Total/NA
Phenanthrene	0.11	J	0.50	0.10	ug/L	1		8270D	Total/NA
Ethane (1C)	2.0	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	7200		250	150	ug/L	50		RSK-175	Total/NA
>C12-C22 (1C)	0.92		0.19	0.071	mg/L	1		8015C	Total/NA
>C22-C44 (1C)	0.43		0.19	0.071	mg/L	1		8015C	Total/NA
Total Reported TPH	1.4		0.20	0.074	mg/L	1		Total TPH	Total/NA
Chloride	800		2.4	0.28	mg/L	20		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CD-6C-W-40.0-20200721 (Continued) — Lab Sample ID: 410-8309-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	23		3.0	1.7	mg/L	5		300.0	Total/NA
Calcium	84		0.20	0.096	mg/L	1		6010C	Total Recoverable
Iron	37		0.20	0.040	mg/L	1		6010C	Total Recoverable
Magnesium	35		0.10	0.040	mg/L	1		6010C	Total Recoverable
Potassium	8.4		0.50	0.20	mg/L	1		6010C	Total Recoverable
Sodium	500		5.0	1.2	mg/L	5		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	390		8.0	8.0	mg/L	1		2320B-2011	Total/NA

Client Sample ID: TB-20200721 — Lab Sample ID: 410-8309-3

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: CD-6C-W-19.0-20200720

Date Collected: 07/20/20 15:30
Date Received: 07/21/20 16:52

Lab Sample ID: 410-8309-1

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**710**		25	5.0	ug/L			07/27/20 13:01	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			07/27/20 13:01	5
1,3,5-Trimethylbenzene	**280**		25	1.5	ug/L			07/27/20 13:01	5
Benzene	**780**		5.0	1.0	ug/L			07/27/20 13:01	5
C4-C12-TPH-GRO	**22000**		250	150	ug/L			07/27/20 13:01	5
Isopropylbenzene	**20**	**J**	25	1.0	ug/L			07/27/20 13:01	5
Methyl tertiary butyl ether	**4.2**	**J**	5.0	1.0	ug/L			07/27/20 13:01	5
Toluene	**72**		5.0	1.0	ug/L			07/27/20 13:01	5
2-Methyl-2-propanol	ND		250	60	ug/L			07/27/20 13:01	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*		*07/27/20 13:01*	*5*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*07/27/20 13:01*	*5*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*07/27/20 13:01*	*5*
Toluene-d8 (Surr)	*93*		*80 - 120*		*07/27/20 13:01*	*5*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**1000**		50	20	ug/L			07/29/20 14:19	50
Xylenes, Total	**2400**		300	70	ug/L			07/29/20 14:19	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*80 - 120*		*07/29/20 14:19*	*50*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*07/29/20 14:19*	*50*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*07/29/20 14:19*	*50*
Toluene-d8 (Surr)	*100*		*80 - 120*		*07/29/20 14:19*	*50*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		07/24/20 08:55	07/28/20 10:22	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		07/24/20 08:55	07/28/20 10:22	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		07/24/20 08:55	07/28/20 10:22	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		07/24/20 08:55	07/28/20 10:22	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		07/24/20 08:55	07/28/20 10:22	1
Chrysene	ND		0.50	0.10	ug/L		07/24/20 08:55	07/28/20 10:22	1
Fluorene	**0.21**	**J**	0.50	0.10	ug/L		07/24/20 08:55	07/28/20 10:22	1
Phenanthrene	**0.27**	**J**	0.50	0.10	ug/L		07/24/20 08:55	07/28/20 10:22	1
Pyrene	ND		0.50	0.10	ug/L		07/24/20 08:55	07/28/20 10:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*71*		*44 - 102*	*07/24/20 08:55*	*07/28/20 10:22*	*1*
Nitrobenzene-d5 (Surr)	*75*		*38 - 113*	*07/24/20 08:55*	*07/28/20 10:22*	*1*
p-Terphenyl-d14 (Surr)	*52*		*34 - 128*	*07/24/20 08:55*	*07/28/20 10:22*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**140**		2.5	0.50	ug/L		07/24/20 08:55	07/28/20 12:19	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*79*		*44 - 102*	*07/24/20 08:55*	*07/28/20 12:19*	*5*
Nitrobenzene-d5 (Surr)	*82*		*38 - 113*	*07/24/20 08:55*	*07/28/20 12:19*	*5*

Client Sample ID: CD-6C-W-19.0-20200720

Date Collected: 07/20/20 15:30
Date Received: 07/21/20 16:52

Lab Sample ID: 410-8309-1

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl-d14 (Surr)	*57*		*34 - 128*	*07/24/20 08:55*	*07/28/20 12:19*	*5*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**1.0**	**J**	5.0	1.0	ug/L		07/22/20 08:48	07/22/20 14:07	1
Ethene (1C)	ND		5.0	1.0	ug/L		07/22/20 08:48	07/22/20 14:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Propene (1C)	*69*		*28 - 140*	*07/22/20 08:48*	*07/22/20 14:07*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**15000**		500	300	ug/L		07/23/20 09:34	07/23/20 11:41	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Propene (1C)	*75*		*28 - 140*	*07/23/20 09:34*	*07/23/20 11:41*	*100*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (2C)	ND		0.029	0.0095	ug/L		07/25/20 08:02	07/25/20 20:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane (Surr) (2C)	*72*		*46 - 136*	*07/25/20 08:02*	*07/25/20 20:52*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	**1.2**	**H**	0.095	0.035	mg/L		07/28/20 20:31	07/31/20 18:23	1
>C22-C44 (1C)	**0.16**	**H**	0.095	0.035	mg/L		07/28/20 20:31	07/31/20 18:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o- terphenyl (Surr) (1C)	*36*	*XL*	*51 - 126*	*07/28/20 20:31*	*07/31/20 18:23*	*1*
Chlorobenzene (Surr) (1C)	*78*		*21 - 116*	*07/28/20 20:31*	*07/31/20 18:23*	*1*

Method: Total TPH - Total TPH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Reported TPH	**1.4**		0.20	0.074	mg/L			08/11/20 11:58	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**260**		0.60	0.070	mg/L			07/31/20 03:55	5
Sulfate	**32**		3.0	1.7	mg/L			07/31/20 03:55	5

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	**0.27**	**J**	0.50	0.25	mg/L			07/22/20 08:29	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**43**		0.20	0.096	mg/L		07/22/20 02:59	07/27/20 16:29	1
Iron	**14**		0.20	0.040	mg/L		07/22/20 02:59	07/27/20 16:29	1
Magnesium	**25**		0.10	0.040	mg/L		07/22/20 02:59	07/27/20 16:29	1
Potassium	**7.8**		0.50	0.20	mg/L		07/22/20 02:59	07/27/20 16:29	1

Client Sample ID: CD-6C-W-19.0-20200720

Lab Sample ID: 410-8309-1

Date Collected: 07/20/20 15:30

Matrix: Water

Date Received: 07/21/20 16:52

Method: 6010C - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	**110**		1.0	0.24	mg/L		07/22/20 02:59	07/27/20 16:29	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		07/23/20 04:59	07/23/20 13:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**310**		8.0	8.0	mg/L			07/22/20 21:10	1
Ammonia-N	ND		1.5	0.50	mg/L		07/30/20 09:08	07/30/20 12:02	1
Sulfide	ND	FL	0.30	0.10	mg/L			07/24/20 10:41	1

Client Sample ID: CD-6C-W-40.0-20200721

Lab Sample ID: 410-8309-2

Date Collected: 07/21/20 11:45

Matrix: Water

Date Received: 07/21/20 16:52

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**390**		25	5.0	ug/L			07/27/20 13:25	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			07/27/20 13:25	5
1,3,5-Trimethylbenzene	**130**		25	1.5	ug/L			07/27/20 13:25	5
Benzene	**360**		5.0	1.0	ug/L			07/27/20 13:25	5
C4-C12-TPH-GRO	**12000**		250	150	ug/L			07/27/20 13:25	5
Ethylbenzene	**180**		5.0	2.0	ug/L			07/27/20 13:25	5
Isopropylbenzene	**11**	**J**	25	1.0	ug/L			07/27/20 13:25	5
Methyl tertiary butyl ether	**11**		5.0	1.0	ug/L			07/27/20 13:25	5
Toluene	**350**		5.0	1.0	ug/L			07/27/20 13:25	5
Xylenes, Total	**1000**		30	7.0	ug/L			07/27/20 13:25	5
2-Methyl-2-propanol	ND		250	60	ug/L			07/27/20 13:25	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*80 - 120*		*07/27/20 13:25*	*5*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*07/27/20 13:25*	*5*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*07/27/20 13:25*	*5*
Toluene-d8 (Surr)	*93*		*80 - 120*		*07/27/20 13:25*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		07/24/20 08:55	07/28/20 10:51	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		07/24/20 08:55	07/28/20 10:51	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		07/24/20 08:55	07/28/20 10:51	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		07/24/20 08:55	07/28/20 10:51	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		07/24/20 08:55	07/28/20 10:51	1
Chrysene	ND		0.50	0.10	ug/L		07/24/20 08:55	07/28/20 10:51	1
Fluorene	**0.13**	**J**	0.50	0.10	ug/L		07/24/20 08:55	07/28/20 10:51	1
Naphthalene	**39**		0.50	0.10	ug/L		07/24/20 08:55	07/28/20 10:51	1
Phenanthrene	**0.11**	**J**	0.50	0.10	ug/L		07/24/20 08:55	07/28/20 10:51	1
Pyrene	ND		0.50	0.10	ug/L		07/24/20 08:55	07/28/20 10:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*67*		*44 - 102*	*07/24/20 08:55*	*07/28/20 10:51*	*1*

Client Sample ID: CD-6C-W-40.0-20200721

Date Collected: 07/21/20 11:45
Date Received: 07/21/20 16:52

Lab Sample ID: 410-8309-2

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	*28*	*XL*	*38 - 113*	*07/24/20 08:55*	*07/28/20 10:51*	*1*
p-Terphenyl-d14 (Surr)	*80*		*34 - 128*	*07/24/20 08:55*	*07/28/20 10:51*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**2.0**	**J**	5.0	1.0	ug/L		07/22/20 08:48	07/22/20 14:25	1
Ethene (1C)	ND		5.0	1.0	ug/L		07/22/20 08:48	07/22/20 14:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Propene (1C)	*78*		*28 - 140*	*07/22/20 08:48*	*07/22/20 14:25*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**7200**		250	150	ug/L		07/23/20 09:34	07/23/20 11:59	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Propene (1C)	*76*		*28 - 140*	*07/23/20 09:34*	*07/23/20 11:59*	*50*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0097	ug/L		07/25/20 08:02	07/25/20 21:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane (Surr) (2C)	*79*		*46 - 136*	*07/25/20 08:02*	*07/25/20 21:08*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	**0.92**		0.19	0.071	mg/L		07/27/20 20:09	08/14/20 12:25	1
>C22-C44 (1C)	**0.43**		0.19	0.071	mg/L		07/27/20 20:09	08/14/20 12:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o- terphenyl (Surr) (1C)	*54*		*51 - 126*	*07/27/20 20:09*	*08/14/20 12:25*	*1*
Chlorobenzene (Surr) (1C)	*130*	*XH*	*21 - 116*	*07/27/20 20:09*	*08/14/20 12:25*	*1*

Method: Total TPH - Total TPH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Reported TPH	**1.4**		0.20	0.074	mg/L			08/11/20 11:58	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**800**		2.4	0.28	mg/L			07/31/20 11:18	20
Sulfate	**23**		3.0	1.7	mg/L			07/31/20 03:40	5

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND		0.50	0.25	mg/L			07/22/20 09:20	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**84**		0.20	0.096	mg/L		07/22/20 02:59	07/27/20 16:32	1
Iron	**37**		0.20	0.040	mg/L		07/22/20 02:59	07/27/20 16:32	1
Magnesium	**35**		0.10	0.040	mg/L		07/22/20 02:59	07/27/20 16:32	1

Client Sample ID: CD-6C-W-40.0-20200721

Lab Sample ID: 410-8309-2

Date Collected: 07/21/20 11:45

Matrix: Water

Date Received: 07/21/20 16:52

Method: 6010C - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	**8.4**		0.50	0.20	mg/L		07/22/20 02:59	07/27/20 16:32	1
Sodium	**500**		5.0	1.2	mg/L		07/22/20 02:59	07/27/20 17:18	5

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		07/23/20 04:59	07/23/20 13:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**390**		8.0	8.0	mg/L			07/22/20 21:24	1
Ammonia-N	ND		1.5	0.50	mg/L		07/30/20 09:08	07/30/20 12:02	1
Sulfide	ND		0.30	0.10	mg/L			07/24/20 10:41	1

Client Sample ID: TB-20200721

Lab Sample ID: 410-8309-3

Date Collected: 06/17/20 00:00

Matrix: Water

Date Received: 07/21/20 16:52

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			07/27/20 13:49	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			07/27/20 13:49	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			07/27/20 13:49	1
Benzene	ND		1.0	0.20	ug/L			07/27/20 13:49	1
C4-C12-TPH-GRO	ND		50	29	ug/L			07/27/20 13:49	1
Ethylbenzene	ND		1.0	0.40	ug/L			07/27/20 13:49	1
Isopropylbenzene	ND		5.0	0.20	ug/L			07/27/20 13:49	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			07/27/20 13:49	1
Toluene	ND		1.0	0.20	ug/L			07/27/20 13:49	1
Xylenes, Total	ND		6.0	1.4	ug/L			07/27/20 13:49	1
2-Methyl-2-propanol	ND		50	12	ug/L			07/27/20 13:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*		*07/27/20 13:49*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*07/27/20 13:49*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 120*		*07/27/20 13:49*	*1*
Toluene-d8 (Surr)	*91*		*80 - 120*		*07/27/20 13:49*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND	H H3	0.029	0.0096	ug/L		08/11/20 12:00	08/11/20 23:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*55*		*46 - 136*	*08/11/20 12:00*	*08/11/20 23:22*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*59*		*46 - 136*	*08/11/20 12:00*	*08/11/20 23:22*	*1*

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8309-1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-8309-1	CD-6C-W-19.0-20200720	88	97	103	93
410-8309-1 - DL	CD-6C-W-19.0-20200720	94	96	97	100
410-8309-2	CD-6C-W-40.0-20200721	86	98	104	93
410-8309-3	TB-20200721	90	95	106	91
LCS 410-26573/6	Lab Control Sample	91	98	105	92
LCS 410-26573/8	Lab Control Sample	88	100	103	93
LCS 410-27428/4	Lab Control Sample	97	98	98	100
LCSD 410-26573/7	Lab Control Sample Dup	93	96	106	91
LCSD 410-26573/9	Lab Control Sample Dup	88	99	103	94
LCSD 410-27428/5	Lab Control Sample Dup	97	97	97	99
MB 410-26573/5	Method Blank	89	95	105	91
MB 410-27428/6	Method Blank	94	95	97	99

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(44-102)	(38-113)	(34-128)
410-8309-1 - DL	CD-6C-W-19.0-20200720	79	82	57
410-8309-1	CD-6C-W-19.0-20200720	71	75	52
410-8309-2	CD-6C-W-40.0-20200721	67	28 XL	80

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
		Propene1
Lab Sample ID	Client Sample ID	(28-140)
410-8309-1	CD-6C-W-19.0-20200720	69
410-8309-1 - DL	CD-6C-W-19.0-20200720	75
410-8309-2	CD-6C-W-40.0-20200721	78
410-8309-2 - DL	CD-6C-W-40.0-20200721	76
LCS 410-25069/2-A	Lab Control Sample	98
LCS 410-25535/2-A	Lab Control Sample	95
LCSD 410-25069/3-A	Lab Control Sample Dup	96
LCSD 410-25535/3-A	Lab Control Sample Dup	97
MB 410-25069/1-A	Method Blank	95
MB 410-25535/1-A	Method Blank	95

Surrogate Legend

Surrogate Summary

Client: Stantec Consulting Corp.
Job ID: 410-8309-1
Project/Site: PHL Penrose Drilling Sampling

Propene = Propene

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1122TCA1	1122TCA2
Lab Sample ID	Client Sample ID	(46-136)	(46-136)
410-8309-1	CD-6C-W-19.0-20200720		72
410-8309-2	CD-6C-W-40.0-20200721		79
410-8309-3	TB-20200721	55	59
LCS 410-26282/2-A	Lab Control Sample		65
LCS 410-31854/2-A	Lab Control Sample	58	57
LCSD 410-26282/3-A	Lab Control Sample Dup		71
LCSD 410-31854/3-A	Lab Control Sample Dup	51	58
MB 410-26282/1-A	Method Blank		66
MB 410-31854/1-A	Method Blank	60	59

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		OTP1	CBNZ1
Lab Sample ID	Client Sample ID	(51-126)	(21-116)
410-8309-1	CD-6C-W-19.0-20200720	36 XL	78
410-8309-2	CD-6C-W-40.0-20200721	54	130 XH
LCS 410-26871/2-A	Lab Control Sample	91	75
LCS 410-27308/2-A	Lab Control Sample	91	69
LCSD 410-26871/3-A	Lab Control Sample Dup	101	77
LCSD 410-27308/3-A	Lab Control Sample Dup	85	64
MB 410-26871/1-A	Method Blank	85	71
MB 410-27308/1-A	Method Blank	82	67

Surrogate Legend

OTP = o- terphenyl (Surr)

CBNZ = Chlorobenzene (Surr)

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-26573/5
Matrix: Water
Analysis Batch: 26573

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			07/27/20 10:06	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			07/27/20 10:06	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			07/27/20 10:06	1
Benzene	ND		1.0	0.20	ug/L			07/27/20 10:06	1
C4-C12-TPH-GRO	ND		50	29	ug/L			07/27/20 10:06	1
Ethylbenzene	ND		1.0	0.40	ug/L			07/27/20 10:06	1
Isopropylbenzene	ND		5.0	0.20	ug/L			07/27/20 10:06	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			07/27/20 10:06	1
Toluene	ND		1.0	0.20	ug/L			07/27/20 10:06	1
Xylenes, Total	ND		6.0	1.4	ug/L			07/27/20 10:06	1
2-Methyl-2-propanol	ND		50	12	ug/L			07/27/20 10:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*89*		*80 - 120*		*07/27/20 10:06*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*07/27/20 10:06*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 120*		*07/27/20 10:06*	*1*
Toluene-d8 (Surr)	*91*		*80 - 120*		*07/27/20 10:06*	*1*

Lab Sample ID: LCS 410-26573/6
Matrix: Water
Analysis Batch: 26573

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	20.0	16.6		ug/L		83	75 - 120
1,2-Dichloroethane	20.0	19.0		ug/L		95	73 - 124
1,3,5-Trimethylbenzene	20.0	16.3		ug/L		81	75 - 120
Benzene	20.0	20.0		ug/L		100	80 - 120
Ethylbenzene	20.0	17.6		ug/L		88	80 - 120
Isopropylbenzene	20.0	17.6		ug/L		88	80 - 120
Methyl tertiary butyl ether	20.0	18.5		ug/L		93	69 - 122
Naphthalene	20.0	14.4		ug/L		72	53 - 124
Toluene	20.0	17.9		ug/L		89	80 - 120
Xylenes, Total	60.0	53.2		ug/L		89	80 - 120
2-Methyl-2-propanol	200	163		ug/L		81	60 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*91*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*105*		*80 - 120*
Toluene-d8 (Surr)	*92*		*80 - 120*

Lab Sample ID: LCS 410-26573/8
Matrix: Water
Analysis Batch: 26573

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C4-C12-TPH-GRO	1000	981		ug/L		98	67 - 120

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-26573/8
Matrix: Water
Analysis Batch: 26573

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*80 - 120*
Toluene-d8 (Surr)	*93*		*80 - 120*

Lab Sample ID: LCSD 410-26573/7
Matrix: Water
Analysis Batch: 26573

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene			20.0	17.7		ug/L		88	75 - 120	6	30
1,2-Dichloroethane			20.0	19.4		ug/L		97	73 - 124	2	30
1,3,5-Trimethylbenzene			20.0	17.5		ug/L		88	75 - 120	7	30
Benzene			20.0	20.7		ug/L		103	80 - 120	3	30
Ethylbenzene			20.0	18.2		ug/L		91	80 - 120	3	30
Isopropylbenzene			20.0	18.1		ug/L		90	80 - 120	3	30
Methyl tertiary butyl ether			20.0	18.3		ug/L		92	69 - 122	1	30
Naphthalene			20.0	15.1		ug/L		75	53 - 124	5	30
Toluene			20.0	18.4		ug/L		92	80 - 120	3	30
Xylenes, Total			60.0	55.0		ug/L		92	80 - 120	3	30
2-Methyl-2-propanol			200	173		ug/L		86	60 - 130	6	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*93*		*80 - 120*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*106*		*80 - 120*
Toluene-d8 (Surr)	*91*		*80 - 120*

Lab Sample ID: LCSD 410-26573/9
Matrix: Water
Analysis Batch: 26573

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C4-C12-TPH-GRO			1000	1020		ug/L		102	67 - 120	4	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*80 - 120*
Toluene-d8 (Surr)	*94*		*80 - 120*

Lab Sample ID: MB 410-27428/6
Matrix: Water
Analysis Batch: 27428

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			07/29/20 09:33	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			07/29/20 09:33	1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-27428/6
Matrix: Water
Analysis Batch: 27428

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			07/29/20 09:33	1
Benzene	ND		1.0	0.20	ug/L			07/29/20 09:33	1
C4-C12-TPH-GRO	ND		50	29	ug/L			07/29/20 09:33	1
Ethylbenzene	ND		1.0	0.40	ug/L			07/29/20 09:33	1
Isopropylbenzene	ND		5.0	0.20	ug/L			07/29/20 09:33	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			07/29/20 09:33	1
Toluene	ND		1.0	0.20	ug/L			07/29/20 09:33	1
Xylenes, Total	ND		6.0	1.4	ug/L			07/29/20 09:33	1
2-Methyl-2-propanol	ND		50	12	ug/L			07/29/20 09:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*80 - 120*		*07/29/20 09:33*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*07/29/20 09:33*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*07/29/20 09:33*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*07/29/20 09:33*	*1*

Lab Sample ID: LCS 410-27428/4
Matrix: Water
Analysis Batch: 27428

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2,4-Trimethylbenzene			20.0	17.7		ug/L		89	75 - 120		
1,2-Dichloroethane			20.0	17.5		ug/L		87	73 - 124		
1,3,5-Trimethylbenzene			20.0	17.5		ug/L		87	75 - 120		
Benzene			20.0	18.0		ug/L		90	80 - 120		
Ethylbenzene			20.0	17.9		ug/L		89	80 - 120		
Isopropylbenzene			20.0	17.5		ug/L		87	80 - 120		
Methyl tertiary butyl ether			20.0	17.9		ug/L		90	69 - 122		
Naphthalene			20.0	16.4		ug/L		82	53 - 124		
Toluene			20.0	18.0		ug/L		90	80 - 120		
Xylenes, Total			60.0	54.2		ug/L		90	80 - 120		
2-Methyl-2-propanol			200	178		ug/L		89	60 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*98*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Lab Sample ID: LCSD 410-27428/5
Matrix: Water
Analysis Batch: 27428

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene			20.0	18.4		ug/L		92	75 - 120	4	30
1,2-Dichloroethane			20.0	17.8		ug/L		89	73 - 124	2	30
1,3,5-Trimethylbenzene			20.0	17.9		ug/L		90	75 - 120	2	30
Benzene			20.0	18.1		ug/L		91	80 - 120	1	30

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-27428/5
Matrix: Water
Analysis Batch: 27428

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene			20.0	18.2		ug/L		91	80 - 120	2	30
Isopropylbenzene			20.0	18.1		ug/L		91	80 - 120	4	30
Methyl tertiary butyl ether			20.0	18.8		ug/L		94	69 - 122	5	30
Naphthalene			20.0	16.8		ug/L		84	53 - 124	2	30
Toluene			20.0	18.4		ug/L		92	80 - 120	2	30
Xylenes, Total			60.0	55.4		ug/L		92	80 - 120	2	30
2-Methyl-2-propanol			200	185		ug/L		93	60 - 130	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*80 - 120*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Dibromofluoromethane (Surr)	*97*		*80 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-25069/1-A
Matrix: Water
Analysis Batch: 25076

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25069

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		07/22/20 08:48	07/22/20 09:55	1
Ethene (1C)	ND		5.0	1.0	ug/L		07/22/20 08:48	07/22/20 09:55	1
Methane (1C)	ND		5.0	3.0	ug/L		07/22/20 08:48	07/22/20 09:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*95*		*28 - 140*	*07/22/20 08:48*	*07/22/20 09:55*	*1*

Lab Sample ID: LCS 410-25069/2-A
Matrix: Water
Analysis Batch: 25076

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25069

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethane (1C)			59.4	56.5		ug/L		95	85 - 115
Ethene (1C)			60.4	59.0		ug/L		98	83 - 115
Methane (1C)			59.4	60.9		ug/L		102	85 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*98*		*28 - 140*

Lab Sample ID: LCSD 410-25069/3-A
Matrix: Water
Analysis Batch: 25076

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 25069

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	56.2		ug/L		95	85 - 115	0	20
Ethene (1C)			60.4	58.6		ug/L		97	83 - 115	1	20
Methane (1C)			59.4	60.6		ug/L		102	85 - 115	0	20

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCSD 410-25069/3-A
Matrix: Water
Analysis Batch: 25076

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 25069

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Propene (1C)	96		28 - 140

Lab Sample ID: MB 410-25535/1-A
Matrix: Water
Analysis Batch: 25544

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25535

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		07/23/20 09:34	07/23/20 10:46	1
Ethene (1C)	ND		5.0	1.0	ug/L		07/23/20 09:34	07/23/20 10:46	1
Methane (1C)	ND		5.0	3.0	ug/L		07/23/20 09:34	07/23/20 10:46	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Propene (1C)	95		28 - 140	07/23/20 09:34	07/23/20 10:46	1

Lab Sample ID: LCS 410-25535/2-A
Matrix: Water
Analysis Batch: 25544

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25535

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethane (1C)	59.4	57.2		ug/L		96	85 - 115
Ethene (1C)	60.4	59.4		ug/L		98	83 - 115
Methane (1C)	59.4	60.0		ug/L		101	85 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Propene (1C)	95		28 - 140

Lab Sample ID: LCSD 410-25535/3-A
Matrix: Water
Analysis Batch: 25544

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 25535

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)	59.4	57.8		ug/L		97	85 - 115	1	20
Ethene (1C)	60.4	59.9		ug/L		99	83 - 115	1	20
Methane (1C)	59.4	60.9		ug/L		102	85 - 115	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Propene (1C)	97		28 - 140

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-26282/1-A
Matrix: Water
Analysis Batch: 26356

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 26282

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		07/25/20 08:02	07/25/20 20:01	1

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: MB 410-26282/1-A
Matrix: Water
Analysis Batch: 26356

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 26282

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane (Surr) (2C)	66		46 - 136	07/25/20 08:02	07/25/20 20:01	1

Lab Sample ID: LCS 410-26282/2-A
Matrix: Water
Analysis Batch: 26356

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26282

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.0957		ug/L		75	60 - 140		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,1,2,2-Tetrachloroethane (Surr) (2C)	65		46 - 136

Lab Sample ID: LCSD 410-26282/3-A
Matrix: Water
Analysis Batch: 26356

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 26282

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.104		ug/L		81	60 - 140	8	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,1,2,2-Tetrachloroethane (Surr) (2C)	71		46 - 136

Lab Sample ID: MB 410-31854/1-A
Matrix: Water
Analysis Batch: 32084

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 31854

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		08/11/20 12:00	08/11/20 22:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane (Surr) (1C)	60		46 - 136	08/11/20 12:00	08/11/20 22:14	1
1,1,2,2-Tetrachloroethane (Surr) (2C)	59		46 - 136	08/11/20 12:00	08/11/20 22:14	1

Lab Sample ID: LCS 410-31854/2-A
Matrix: Water
Analysis Batch: 32084

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31854

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.171		ug/L		133	60 - 140		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,1,2,2-Tetrachloroethane (Surr) (1C)	58		46 - 136
1,1,2,2-Tetrachloroethane (Surr) (2C)	57		46 - 136

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: LCSD 410-31854/3-A
Matrix: Water
Analysis Batch: 32084

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 31854

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.176		ug/L		138	60 - 140	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*51*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*58*		*46 - 136*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 410-26871/1-A
Matrix: Water
Analysis Batch: 33184

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 26871

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		0.20	0.074	mg/L		07/27/20 20:09	08/14/20 11:21	1
>C22-C44 (1C)	ND		0.20	0.074	mg/L		07/27/20 20:09	08/14/20 11:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o- terphenyl (Surr) (1C)	*85*		*51 - 126*	*07/27/20 20:09*	*08/14/20 11:21*	*1*
Chlorobenzene (Surr) (1C)	*71*		*21 - 116*	*07/27/20 20:09*	*08/14/20 11:21*	*1*

Lab Sample ID: LCS 410-26871/2-A
Matrix: Water
Analysis Batch: 33184

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26871

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (C10-C28) (1C)			1.60	1.03		mg/L		64	48 - 116

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o- terphenyl (Surr) (1C)	*91*		*51 - 126*
Chlorobenzene (Surr) (1C)	*75*		*21 - 116*

Lab Sample ID: LCSD 410-26871/3-A
Matrix: Water
Analysis Batch: 33184

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 26871

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (C10-C28) (1C)			1.60	1.14		mg/L		71	48 - 116	10	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o- terphenyl (Surr) (1C)	*101*		*51 - 126*
Chlorobenzene (Surr) (1C)	*77*		*21 - 116*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: MB 410-27308/1-A
Matrix: Water
Analysis Batch: 29384

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27308

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		0.10	0.037	mg/L		07/28/20 20:31	07/31/20 17:19	1
>C22-C44 (1C)	ND		0.10	0.037	mg/L		07/28/20 20:31	07/31/20 17:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o- terphenyl (Surr) (1C)	*82*		*51 - 126*	*07/28/20 20:31*	*07/31/20 17:19*	*1*
Chlorobenzene (Surr) (1C)	*67*		*21 - 116*	*07/28/20 20:31*	*07/31/20 17:19*	*1*

Lab Sample ID: LCS 410-27308/2-A
Matrix: Water
Analysis Batch: 29384

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27308

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
DRO (C10-C28) (1C)			0.800	0.528		mg/L		66	48 - 116		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o- terphenyl (Surr) (1C)	*91*		*51 - 126*
Chlorobenzene (Surr) (1C)	*69*		*21 - 116*

Lab Sample ID: LCSD 410-27308/3-A
Matrix: Water
Analysis Batch: 29384

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 27308

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (C10-C28) (1C)			0.800	0.534		mg/L		67	48 - 116	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o- terphenyl (Surr) (1C)	*85*		*51 - 126*
Chlorobenzene (Surr) (1C)	*64*		*21 - 116*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 460-713029/3
Matrix: Water
Analysis Batch: 713029

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.12	0.014	mg/L			07/31/20 01:40	1
Sulfate	ND		0.60	0.35	mg/L			07/31/20 01:40	1

Lab Sample ID: LCS 460-713029/5
Matrix: Water
Analysis Batch: 713029

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			3.20	3.10		mg/L		97	90 - 110		
Sulfate			4.80	4.62		mg/L		96	90 - 110		

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 460-713029/6
Matrix: Water
Analysis Batch: 713029

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			3.20	3.09		mg/L		97	90 - 110	0	15
Sulfate			4.80	4.60		mg/L		96	90 - 110	0	15

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Lab Sample ID: MB 410-24791/4
Matrix: Water
Analysis Batch: 24791

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND		0.10	0.050	mg/L			07/21/20 21:41	1

Lab Sample ID: MB 410-24791/44
Matrix: Water
Analysis Batch: 24791

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND		0.10	0.050	mg/L			07/22/20 09:03	1

Lab Sample ID: LCS 410-24791/43
Matrix: Water
Analysis Batch: 24791

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrogen, Nitrate			0.750	0.735		mg/L		98	90 - 110		

Lab Sample ID: 410-8309-2 DU
Matrix: Water
Analysis Batch: 24791

Client Sample ID: CD-6C-W-40.0-20200721
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Nitrogen, Nitrate	ND			0.251	J	mg/L				NC	15

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-24930/1-A
Matrix: Water
Analysis Batch: 26848

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 24930

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.20	0.096	mg/L		07/22/20 02:59	07/27/20 15:35	1
Iron	ND		0.20	0.040	mg/L		07/22/20 02:59	07/27/20 15:35	1
Magnesium	ND		0.10	0.040	mg/L		07/22/20 02:59	07/27/20 15:35	1
Potassium	ND		0.50	0.20	mg/L		07/22/20 02:59	07/27/20 15:35	1
Sodium	ND		1.0	0.24	mg/L		07/22/20 02:59	07/27/20 15:35	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 410-24930/2-A
Matrix: Water
Analysis Batch: 26848

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 24930

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	0.400	0.427		mg/L		107	80 - 120
Iron	0.402	0.425		mg/L		106	80 - 120
Magnesium	0.200	0.214		mg/L		107	80 - 120
Potassium	5.60	5.91		mg/L		105	80 - 120
Sodium	2.00	2.31		mg/L		116	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 410-25416/1-A
Matrix: Water
Analysis Batch: 25689

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25416

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		07/23/20 04:59	07/23/20 12:05	1

Lab Sample ID: LCS 410-25416/2-A
Matrix: Water
Analysis Batch: 25689

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25416

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	4.92	5.13		ug/L		104	90 - 115

Lab Sample ID: 410-8309-2 MS
Matrix: Water
Analysis Batch: 25689

Client Sample ID: CD-6C-W-40.0-20200721
Prep Type: Dissolved
Prep Batch: 25416

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	ND		4.92	5.50		ug/L		112	75 - 125

Lab Sample ID: 410-8309-2 MSD
Matrix: Water
Analysis Batch: 25689

Client Sample ID: CD-6C-W-40.0-20200721
Prep Type: Dissolved
Prep Batch: 25416

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	ND		4.92	5.44		ug/L		110	75 - 125	1	20

Lab Sample ID: 410-8309-2 DU
Matrix: Water
Analysis Batch: 25689

Client Sample ID: CD-6C-W-40.0-20200721
Prep Type: Dissolved
Prep Batch: 25416

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	ND		ND		ug/L		NC	20

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 410-25690/22
Matrix: Water
Analysis Batch: 25690

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8.0	8.0	mg/L			07/22/20 20:36	1

Lab Sample ID: LCS 410-25690/23
Matrix: Water
Analysis Batch: 25690

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	189	168		mg/L		89	82 - 106

Lab Sample ID: 410-8309-1 DU
Matrix: Water
Analysis Batch: 25690

Client Sample ID: CD-6C-W-19.0-20200720
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	310		314		mg/L		2	5

Method: 4500 NH3 C-2011 - Ammonia

Lab Sample ID: MB 410-27996/1-A
Matrix: Water
Analysis Batch: 28080

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27996

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia-N	ND		0.75	0.25	mg/L		07/30/20 09:08	07/30/20 12:02	1

Lab Sample ID: LCS 410-27996/2-A
Matrix: Water
Analysis Batch: 28080

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27996

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia-N	500	475		mg/L		95	93 - 100

Method: 4500 S2 D-2011 - Sulfide, Total

Lab Sample ID: MB 410-26015/1
Matrix: Water
Analysis Batch: 26015

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.30	0.10	mg/L			07/24/20 10:41	1

Lab Sample ID: LCS 410-26015/13
Matrix: Water
Analysis Batch: 26015

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	0.999	1.05		mg/L		105	90 - 110

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8309-1

Method: 4500 S2 D-2011 - Sulfide, Total (Continued)

Lab Sample ID: 410-8309-1 MS
Matrix: Water
Analysis Batch: 26015

Client Sample ID: CD-6C-W-19.0-20200720
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide	ND	FL	0.491	0.431	FL	mg/L		88	90 - 110		

Lab Sample ID: 410-8309-1 MSD
Matrix: Water
Analysis Batch: 26015

Client Sample ID: CD-6C-W-19.0-20200720
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfide	ND	FL	0.491	0.433	FL	mg/L		88	90 - 110	0	29

Lab Sample ID: 410-8309-1 DU
Matrix: Water
Analysis Batch: 26015

Client Sample ID: CD-6C-W-19.0-20200720
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfide	ND	FL		ND		mg/L				NC	5

GC/MS VOA

Analysis Batch: 26573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8309-1	CD-6C-W-19.0-20200720	Total/NA	Water	8260C/UST	
410-8309-2	CD-6C-W-40.0-20200721	Total/NA	Water	8260C/UST	
410-8309-3	TB-20200721	Total/NA	Water	8260C/UST	
MB 410-26573/5	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-26573/6	Lab Control Sample	Total/NA	Water	8260C/UST	
LCS 410-26573/8	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-26573/7	Lab Control Sample Dup	Total/NA	Water	8260C/UST	
LCSD 410-26573/9	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

Analysis Batch: 27428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8309-1 - DL	CD-6C-W-19.0-20200720	Total/NA	Water	8260C/UST	
MB 410-27428/6	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-27428/4	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-27428/5	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

GC/MS Semi VOA

Prep Batch: 25887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8309-1 - DL	CD-6C-W-19.0-20200720	Total/NA	Water	3510C	
410-8309-1	CD-6C-W-19.0-20200720	Total/NA	Water	3510C	
410-8309-2	CD-6C-W-40.0-20200721	Total/NA	Water	3510C	

Analysis Batch: 27023

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8309-1	CD-6C-W-19.0-20200720	Total/NA	Water	8270D	25887
410-8309-1 - DL	CD-6C-W-19.0-20200720	Total/NA	Water	8270D	25887
410-8309-2	CD-6C-W-40.0-20200721	Total/NA	Water	8270D	25887

GC VOA

Prep Batch: 25069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8309-1	CD-6C-W-19.0-20200720	Total/NA	Water	RSK-175	
410-8309-2	CD-6C-W-40.0-20200721	Total/NA	Water	RSK-175	
MB 410-25069/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-25069/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-25069/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 25076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8309-1	CD-6C-W-19.0-20200720	Total/NA	Water	RSK-175	25069
410-8309-2	CD-6C-W-40.0-20200721	Total/NA	Water	RSK-175	25069
MB 410-25069/1-A	Method Blank	Total/NA	Water	RSK-175	25069
LCS 410-25069/2-A	Lab Control Sample	Total/NA	Water	RSK-175	25069
LCSD 410-25069/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	25069

Prep Batch: 25535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8309-1 - DL	CD-6C-W-19.0-20200720	Total/NA	Water	RSK-175	
410-8309-2 - DL	CD-6C-W-40.0-20200721	Total/NA	Water	RSK-175	

GC VOA (Continued)

Prep Batch: 25535 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-25535/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-25535/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-25535/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 25544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8309-1 - DL	CD-6C-W-19.0-20200720	Total/NA	Water	RSK-175	25535
410-8309-2 - DL	CD-6C-W-40.0-20200721	Total/NA	Water	RSK-175	25535
MB 410-25535/1-A	Method Blank	Total/NA	Water	RSK-175	25535
LCS 410-25535/2-A	Lab Control Sample	Total/NA	Water	RSK-175	25535
LCSD 410-25535/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	25535

GC Semi VOA

Prep Batch: 26282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8309-1	CD-6C-W-19.0-20200720	Total/NA	Water	8011	
410-8309-2	CD-6C-W-40.0-20200721	Total/NA	Water	8011	
MB 410-26282/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-26282/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-26282/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 26356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8309-1	CD-6C-W-19.0-20200720	Total/NA	Water	8011	26282
410-8309-2	CD-6C-W-40.0-20200721	Total/NA	Water	8011	26282
MB 410-26282/1-A	Method Blank	Total/NA	Water	8011	26282
LCS 410-26282/2-A	Lab Control Sample	Total/NA	Water	8011	26282
LCSD 410-26282/3-A	Lab Control Sample Dup	Total/NA	Water	8011	26282

Prep Batch: 26871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8309-2	CD-6C-W-40.0-20200721	Total/NA	Water	3510C	
MB 410-26871/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-26871/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-26871/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 27308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8309-1	CD-6C-W-19.0-20200720	Total/NA	Water	3510C	
MB 410-27308/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-27308/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-27308/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 29384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8309-1	CD-6C-W-19.0-20200720	Total/NA	Water	8015C	27308
MB 410-27308/1-A	Method Blank	Total/NA	Water	8015C	27308
LCS 410-27308/2-A	Lab Control Sample	Total/NA	Water	8015C	27308
LCSD 410-27308/3-A	Lab Control Sample Dup	Total/NA	Water	8015C	27308

GC Semi VOA

Prep Batch: 31854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8309-3	TB-20200721	Total/NA	Water	8011	
MB 410-31854/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-31854/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-31854/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 31867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8309-1	CD-6C-W-19.0-20200720	Total/NA	Water	Total TPH	
410-8309-2	CD-6C-W-40.0-20200721	Total/NA	Water	Total TPH	

Analysis Batch: 32084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8309-3	TB-20200721	Total/NA	Water	8011	31854
MB 410-31854/1-A	Method Blank	Total/NA	Water	8011	31854
LCS 410-31854/2-A	Lab Control Sample	Total/NA	Water	8011	31854
LCSD 410-31854/3-A	Lab Control Sample Dup	Total/NA	Water	8011	31854

Analysis Batch: 33184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8309-2	CD-6C-W-40.0-20200721	Total/NA	Water	8015C	26871
MB 410-26871/1-A	Method Blank	Total/NA	Water	8015C	26871
LCS 410-26871/2-A	Lab Control Sample	Total/NA	Water	8015C	26871
LCSD 410-26871/3-A	Lab Control Sample Dup	Total/NA	Water	8015C	26871

HPLC/IC

Analysis Batch: 24791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8309-1	CD-6C-W-19.0-20200720	Total/NA	Water	EPA 300.0 R2.1	
410-8309-2	CD-6C-W-40.0-20200721	Total/NA	Water	EPA 300.0 R2.1	
MB 410-24791/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
MB 410-24791/44	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-24791/43	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
410-8309-2 MS	CD-6C-W-40.0-20200721	Total/NA	Water	EPA 300.0 R2.1	
410-8309-2 DU	CD-6C-W-40.0-20200721	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 713029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8309-1	CD-6C-W-19.0-20200720	Total/NA	Water	300.0	
410-8309-2	CD-6C-W-40.0-20200721	Total/NA	Water	300.0	
410-8309-2	CD-6C-W-40.0-20200721	Total/NA	Water	300.0	
MB 460-713029/3	Method Blank	Total/NA	Water	300.0	
LCS 460-713029/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 460-713029/6	Lab Control Sample Dup	Total/NA	Water	300.0	

Metals

Prep Batch: 24930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8309-1	CD-6C-W-19.0-20200720	Total Recoverable	Water	3005A	
410-8309-2	CD-6C-W-40.0-20200721	Total Recoverable	Water	3005A	
MB 410-24930/1-A	Method Blank	Total Recoverable	Water	3005A	

Metals (Continued)

Prep Batch: 24930 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-24930/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Filtration Batch: 25288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8309-1	CD-6C-W-19.0-20200720	Dissolved	Water	Filtration	
410-8309-2	CD-6C-W-40.0-20200721	Dissolved	Water	Filtration	
410-8309-2 MS	CD-6C-W-40.0-20200721	Dissolved	Water	Filtration	
410-8309-2 MSD	CD-6C-W-40.0-20200721	Dissolved	Water	Filtration	
410-8309-2 DU	CD-6C-W-40.0-20200721	Dissolved	Water	Filtration	

Prep Batch: 25416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8309-1	CD-6C-W-19.0-20200720	Dissolved	Water	Non-Digest Prep	25288
410-8309-2	CD-6C-W-40.0-20200721	Dissolved	Water	Non-Digest Prep	25288
MB 410-25416/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-25416/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	
410-8309-2 MS	CD-6C-W-40.0-20200721	Dissolved	Water	Non-Digest Prep	25288
410-8309-2 MSD	CD-6C-W-40.0-20200721	Dissolved	Water	Non-Digest Prep	25288
410-8309-2 DU	CD-6C-W-40.0-20200721	Dissolved	Water	Non-Digest Prep	25288

Analysis Batch: 25689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8309-1	CD-6C-W-19.0-20200720	Dissolved	Water	6020A	25416
410-8309-2	CD-6C-W-40.0-20200721	Dissolved	Water	6020A	25416
MB 410-25416/1-A	Method Blank	Total/NA	Water	6020A	25416
LCS 410-25416/2-A	Lab Control Sample	Total/NA	Water	6020A	25416
410-8309-2 MS	CD-6C-W-40.0-20200721	Dissolved	Water	6020A	25416
410-8309-2 MSD	CD-6C-W-40.0-20200721	Dissolved	Water	6020A	25416
410-8309-2 DU	CD-6C-W-40.0-20200721	Dissolved	Water	6020A	25416

Analysis Batch: 26848

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8309-1	CD-6C-W-19.0-20200720	Total Recoverable	Water	6010C	24930
410-8309-2	CD-6C-W-40.0-20200721	Total Recoverable	Water	6010C	24930
410-8309-2	CD-6C-W-40.0-20200721	Total Recoverable	Water	6010C	24930
MB 410-24930/1-A	Method Blank	Total Recoverable	Water	6010C	24930
LCS 410-24930/2-A	Lab Control Sample	Total Recoverable	Water	6010C	24930

General Chemistry

Analysis Batch: 25690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8309-1	CD-6C-W-19.0-20200720	Total/NA	Water	2320B-2011	
410-8309-2	CD-6C-W-40.0-20200721	Total/NA	Water	2320B-2011	
MB 410-25690/22	Method Blank	Total/NA	Water	2320B-2011	
LCS 410-25690/23	Lab Control Sample	Total/NA	Water	2320B-2011	
410-8309-1 DU	CD-6C-W-19.0-20200720	Total/NA	Water	2320B-2011	

Analysis Batch: 26015

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8309-1	CD-6C-W-19.0-20200720	Total/NA	Water	4500 S2 D-2011	

General Chemistry (Continued)

Analysis Batch: 26015 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8309-2	CD-6C-W-40.0-20200721	Total/NA	Water	4500 S2 D-2011	
MB 410-26015/1	Method Blank	Total/NA	Water	4500 S2 D-2011	
LCS 410-26015/13	Lab Control Sample	Total/NA	Water	4500 S2 D-2011	
410-8309-1 MS	CD-6C-W-19.0-20200720	Total/NA	Water	4500 S2 D-2011	
410-8309-1 MSD	CD-6C-W-19.0-20200720	Total/NA	Water	4500 S2 D-2011	
410-8309-1 DU	CD-6C-W-19.0-20200720	Total/NA	Water	4500 S2 D-2011	

Prep Batch: 27996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8309-1	CD-6C-W-19.0-20200720	Total/NA	Water	4500 NH3 B-2011	
410-8309-2	CD-6C-W-40.0-20200721	Total/NA	Water	4500 NH3 B-2011	
MB 410-27996/1-A	Method Blank	Total/NA	Water	4500 NH3 B-2011	
LCS 410-27996/2-A	Lab Control Sample	Total/NA	Water	4500 NH3 B-2011	

Analysis Batch: 28080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8309-1	CD-6C-W-19.0-20200720	Total/NA	Water	4500 NH3 C-2011	27996
410-8309-2	CD-6C-W-40.0-20200721	Total/NA	Water	4500 NH3 C-2011	27996
MB 410-27996/1-A	Method Blank	Total/NA	Water	4500 NH3 C-2011	27996
LCS 410-27996/2-A	Lab Control Sample	Total/NA	Water	4500 NH3 C-2011	27996

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8309-1

Client Sample ID: CD-6C-W-19.0-20200720

Lab Sample ID: 410-8309-1

Date Collected: 07/20/20 15:30
Matrix: Water
Date Received: 07/21/20 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	26573	07/27/20 13:01	TK5O	ELLE
Total/NA	Analysis	8260C/UST	DL	50	27428	07/29/20 14:19	TK5O	ELLE
Total/NA	Prep	3510C			25887	07/24/20 08:55	I5BW	ELLE
Total/NA	Analysis	8270D		1	27023	07/28/20 10:22	W6XI	ELLE
Total/NA	Prep	3510C	DL		25887	07/24/20 08:55	I5BW	ELLE
Total/NA	Analysis	8270D	DL	5	27023	07/28/20 12:19	W6XI	ELLE
Total/NA	Prep	RSK-175			25069	07/22/20 08:48	IYN5	ELLE
Total/NA	Analysis	RSK-175		1	25076	07/22/20 14:07	IYN5	ELLE
Total/NA	Prep	RSK-175	DL		25535	07/23/20 09:34	IYN5	ELLE
Total/NA	Analysis	RSK-175	DL	100	25544	07/23/20 11:41	IYN5	ELLE
Total/NA	Prep	8011			26282	07/25/20 08:02	UKQ8	ELLE
Total/NA	Analysis	8011		1	26356	07/25/20 20:52	AC3T	ELLE
Total/NA	Prep	3510C			27308	07/28/20 20:31	UKL2	ELLE
Total/NA	Analysis	8015C		1	29384	07/31/20 18:23	YHQ2	ELLE
Total/NA	Analysis	Total TPH		1	31867	08/11/20 11:58	KP5X	ELLE
Total/NA	Analysis	300.0		5	713029	07/31/20 03:55	VMI	TAL EDI
Total/NA	Analysis	EPA 300.0 R2.1		5	24791	07/22/20 08:29	GJ35	ELLE
Total Recoverable	Prep	3005A			24930	07/22/20 02:59	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	26848	07/27/20 16:29	UCIG	ELLE
Dissolved	Filtration	Filtration			25288	07/22/20 17:55	UJLA	ELLE
Dissolved	Prep	Non-Digest Prep			25416	07/23/20 04:59	UJL8	ELLE
Dissolved	Analysis	6020A		1	25689	07/23/20 13:33	UPJE	ELLE
Total/NA	Analysis	2320B-2011		1	25690	07/22/20 21:10	DI9Q	ELLE
Total/NA	Prep	4500 NH3 B-2011			27996	07/30/20 09:08	P8DZ	ELLE
Total/NA	Analysis	4500 NH3 C-2011		1	28080	07/30/20 12:02	P8DZ	ELLE
Total/NA	Analysis	4500 S2 D-2011		1	26015	07/24/20 10:41	P8DZ	ELLE

Client Sample ID: CD-6C-W-40.0-20200721

Lab Sample ID: 410-8309-2

Date Collected: 07/21/20 11:45
Matrix: Water
Date Received: 07/21/20 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	26573	07/27/20 13:25	TK5O	ELLE
Total/NA	Prep	3510C			25887	07/24/20 08:55	I5BW	ELLE
Total/NA	Analysis	8270D		1	27023	07/28/20 10:51	W6XI	ELLE
Total/NA	Prep	RSK-175			25069	07/22/20 08:48	IYN5	ELLE
Total/NA	Analysis	RSK-175		1	25076	07/22/20 14:25	IYN5	ELLE
Total/NA	Prep	RSK-175	DL		25535	07/23/20 09:34	IYN5	ELLE
Total/NA	Analysis	RSK-175	DL	50	25544	07/23/20 11:59	IYN5	ELLE
Total/NA	Prep	8011			26282	07/25/20 08:02	UKQ8	ELLE
Total/NA	Analysis	8011		1	26356	07/25/20 21:08	AC3T	ELLE
Total/NA	Prep	3510C			26871	07/27/20 20:09	UKL2	ELLE
Total/NA	Analysis	8015C		1	33184	08/14/20 12:25	KP5X	ELLE
Total/NA	Analysis	Total TPH		1	31867	08/11/20 11:58	KP5X	ELLE

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8309-1

Client Sample ID: CD-6C-W-40.0-20200721

Lab Sample ID: 410-8309-2

Date Collected: 07/21/20 11:45

Matrix: Water

Date Received: 07/21/20 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	713029	07/31/20 03:40	VMI	TAL EDI
Total/NA	Analysis	300.0		20	713029	07/31/20 11:18	VMI	TAL EDI
Total/NA	Analysis	EPA 300.0 R2.1		5	24791	07/22/20 09:20	GJ35	ELLE
Total Recoverable	Prep	3005A			24930	07/22/20 02:59	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	26848	07/27/20 16:32	UCIG	ELLE
Total Recoverable	Prep	3005A			24930	07/22/20 02:59	UJL8	ELLE
Total Recoverable	Analysis	6010C		5	26848	07/27/20 17:18	UCIG	ELLE
Dissolved	Filtration	Filtration			25288	07/22/20 17:55	UJLA	ELLE
Dissolved	Prep	Non-Digest Prep			25416	07/23/20 04:59	UJL8	ELLE
Dissolved	Analysis	6020A		1	25689	07/23/20 13:04	UPJE	ELLE
Total/NA	Analysis	2320B-2011		1	25690	07/22/20 21:24	DI9Q	ELLE
Total/NA	Prep	4500 NH3 B-2011			27996	07/30/20 09:08	P8DZ	ELLE
Total/NA	Analysis	4500 NH3 C-2011		1	28080	07/30/20 12:02	P8DZ	ELLE
Total/NA	Analysis	4500 S2 D-2011		1	26015	07/24/20 10:41	P8DZ	ELLE

Client Sample ID: TB-20200721

Lab Sample ID: 410-8309-3

Date Collected: 06/17/20 00:00

Matrix: Water

Date Received: 07/21/20 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	26573	07/27/20 13:49	TK5O	ELLE
Total/NA	Prep	8011			31854	08/11/20 12:00	GC5R	ELLE
Total/NA	Analysis	8011		1	32084	08/11/20 23:22	AC3T	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Job ID: 410-8309-1
Project/Site: PHL Penrose Drilling Sampling

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015C	3510C	Water	>C12-C22 (1C)
8015C	3510C	Water	>C22-C44 (1C)
Total TPH		Water	Total Reported TPH

Laboratory: Eurofins TestAmerica, Edison

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	68-00522	02-28-21

Method Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8309-1

Method	Method Description	Protocol	Laboratory
8260C/UST	Volatile Organic Compounds (GC/MS)	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
RSK-175	Dissolved Gases (GC)	RSK	ELLE
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	ELLE
Total TPH	Total TPH	None	ELLE
300.0	Anions, Ion Chromatography	MCAWW	TAL EDI
EPA 300.0 R2.1	Anions, Ion Chromatgraphy	EPA	ELLE
6010C	Metals (ICP)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
2320B-2011	Alkalinity, Total	SM	ELLE
4500 NH3 C-2011	Ammonia	SM	ELLE
4500 S2 D-2011	Sulfide, Total	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
4500 NH3 B-2011	Ammonia, Distillation	SM	ELLE
5030C	Purge and Trap	SW846	ELLE
8011	Microextraction	SW846	ELLE
Filtration	Sample Filtration	None	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8309-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-8309-1	CD-6C-W-19.0-20200720	Water	07/20/20 15:30	07/21/20 16:52	
410-8309-2	CD-6C-W-40.0-20200721	Water	07/21/20 11:45	07/21/20 16:52	
410-8309-3	TB-20200721	Water	06/17/20 00:00	07/21/20 16:52	

Environmental Analysis Reque[illegible]dy

eurofins | Lancaster Laboratories Environmental

For Eurofi[illegible] Acct. # _____ Group

410-8309 Chain of Custody

COC # 608898

Client Information	
Client: Evergreen c/o Stantec	Acct. #: 16657
Project Name/#: PHL Penrose Drilling Sampling	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 213402602
Sampler: Dave Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: trip blank

Analysis Requested — Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Water	Other	Total # of Containers	Custom TPH w/ Ranges	TPH-GRO 8260/moisture	Metal 6010/Lead (dissolved 6020 total 6010B)	Sulfide	Chloride, Nitrate Nitrogen, Sulfate	Volatile Headspace Hydrocarbons	Total Alkalinity to 4.5	Ammonia Nitrogen	*SHORT LIST VOCs 8260 include TBA 8260 + EDB 8011	*Short List SVOCs 8270	Remarks
CD-6C-W-19.0-20200720	7/20/20	1530	X			X		17	X	X	X	X	X	X	X	X	X	X	
CD-6C-W-40.0-20200721	7/21/2020	1145	X			X		17	X	X	X	X	X	X	X	X	X	X	
TB-20200721	6/17/2020	—					X	2									X		

For Lab Use Only
FSC: _____
SCR#: _____

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks
* refer to Evergreen Petroleum Short List for list of analytes

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: Andrew.Klingbeil@stantec.com

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
Dave	7/21/20	1325	Pierre	7/21/20	1325
Pierre	7/21/20	1610			
			[illegible]	7-21-20	1622

EDD Required? Yes No
If yes, format: EQUIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:
UPS _____ FedEx _____ Other _____

Temperature upon receipt 0.8 - 1.2 °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT https://www.eurofinsus.com/coc
The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0919

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Carter, Amek A	Carrier Tracking No(s):	COC No: 410-104738.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: amekcarter@eurofinsus.com	State of Origin: Pennsylvania	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Pennsylvania		Job #: 410-8309-1
Address: 777 New Durham Road,	Due Date Requested: 7/31/2020			
City: Edison	TAT Requested (days):			
State, Zip: NJ, 08817				
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	PO #:			
Email:	WO #:			
Project Name: PHL Penrose	Project #: 41002220			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D/ (MOD) Local Method	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
CD-6C-W-19.0-20200720 (410-8309-1)	7/20/20	15:30 Eastern		Water			X	1	
CD-6C-W-40.0-20200721 (410-8309-2)	7/21/20	11:45 Eastern		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Lancaster Laboratories Env places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Lancaster Laboratories Env laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Lancaster Laboratories Env attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Lancaster Laboratories Env.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	David Hall	7-22-2020 1039	ELLE	RPndhm	22Jul20 1245	ELLE
2	RPndhm	22Jul20 1730	ELLE	Delilah D	7/22/20 1730	ETA
3						

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: IR1 2.0°C

Ver: 01/16/2019

8/30/2020

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-8309-1

Login Number: 8309
List Number: 1
Creator: Knoedler, Christine M

List Source: Eurofins Lancaster Laboratories Env

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	True	

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-8309-1

Login Number: 8309
List Number: 2
Creator: Rivera, Kenneth

List Source: Eurofins TestAmerica, Edison
List Creation: 07/25/20 06:44 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2°C, IR #11
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing America



ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-8427-1
Client Project/Site: PHL Penrose Drilling Sample
Revision: 1

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Andrew Klingbeil

Authorized for release by:
11/5/2020 5:24:53 PM

Amek Carter, Project Manager
(717)556-7252
amekcarter@eurofinsus.com

LINKS

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Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
11/5/2020 5:24:53 PM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 6
Client Sample Results 7
Surrogate Summary 9
QC Sample Results 10
QC Association Summary 15
Lab Chronicle 17
Certification Summary 18
Method Summary 19
Sample Summary 20
Chain of Custody 21
Receipt Checklists 22

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-8427-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-8427-1

Job ID: 410-8427-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-8427-1

Revision
The report being provided is a revision of the original report sent on 9/10/2020. The report (revision 1) is being revised due to: Analyte List Change - Added TBA.

Receipt
The sample was received on 7/22/2020 3:55 PM; the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.8º C.

Receipt Exceptions
The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): CD-6A-S-11.0-20200722 (410-8427-1). The COC lists CD-6A-S-11.0-20200722 as a groundwater samples with 17 containers. CD-6A-S-11.0-20200722 is a soil sample with 6 containers.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-8427-1

Client Sample ID: CD-6A-S-11.0-20200722

Lab Sample ID: 410-8427-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C4-C12-TPH-GRO	810		130	53	ug/Kg	1	☼	8260C	Total/NA
Phenanthrene	7.9	J	22	4.3	ug/Kg	1	☼	8270D	Total/NA
Pyrene	7.4	J	22	4.3	ug/Kg	1	☼	8270D	Total/NA
Lead	11		1.3	0.52	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CD-6A-S-11.0-20200722

Date Collected: 07/22/20 09:55
Date Received: 07/22/20 15:55

Lab Sample ID: 410-8427-1

Matrix: Solid
Percent Solids: 80.8

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		6.0	0.48	ug/Kg	☼	07/23/20 10:17	07/28/20 14:13	1
1,3,5-Trimethylbenzene	ND		6.0	0.60	ug/Kg	☼	07/23/20 10:17	07/28/20 14:13	1
Toluene	ND		6.0	0.72	ug/Kg	☼	07/23/20 10:17	07/28/20 14:13	1
Methyl tertiary butyl ether	ND		6.0	0.60	ug/Kg	☼	07/23/20 10:17	07/28/20 14:13	1
Benzene	ND		6.0	0.60	ug/Kg	☼	07/23/20 10:17	07/28/20 14:13	1
Naphthalene	ND		6.0	2.4	ug/Kg	☼	07/23/20 10:17	07/28/20 14:13	1
1,2,4-Trimethylbenzene	ND		6.0	0.60	ug/Kg	☼	07/23/20 10:17	07/28/20 14:13	1
Isopropylbenzene	ND		6.0	0.48	ug/Kg	☼	07/23/20 10:17	07/28/20 14:13	1
1,2-Dibromoethane	ND		6.0	0.48	ug/Kg	☼	07/23/20 10:17	07/28/20 14:13	1
1,2-Dichloroethane	ND		6.0	0.72	ug/Kg	☼	07/23/20 10:17	07/28/20 14:13	1
C4-C12-TPH-GRO	**810**		130	53	ug/Kg	☼	07/23/20 10:17	07/28/20 14:13	1
Xylenes, Total	ND		12	1.7	ug/Kg	☼	07/23/20 10:17	07/28/20 14:13	1
t-Butyl alcohol	ND		120	18	ug/Kg	☼	07/23/20 10:17	07/28/20 14:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*54 - 135*	*07/23/20 10:17*	*07/28/20 14:13*	*1*
4-Bromofluorobenzene (Surr)	*95*		*50 - 131*	*07/23/20 10:17*	*07/28/20 14:13*	*1*
Dibromofluoromethane (Surr)	*99*		*50 - 141*	*07/23/20 10:17*	*07/28/20 14:13*	*1*
Toluene-d8 (Surr)	*100*		*52 - 141*	*07/23/20 10:17*	*07/28/20 14:13*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		22	4.3	ug/Kg	☼	08/04/20 16:23	08/05/20 16:32	1
Benzo[a]anthracene	ND		22	8.6	ug/Kg	☼	08/04/20 16:23	08/05/20 16:32	1
Benzo[a]pyrene	ND		22	4.3	ug/Kg	☼	08/04/20 16:23	08/05/20 16:32	1
Benzo[b]fluoranthene	ND		22	4.3	ug/Kg	☼	08/04/20 16:23	08/05/20 16:32	1
Benzo[g,h,i]perylene	ND		22	4.3	ug/Kg	☼	08/04/20 16:23	08/05/20 16:32	1
Chrysene	ND		22	4.3	ug/Kg	☼	08/04/20 16:23	08/05/20 16:32	1
Fluorene	ND		22	4.3	ug/Kg	☼	08/04/20 16:23	08/05/20 16:32	1
Naphthalene	ND		22	8.6	ug/Kg	☼	08/04/20 16:23	08/05/20 16:32	1
Phenanthrene	**7.9**	**J**	22	4.3	ug/Kg	☼	08/04/20 16:23	08/05/20 16:32	1
Pyrene	**7.4**	**J**	22	4.3	ug/Kg	☼	08/04/20 16:23	08/05/20 16:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*82*		*34 - 117*	*08/04/20 16:23*	*08/05/20 16:32*	*1*
Nitrobenzene-d5 (Surr)	*76*		*23 - 115*	*08/04/20 16:23*	*08/05/20 16:32*	*1*
p-Terphenyl-d14 (Surr)	*92*		*35 - 135*	*08/04/20 16:23*	*08/05/20 16:32*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		15	6.1	mg/Kg	☼	07/30/20 09:00	08/01/20 01:50	1
>C22-C44 (1C)	ND		15	6.1	mg/Kg	☼	07/30/20 09:00	08/01/20 01:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o- terphenyl (Surr) (1C)	*89*		*42 - 143*	*07/30/20 09:00*	*07/31/20 04:41*	*1*
o- terphenyl (Surr) (1C)	*85*		*42 - 143*	*07/30/20 09:00*	*08/01/20 01:50*	*1*
Chlorobenzene (Surr) (1C)	*73*		*54 - 137*	*07/30/20 09:00*	*08/01/20 01:50*	*1*

Method: Total TPH - Total TPH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Reported TPH	ND		0.25	0.092	mg/Kg	☼		07/31/20 09:17	1

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-8427-1

Client Sample ID: CD-6A-S-11.0-20200722
Date Collected: 07/22/20 09:55
Date Received: 07/22/20 15:55

Lab Sample ID: 410-8427-1
Matrix: Solid
Percent Solids: 80.8

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	11		1.3	0.52	mg/Kg	☼	07/23/20 04:29	07/26/20 10:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19.2		1.0	1.0	%			07/22/20 22:36	1

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-8427-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(54-135)	(50-131)	(50-141)	(52-141)
410-8427-1	CD-6A-S-11.0-20200722	104	95	99	100
LCS 410-27000/7	Lab Control Sample	102	97	99	101
LCSD 410-27000/6	Lab Control Sample Dup	101	98	100	102
LCSD 410-27000/8	Lab Control Sample Dup	104	98	99	102
MB 410-27000/9	Method Blank	101	93	101	100

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(34-117)	(23-115)	(35-135)
410-8427-1	CD-6A-S-11.0-20200722	82	76	92
LCS 410-29542/2-A	Lab Control Sample	84	76	90
MB 410-29542/1-A	Method Blank	91	81	108

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		OTP1	CBNZ1
Lab Sample ID	Client Sample ID	(42-143)	(54-137)
410-8427-1	CD-6A-S-11.0-20200722	89	
410-8427-1	CD-6A-S-11.0-20200722	85	73
410-8427-1 DU	CD-6A-S-11.0-20200722	95	
410-8427-1 DU	CD-6A-S-11.0-20200722	92	73
410-8427-1 MS	CD-6A-S-11.0-20200722	101	
410-8427-1 MS	CD-6A-S-11.0-20200722	97	69
LCS 410-27886/2-A	Lab Control Sample	112	
LCS 410-27886/2-A	Lab Control Sample	106	75
MB 410-27886/1-A	Method Blank	105	
MB 410-27886/1-A	Method Blank	96	75

Surrogate Legend

OTP = o- terphenyl (Surr)
CBNZ = Chlorobenzene (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-27000/9
Matrix: Solid
Analysis Batch: 27000

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		5.0	0.40	ug/Kg			07/28/20 12:49	1
1,3,5-Trimethylbenzene	ND		5.0	0.50	ug/Kg			07/28/20 12:49	1
Toluene	ND		5.0	0.60	ug/Kg			07/28/20 12:49	1
Methyl tertiary butyl ether	ND		5.0	0.50	ug/Kg			07/28/20 12:49	1
Benzene	ND		5.0	0.50	ug/Kg			07/28/20 12:49	1
Naphthalene	ND		5.0	2.0	ug/Kg			07/28/20 12:49	1
1,2,4-Trimethylbenzene	ND		5.0	0.50	ug/Kg			07/28/20 12:49	1
Isopropylbenzene	ND		5.0	0.40	ug/Kg			07/28/20 12:49	1
1,2-Dibromoethane	ND		5.0	0.40	ug/Kg			07/28/20 12:49	1
1,2-Dichloroethane	ND		5.0	0.60	ug/Kg			07/28/20 12:49	1
C4-C12-TPH-GRO	ND		110	44	ug/Kg			07/28/20 12:49	1
Xylenes, Total	ND		10	1.4	ug/Kg			07/28/20 12:49	1
t-Butyl alcohol	ND		100	15	ug/Kg			07/28/20 12:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*54 - 135*		*07/28/20 12:49*	*1*
4-Bromofluorobenzene (Surr)	*93*		*50 - 131*		*07/28/20 12:49*	*1*
Dibromofluoromethane (Surr)	*101*		*50 - 141*		*07/28/20 12:49*	*1*
Toluene-d8 (Surr)	*100*		*52 - 141*		*07/28/20 12:49*	*1*

Lab Sample ID: LCS 410-27000/7
Matrix: Solid
Analysis Batch: 27000

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C4-C12-TPH-GRO			1000	1020		ug/Kg		102	75 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*54 - 135*
4-Bromofluorobenzene (Surr)	*97*		*50 - 131*
Dibromofluoromethane (Surr)	*99*		*50 - 141*
Toluene-d8 (Surr)	*101*		*52 - 141*

Lab Sample ID: LCSD 410-27000/6
Matrix: Solid
Analysis Batch: 27000

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene			20.0	20.0		ug/Kg		100	78 - 120	NaN	30
1,3,5-Trimethylbenzene			20.0	20.2		ug/Kg		101	73 - 120	NaN	30
Toluene			20.0	20.8		ug/Kg		104	80 - 120	NaN	30
Methyl tertiary butyl ether			20.0	17.8		ug/Kg		89	72 - 120	NaN	30
Benzene			20.0	20.6		ug/Kg		103	80 - 120	NaN	30
Naphthalene			20.0	17.7		ug/Kg		89	48 - 130	NaN	30
1,2,4-Trimethylbenzene			20.0	20.3		ug/Kg		101	73 - 120	NaN	30
Isopropylbenzene			20.0	20.7		ug/Kg		103	77 - 120	NaN	30
1,2-Dibromoethane			20.0	20.3		ug/Kg		102	76 - 120	NaN	30
1,2-Dichloroethane			20.0	20.0		ug/Kg		100	71 - 128	NaN	30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-27000/6
Matrix: Solid
Analysis Batch: 27000

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total			60.0	63.1		ug/Kg		105	75 - 120	NaN	30
t-Butyl alcohol			200	204		ug/Kg		102	74 - 121	NaN	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*54 - 135*
4-Bromofluorobenzene (Surr)	*98*		*50 - 131*
Dibromofluoromethane (Surr)	*100*		*50 - 141*
Toluene-d8 (Surr)	*102*		*52 - 141*

Lab Sample ID: LCSD 410-27000/8
Matrix: Solid
Analysis Batch: 27000

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C4-C12-TPH-GRO			1000	1010		ug/Kg		101	75 - 120	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*54 - 135*
4-Bromofluorobenzene (Surr)	*98*		*50 - 131*
Dibromofluoromethane (Surr)	*99*		*50 - 141*
Toluene-d8 (Surr)	*102*		*52 - 141*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-29542/1-A
Matrix: Solid
Analysis Batch: 29801

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29542

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		17	3.3	ug/Kg		08/04/20 16:23	08/05/20 10:39	1
Benzo[a]anthracene	ND		17	6.7	ug/Kg		08/04/20 16:23	08/05/20 10:39	1
Benzo[a]pyrene	ND		17	3.3	ug/Kg		08/04/20 16:23	08/05/20 10:39	1
Benzo[b]fluoranthene	ND		17	3.3	ug/Kg		08/04/20 16:23	08/05/20 10:39	1
Benzo[g,h,i]perylene	ND		17	3.3	ug/Kg		08/04/20 16:23	08/05/20 10:39	1
Chrysene	ND		17	3.3	ug/Kg		08/04/20 16:23	08/05/20 10:39	1
Fluorene	ND		17	3.3	ug/Kg		08/04/20 16:23	08/05/20 10:39	1
Naphthalene	ND		17	6.7	ug/Kg		08/04/20 16:23	08/05/20 10:39	1
Phenanthrene	ND		17	3.3	ug/Kg		08/04/20 16:23	08/05/20 10:39	1
Pyrene	ND		17	3.3	ug/Kg		08/04/20 16:23	08/05/20 10:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*91*		*34 - 117*	*08/04/20 16:23*	*08/05/20 10:39*	*1*
Nitrobenzene-d5 (Surr)	*81*		*23 - 115*	*08/04/20 16:23*	*08/05/20 10:39*	*1*
p-Terphenyl-d14 (Surr)	*108*		*35 - 135*	*08/04/20 16:23*	*08/05/20 10:39*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-29542/2-A
Matrix: Solid
Analysis Batch: 29801

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29542

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	1670	1550		ug/Kg		93	67 - 120
Benzo[a]anthracene	1670	1460		ug/Kg		88	68 - 120
Benzo[a]pyrene	1670	1470		ug/Kg		88	68 - 119
Benzo[b]fluoranthene	1670	1400		ug/Kg		84	67 - 125
Benzo[g,h,i]perylene	1670	1460		ug/Kg		87	68 - 125
Chrysene	1670	1450		ug/Kg		87	66 - 111
Fluorene	1670	1550		ug/Kg		93	62 - 110
Naphthalene	1680	1310		ug/Kg		78	49 - 104
Phenanthrene	1670	1530		ug/Kg		92	67 - 116
Pyrene	1680	1440		ug/Kg		85	67 - 109

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*84*		*34 - 117*
Nitrobenzene-d5 (Surr)	*76*		*23 - 115*
p-Terphenyl-d14 (Surr)	*90*		*35 - 135*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 410-27886/1-A
Matrix: Solid
Analysis Batch: 28259

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27886

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o- terphenyl (Surr) (1C)	*105*		*42 - 143*	*07/30/20 09:00*	*07/31/20 04:01*	*1*

Lab Sample ID: MB 410-27886/1-A
Matrix: Solid
Analysis Batch: 29384

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27886

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		12	5.0	mg/Kg		07/30/20 09:00	08/01/20 01:08	1
>C22-C44 (1C)	ND		12	5.0	mg/Kg		07/30/20 09:00	08/01/20 01:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o- terphenyl (Surr) (1C)	*96*		*42 - 143*	*07/30/20 09:00*	*08/01/20 01:08*	*1*
Chlorobenzene (Surr) (1C)	*75*		*54 - 137*	*07/30/20 09:00*	*08/01/20 01:08*	*1*

Lab Sample ID: LCS 410-27886/2-A
Matrix: Solid
Analysis Batch: 28259

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27886

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (C10-C28) (1C)	133	134		mg/Kg		100	76 - 117

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o- terphenyl (Surr) (1C)	*112*		*42 - 143*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: LCS 410-27886/2-A
Matrix: Solid
Analysis Batch: 29384

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27886

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
DRO (C10-C28) (1C)			133	104		mg/Kg		78	76 - 117		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o- terphenyl (Surr) (1C)	*106*		*42 - 143*
Chlorobenzene (Surr) (1C)	*75*		*54 - 137*

Lab Sample ID: 410-8427-1 MS
Matrix: Solid
Analysis Batch: 28259

Client Sample ID: CD-6A-S-11.0-20200722
Prep Type: Total/NA
Prep Batch: 27886

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
DRO (C10-C28) (1C)	ND		165	156		mg/Kg	☼	95	76 - 117		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
o- terphenyl (Surr) (1C)	*101*		*42 - 143*

Lab Sample ID: 410-8427-1 MS
Matrix: Solid
Analysis Batch: 29384

Client Sample ID: CD-6A-S-11.0-20200722
Prep Type: Total/NA
Prep Batch: 27886

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
o- terphenyl (Surr) (1C)	*97*		*42 - 143*
Chlorobenzene (Surr) (1C)	*69*		*54 - 137*

Lab Sample ID: 410-8427-1 DU
Matrix: Solid
Analysis Batch: 28259

Client Sample ID: CD-6A-S-11.0-20200722
Prep Type: Total/NA
Prep Batch: 27886

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
o- terphenyl (Surr) (1C)	*95*		*42 - 143*

Lab Sample ID: 410-8427-1 DU
Matrix: Solid
Analysis Batch: 29384

Client Sample ID: CD-6A-S-11.0-20200722
Prep Type: Total/NA
Prep Batch: 27886

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
>C12-C22 (1C)	ND			ND		mg/Kg	☼			NC	
>C22-C44 (1C)	ND			6.52	J	mg/Kg	☼			NC	

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
o- terphenyl (Surr) (1C)	*92*		*42 - 143*
Chlorobenzene (Surr) (1C)	*73*		*54 - 137*

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-8427-1

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-25406/1-A
Matrix: Solid
Analysis Batch: 26453

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25406

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.4	0.56	mg/Kg		07/23/20 04:29	07/26/20 08:51	1

Lab Sample ID: LCS 410-25406/2-A
Matrix: Solid
Analysis Batch: 26453

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25406

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	2.83	2.78		mg/Kg		98	80 - 120

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-8427-1

GC/MS VOA

Prep Batch: 25564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8427-1	CD-6A-S-11.0-20200722	Total/NA	Solid	5035	

Analysis Batch: 27000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8427-1	CD-6A-S-11.0-20200722	Total/NA	Solid	8260C	25564
MB 410-27000/9	Method Blank	Total/NA	Solid	8260C	
LCS 410-27000/7	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 410-27000/6	Lab Control Sample Dup	Total/NA	Solid	8260C	
LCSD 410-27000/8	Lab Control Sample Dup	Total/NA	Solid	8260C	

GC/MS Semi VOA

Prep Batch: 29542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8427-1	CD-6A-S-11.0-20200722	Total/NA	Solid	3546	
MB 410-29542/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-29542/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 29801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8427-1	CD-6A-S-11.0-20200722	Total/NA	Solid	8270D	29542
MB 410-29542/1-A	Method Blank	Total/NA	Solid	8270D	29542
LCS 410-29542/2-A	Lab Control Sample	Total/NA	Solid	8270D	29542

GC Semi VOA

Prep Batch: 27886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8427-1	CD-6A-S-11.0-20200722	Total/NA	Solid	3546	
MB 410-27886/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-27886/2-A	Lab Control Sample	Total/NA	Solid	3546	
410-8427-1 MS	CD-6A-S-11.0-20200722	Total/NA	Solid	3546	
410-8427-1 DU	CD-6A-S-11.0-20200722	Total/NA	Solid	3546	

Analysis Batch: 28259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8427-1	CD-6A-S-11.0-20200722	Total/NA	Solid	8015C	27886
MB 410-27886/1-A	Method Blank	Total/NA	Solid	8015C	27886
LCS 410-27886/2-A	Lab Control Sample	Total/NA	Solid	8015C	27886
410-8427-1 MS	CD-6A-S-11.0-20200722	Total/NA	Solid	8015C	27886
410-8427-1 DU	CD-6A-S-11.0-20200722	Total/NA	Solid	8015C	27886

Analysis Batch: 28450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8427-1	CD-6A-S-11.0-20200722	Total/NA	Solid	Total TPH	

Analysis Batch: 29384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8427-1	CD-6A-S-11.0-20200722	Total/NA	Solid	8015C	27886
MB 410-27886/1-A	Method Blank	Total/NA	Solid	8015C	27886
LCS 410-27886/2-A	Lab Control Sample	Total/NA	Solid	8015C	27886
410-8427-1 MS	CD-6A-S-11.0-20200722	Total/NA	Solid	8015C	27886

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-8427-1

GC Semi VOA (Continued)

Analysis Batch: 29384 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8427-1 DU	CD-6A-S-11.0-20200722	Total/NA	Solid	8015C	27886

Metals

Prep Batch: 25406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8427-1	CD-6A-S-11.0-20200722	Total/NA	Solid	3050B	
MB 410-25406/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 410-25406/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 26453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8427-1	CD-6A-S-11.0-20200722	Total/NA	Solid	6010C	25406
MB 410-25406/1-A	Method Blank	Total/NA	Solid	6010C	25406
LCS 410-25406/2-A	Lab Control Sample	Total/NA	Solid	6010C	25406

General Chemistry

Analysis Batch: 25370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8427-1	CD-6A-S-11.0-20200722	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-8427-1

Client Sample ID: CD-6A-S-11.0-20200722
Date Collected: 07/22/20 09:55
Date Received: 07/22/20 15:55

Lab Sample ID: 410-8427-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	25370	07/22/20 22:36	X4C8	ELLE

Client Sample ID: CD-6A-S-11.0-20200722
Date Collected: 07/22/20 09:55
Date Received: 07/22/20 15:55

Lab Sample ID: 410-8427-1
Matrix: Solid
Percent Solids: 80.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			25564	07/23/20 10:17	Z8FW	ELLE
Total/NA	Analysis	8260C		1	27000	07/28/20 14:13	R64Z	ELLE
Total/NA	Prep	3546			29542	08/04/20 16:23	DN9W	ELLE
Total/NA	Analysis	8270D		1	29801	08/05/20 16:32	UWHS	ELLE
Total/NA	Prep	3546			27886	07/30/20 09:00	JH8Y	ELLE
Total/NA	Analysis	8015C		1	29384	08/01/20 01:50	YHQ2	ELLE
Total/NA	Prep	3546			27886	07/30/20 09:00	JH8Y	ELLE
Total/NA	Analysis	8015C		1	28259	07/31/20 04:41	IUSB	ELLE
Total/NA	Analysis	Total TPH		1	28450	07/31/20 09:17	KP5X	ELLE
Total/NA	Prep	3050B			25406	07/23/20 04:29	UAMX	ELLE
Total/NA	Analysis	6010C		1	26453	07/26/20 10:17	UCIG	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp. Job ID: 410-8427-1
Project/Site: PHL Penrose Drilling Sample

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015C	3546	Solid	>C12-C22 (1C)
8015C	3546	Solid	>C22-C44 (1C)
Moisture		Solid	Percent Moisture
Total TPH		Solid	Total Reported TPH

Method Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-8427-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	ELLE
Total TPH	Total TPH	None	ELLE
6010C	Metals (ICP)	SW846	ELLE
Moisture	Percent Moisture	EPA	ELLE
3050B	Preparation, Metals	SW846	ELLE
3546	Microwave Extraction	SW846	ELLE
5035	Closed System Purge and Trap	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sample

Job ID: 410-8427-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-8427-1	CD-6A-S-11.0-20200722	Solid	07/22/20 09:55	07/22/20 15:55	

Environmental Analysis Req[illegible]tody

eurofins | Lancaster Laboratories Environmental

Acct. # _____ Fc[illegible] only

410-8427 Chain of Custody

COC #608899

Client Information	
Client: Evergreen c/o Stantec	Acct. #: 16657
Project Name/#: PHL- Penrose Drilling Sampling	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 213402602
Sampler: Dane Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: _____

Analysis Requested — Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Water	Other	Total # of Containers	Custom TPH w/ Ranges	TPH-GRO 8260 / moisture (H)	Metal 6010 / Lead (dissolved 6020 total 6010B) (N)	Sulfide (O)	Chloride, Nitrate Nitrogen, Sulfate	Volatile Headspace Hydrocarbons (H)	Total Alkalinity to 4.5	Ammonia Nitrogen (S)	*Short List VOCs 8260 including TBA 8260 + EDB 8011 (H)	*Short List SVOCs 8270	Remarks
CD-6A-S-11.0-20200722	7/22/20	0955	X			X		17	X	X	X	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	X	X	dissolved lead 6020 only = X

do not analyze

For Lab Use Only
FSC: _____
SCR#: _____

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: Andrew.Klingbeil@stantec.com

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)
Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13
NYSDEC Category A or B | MA MCP | CT RCP

Relinquished by	Date	Time	Received by	Date	Time
[signature]	7/22/20	1135	[signature]	7-22-20	1135
[signature]	7-22-20	1547			
			[signature]	7-22-20	1555

EDD Required? Yes No
If yes, format: EQUIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____

Temperature upon receipt 5.8 °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT https://www.eurofinsus.com/coc
The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0919

wm

Login Sample Receipt Checklist

Client: Stantec Consulting Corp. Job Number: 410-8427-1

Login Number: 8427 **List Source: Eurofins Lancaster Laboratories Env**
List Number: 1
Creator: Mathers, William

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-8574-1
Client Project/Site: PHL Penrose Drilling Sampling

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Andrew Klingbeil

Authorized for release by:
8/26/2020 2:12:41 PM

Amek Carter, Project Manager
(717)556-7252
amekcarter@eurofinsus.com

LINKS

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Results relate only to the items tested and the sample(s) as received by the laboratory.

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Amek Carter
Project Manager
8/26/2020 2:12:41 PM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 6
Detection Summary 7
Client Sample Results 9
Surrogate Summary 13
QC Sample Results 15
QC Association Summary 25
Lab Chronicle 29
Certification Summary 31
Method Summary 32
Sample Summary 33
Chain of Custody 34
Receipt Checklists 36

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8574-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
XL	Surrogate recovery is below control limits

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-8574-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-8574-1

Receipt
The samples were received on 7/23/2020 6:58 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.0º C.

Receipt Exceptions
A trip blank was not submitted for analysis with the sample shipment and was not listed on the Chain of Custody (COC).

GC/MS VOA
Method 8260C/UST: The following sample CD-6A-W-44.0-20200723 (410-8574-2) had matrix interference with an internal standard t-Butyl alcohol-d10, therefore the GRO result is biased low.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: Surrogate recovery for the following sample was outside control limits: CD-6A-W-44.0-20200723 (410-8574-2). Re-extraction and/or re-analysis was performed and surrogate recovery was outside control limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

HPLC/IC
Method 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: CD-6A-W-44.0-20200723 (410-8574-2). Elevated reporting limits (RLs) are provided.

Method 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: CD-6A-W-44.0-20200723 (410-8574-2). Elevated reporting limits (RLs) are provided.

Method 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: (410-8946-F-3), (410-8946-A-3 DU), (410-8946-F-3 MS) and (410-8946-F-3 MSD). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method Filtration: The following samples were not filtered within 15 minutes of sample collection as required by the method: CD-6A-W-19.0-20200722 (410-8574-1) and CD-6A-W-44.0-20200723 (410-8574-2). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8574-1

Client Sample ID: CD-6A-W-19.0-20200722 — Lab Sample ID: 410-8574-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	270		25	5.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	55		25	1.5	ug/L	5		8260C/UST	Total/NA
Benzene	5.3		5.0	1.0	ug/L	5		8260C/UST	Total/NA
C4-C12-TPH-GRO	5900		250	150	ug/L	5		8260C/UST	Total/NA
Ethylbenzene	21		5.0	2.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	16	J	25	1.0	ug/L	5		8260C/UST	Total/NA
Toluene	18		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	57		30	7.0	ug/L	5		8260C/UST	Total/NA
Naphthalene	8.9		0.50	0.10	ug/L	1		8270D	Total/NA
Ethane (1C)	1.9	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	5300		100	60	ug/L	20		RSK-175	Total/NA
>C12-C22 (1C)	0.67		0.096	0.035	mg/L	1		8015C	Total/NA
>C22-C44 (1C)	0.45		0.096	0.035	mg/L	1		8015C	Total/NA
Total Reported TPH	1.1		0.20	0.074	mg/L	1		Total TPH	Total/NA
Nitrogen, Nitrate	0.51		0.50	0.25	mg/L	5		EPA 300.0 R2.1	Total/NA
Chloride	61		0.32	0.039	mg/L	1		EPA 300.0 R2.1	Total/NA
Sulfate	75		0.48	0.16	mg/L	1		EPA 300.0 R2.1	Total/NA
Calcium	63		0.20	0.096	mg/L	1		6010C	Total Recoverable
Iron	6.2		0.20	0.040	mg/L	1		6010C	Total Recoverable
Magnesium	31		0.10	0.040	mg/L	1		6010C	Total Recoverable
Potassium	5.9		0.50	0.20	mg/L	1		6010C	Total Recoverable
Sodium	120		1.0	0.24	mg/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	410		8.0	8.0	mg/L	1		2320B-2011	Total/NA
Ammonia-N	0.78	J	1.1	0.36	mg/L	1		4500 NH3 C-2011	Total/NA

Client Sample ID: CD-6A-W-44.0-20200723 — Lab Sample ID: 410-8574-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	140		25	5.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	48		25	1.5	ug/L	5		8260C/UST	Total/NA
Benzene	220		5.0	1.0	ug/L	5		8260C/UST	Total/NA
C4-C12-TPH-GRO	6600		250	150	ug/L	5		8260C/UST	Total/NA
Ethylbenzene	78		5.0	2.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	12	J	25	1.0	ug/L	5		8260C/UST	Total/NA
Toluene	230		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	460		30	7.0	ug/L	5		8260C/UST	Total/NA
Naphthalene	19		0.51	0.10	ug/L	1		8270D	Total/NA
Methane (1C) - DL	5600		100	60	ug/L	20		RSK-175	Total/NA
>C12-C22 (1C)	1.4		0.094	0.035	mg/L	1		8015C	Total/NA
>C22-C44 (1C)	0.27		0.094	0.035	mg/L	1		8015C	Total/NA
Total Reported TPH	1.7		0.20	0.074	mg/L	1		Total TPH	Total/NA
Nitrogen, Nitrate	0.056	J	0.10	0.050	mg/L	1		EPA 300.0 R2.1	Total/NA
Chloride	1000		8.0	0.98	mg/L	25		EPA 300.0 R2.1	Total/NA
Sulfate	26		2.4	0.79	mg/L	5		EPA 300.0 R2.1	Total/NA
Calcium	53		0.20	0.096	mg/L	1		6010C	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: CD-6A-W-44.0-20200723 (Continued)

Lab Sample ID: 410-8574-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	7.4		0.20	0.040	mg/L	1		6010C	Total Recoverable
Magnesium	39		0.10	0.040	mg/L	1		6010C	Total Recoverable
Potassium	10		0.50	0.20	mg/L	1		6010C	Total Recoverable
Sodium	900		5.0	1.2	mg/L	5		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	170		8.0	8.0	mg/L	1		2320B-2011	Total/NA
Ammonia-N	0.87	J	1.1	0.36	mg/L	1		4500 NH3 C-2011	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8574-1

Client Sample ID: CD-6A-W-19.0-20200722

Date Collected: 07/22/20 14:30
Date Received: 07/23/20 18:58

Lab Sample ID: 410-8574-1

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**270**		25	5.0	ug/L			07/31/20 11:49	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			07/31/20 11:49	5
1,3,5-Trimethylbenzene	**55**		25	1.5	ug/L			07/31/20 11:49	5
Benzene	**5.3**		5.0	1.0	ug/L			07/31/20 11:49	5
C4-C12-TPH-GRO	**5900**		250	150	ug/L			07/31/20 11:49	5
Ethylbenzene	**21**		5.0	2.0	ug/L			07/31/20 11:49	5
Isopropylbenzene	**16**	**J**	25	1.0	ug/L			07/31/20 11:49	5
Methyl tertiary butyl ether	ND		5.0	1.0	ug/L			07/31/20 11:49	5
Toluene	**18**		5.0	1.0	ug/L			07/31/20 11:49	5
Xylenes, Total	**57**		30	7.0	ug/L			07/31/20 11:49	5
2-Methyl-2-propanol	ND		250	60	ug/L			07/31/20 11:49	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*		*07/31/20 11:49*	*5*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*07/31/20 11:49*	*5*
Dibromofluoromethane (Surr)	*107*		*80 - 120*		*07/31/20 11:49*	*5*
Toluene-d8 (Surr)	*92*		*80 - 120*		*07/31/20 11:49*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		07/26/20 13:46	07/27/20 17:03	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		07/26/20 13:46	07/27/20 17:03	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		07/26/20 13:46	07/27/20 17:03	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		07/26/20 13:46	07/27/20 17:03	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		07/26/20 13:46	07/27/20 17:03	1
Chrysene	ND		0.50	0.10	ug/L		07/26/20 13:46	07/27/20 17:03	1
Fluorene	ND		0.50	0.10	ug/L		07/26/20 13:46	07/27/20 17:03	1
Naphthalene	**8.9**		0.50	0.10	ug/L		07/26/20 13:46	07/27/20 17:03	1
Phenanthrene	ND		0.50	0.10	ug/L		07/26/20 13:46	07/27/20 17:03	1
Pyrene	ND		0.50	0.10	ug/L		07/26/20 13:46	07/27/20 17:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*57*		*44 - 102*	*07/26/20 13:46*	*07/27/20 17:03*	*1*
Nitrobenzene-d5 (Surr)	*56*		*38 - 113*	*07/26/20 13:46*	*07/27/20 17:03*	*1*
p-Terphenyl-d14 (Surr)	*56*		*34 - 128*	*07/26/20 13:46*	*07/27/20 17:03*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**1.9**	**J**	5.0	1.0	ug/L		07/24/20 08:09	07/24/20 17:16	1
Ethene (1C)	ND		5.0	1.0	ug/L		07/24/20 08:09	07/24/20 17:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*50*		*28 - 140*	*07/24/20 08:09*	*07/24/20 17:16*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**5300**		100	60	ug/L		07/28/20 08:54	07/28/20 13:14	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*97*		*28 - 140*	*07/28/20 08:54*	*07/28/20 13:14*	*20*

Client Sample ID: CD-6A-W-19.0-20200722

Lab Sample ID: 410-8574-1

Date Collected: 07/22/20 14:30

Matrix: Water

Date Received: 07/23/20 18:58

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	0.67		0.096	0.035	mg/L		07/29/20 20:55	07/31/20 22:17	1
>C22-C44 (1C)	0.45		0.096	0.035	mg/L		07/29/20 20:55	07/31/20 22:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*37*		*21 - 116*	*07/29/20 20:55*	*07/31/20 22:17*	*1*
o- terphenyl (Surr) (1C)	*83*		*51 - 126*	*07/29/20 20:55*	*07/31/20 22:17*	*1*

Method: Total TPH - Total TPH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Reported TPH	1.1		0.20	0.074	mg/L			08/11/20 11:58	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	0.51		0.50	0.25	mg/L			07/24/20 11:24	5

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	61		0.32	0.039	mg/L			08/02/20 18:02	1
Sulfate	75		0.48	0.16	mg/L			08/02/20 18:02	1

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	63		0.20	0.096	mg/L		07/24/20 09:48	07/29/20 22:49	1
Iron	6.2		0.20	0.040	mg/L		07/24/20 09:48	07/29/20 22:49	1
Magnesium	31		0.10	0.040	mg/L		07/24/20 09:48	07/29/20 22:49	1
Potassium	5.9		0.50	0.20	mg/L		07/24/20 09:48	07/29/20 22:49	1
Sodium	120		1.0	0.24	mg/L		07/24/20 09:48	07/31/20 17:48	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		07/28/20 14:32	07/31/20 17:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	410		8.0	8.0	mg/L			07/25/20 01:33	1
Ammonia-N	0.78	J	1.1	0.36	mg/L		08/03/20 08:44	08/03/20 10:22	1
Sulfide	ND		0.30	0.10	mg/L			07/28/20 12:53	1

Client Sample ID: CD-6A-W-44.0-20200723

Lab Sample ID: 410-8574-2

Date Collected: 07/23/20 14:30

Matrix: Water

Date Received: 07/23/20 18:58

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	140		25	5.0	ug/L			07/31/20 12:13	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			07/31/20 12:13	5
1,3,5-Trimethylbenzene	48		25	1.5	ug/L			07/31/20 12:13	5
Benzene	220		5.0	1.0	ug/L			07/31/20 12:13	5
C4-C12-TPH-GRO	6600		250	150	ug/L			07/31/20 12:13	5
Ethylbenzene	78		5.0	2.0	ug/L			07/31/20 12:13	5
Isopropylbenzene	12	J	25	1.0	ug/L			07/31/20 12:13	5
Methyl tertiary butyl ether	ND		5.0	1.0	ug/L			07/31/20 12:13	5

Client Sample ID: CD-6A-W-44.0-20200723

Date Collected: 07/23/20 14:30
Date Received: 07/23/20 18:58

Lab Sample ID: 410-8574-2

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	**230**		5.0	1.0	ug/L			07/31/20 12:13	5
Xylenes, Total	**460**		30	7.0	ug/L			07/31/20 12:13	5
2-Methyl-2-propanol	ND		250	60	ug/L			07/31/20 12:13	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*		*07/31/20 12:13*	*5*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*07/31/20 12:13*	*5*
Dibromofluoromethane (Surr)	*106*		*80 - 120*		*07/31/20 12:13*	*5*
Toluene-d8 (Surr)	*92*		*80 - 120*		*07/31/20 12:13*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.51	0.10	ug/L		07/29/20 16:09	08/03/20 04:34	1
Benzo[a]anthracene	ND	B	0.51	0.10	ug/L		07/29/20 16:09	08/03/20 04:34	1
Benzo[a]pyrene	ND		0.51	0.10	ug/L		07/29/20 16:09	08/03/20 04:34	1
Benzo[b]fluoranthene	ND	B	0.51	0.10	ug/L		07/29/20 16:09	08/03/20 04:34	1
Benzo[g,h,i]perylene	ND		0.51	0.10	ug/L		07/29/20 16:09	08/03/20 04:34	1
Chrysene	ND	B	0.51	0.10	ug/L		07/29/20 16:09	08/03/20 04:34	1
Fluorene	ND		0.51	0.10	ug/L		07/29/20 16:09	08/03/20 04:34	1
Naphthalene	**19**		0.51	0.10	ug/L		07/29/20 16:09	08/03/20 04:34	1
Phenanthrene	ND		0.51	0.10	ug/L		07/29/20 16:09	08/03/20 04:34	1
Pyrene	ND		0.51	0.10	ug/L		07/29/20 16:09	08/03/20 04:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*64*		*44 - 102*	*07/29/20 16:09*	*08/03/20 04:34*	*1*
Nitrobenzene-d5 (Surr)	*77*		*38 - 113*	*07/29/20 16:09*	*08/03/20 04:34*	*1*
p-Terphenyl-d14 (Surr)	*12*	*XL*	*34 - 128*	*07/29/20 16:09*	*08/03/20 04:34*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		07/24/20 08:09	07/24/20 17:34	1
Ethene (1C)	ND		5.0	1.0	ug/L		07/24/20 08:09	07/24/20 17:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*58*		*28 - 140*	*07/24/20 08:09*	*07/24/20 17:34*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**5600**		100	60	ug/L		07/28/20 08:54	07/28/20 14:12	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*87*		*28 - 140*	*07/28/20 08:54*	*07/28/20 14:12*	*20*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	**1.4**		0.094	0.035	mg/L		07/29/20 20:55	07/31/20 22:39	1
>C22-C44 (1C)	**0.27**		0.094	0.035	mg/L		07/29/20 20:55	07/31/20 22:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*43*		*21 - 116*	*07/29/20 20:55*	*07/31/20 22:39*	*1*
o- terphenyl (Surr) (1C)	*58*		*51 - 126*	*07/29/20 20:55*	*07/31/20 22:39*	*1*

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8574-1

Client Sample ID: CD-6A-W-44.0-20200723

Date Collected: 07/23/20 14:30
Date Received: 07/23/20 18:58

Lab Sample ID: 410-8574-2

Matrix: Water

Method: Total TPH - Total TPH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Reported TPH	1.7		0.20	0.074	mg/L			08/11/20 11:58	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	0.056	J	0.10	0.050	mg/L			07/24/20 13:20	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1000		8.0	0.98	mg/L			08/03/20 14:10	25
Sulfate	26		2.4	0.79	mg/L			08/02/20 18:17	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	53		0.20	0.096	mg/L		07/24/20 09:48	07/29/20 22:58	1
Iron	7.4		0.20	0.040	mg/L		07/24/20 09:48	07/29/20 22:58	1
Magnesium	39		0.10	0.040	mg/L		07/24/20 09:48	07/29/20 22:58	1
Potassium	10		0.50	0.20	mg/L		07/24/20 09:48	07/29/20 22:58	1
Sodium	900		5.0	1.2	mg/L		07/24/20 09:48	07/31/20 17:51	5

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		07/28/20 14:32	07/31/20 17:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	170		8.0	8.0	mg/L			07/25/20 01:26	1
Ammonia-N	0.87	J	1.1	0.36	mg/L		08/03/20 08:44	08/03/20 10:22	1
Sulfide	ND		0.30	0.10	mg/L			07/28/20 12:53	1

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8574-1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-8574-1	CD-6A-W-19.0-20200722	88	98	107	92
410-8574-2	CD-6A-W-44.0-20200723	88	99	106	92
LCS 410-28329/6	Lab Control Sample	91	98	105	91
LCS 410-28329/8	Lab Control Sample	86	98	104	92
LCSD 410-28329/7	Lab Control Sample Dup	91	97	105	91
LCSD 410-28329/9	Lab Control Sample Dup	86	99	106	92
MB 410-28329/5	Method Blank	88	96	106	89

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(44-102)	(38-113)	(34-128)
410-8574-1	CD-6A-W-19.0-20200722	57	56	56
410-8574-2	CD-6A-W-44.0-20200723	64	77	12 XL
LCS 410-26468/2-A	Lab Control Sample	73	72	80
LCS 410-27686/2-A	Lab Control Sample	75	90	77
LCSD 410-26468/3-A	Lab Control Sample Dup	79	76	89
MB 410-26468/1-A	Method Blank	55	54	70
MB 410-27686/1-A	Method Blank	68	91	77

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		Propene1
Lab Sample ID	Client Sample ID	(28-140)
410-8574-1	CD-6A-W-19.0-20200722	50
410-8574-1 - DL	CD-6A-W-19.0-20200722	97
410-8574-2	CD-6A-W-44.0-20200723	58
410-8574-2 - DL	CD-6A-W-44.0-20200723	87
LCS 410-25916/2-A	Lab Control Sample	95
LCS 410-27035/2-A	Lab Control Sample	98
LCSD 410-25916/3-A	Lab Control Sample Dup	95
LCSD 410-27035/3-A	Lab Control Sample Dup	96
MB 410-25916/1-A	Method Blank	96
MB 410-27035/1-A	Method Blank	96

Surrogate Legend

Propene = Propene

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8574-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	CBNZ1 (21-116)	OTP1 (51-126)
410-8574-1	CD-6A-W-19.0-20200722	37	83
410-8574-2	CD-6A-W-44.0-20200723	43	58
LCS 410-27797/2-A	Lab Control Sample	72	96
LCSD 410-27797/3-A	Lab Control Sample Dup	74	100
MB 410-27797/1-A	Method Blank	80	92

Surrogate Legend

CBNZ = Chlorobenzene (Surr)
OTP = o- terphenyl (Surr)

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-28329/5
Matrix: Water
Analysis Batch: 28329

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			07/31/20 09:36	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			07/31/20 09:36	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			07/31/20 09:36	1
Benzene	ND		1.0	0.20	ug/L			07/31/20 09:36	1
C4-C12-TPH-GRO	ND		50	29	ug/L			07/31/20 09:36	1
Ethylbenzene	ND		1.0	0.40	ug/L			07/31/20 09:36	1
Isopropylbenzene	ND		5.0	0.20	ug/L			07/31/20 09:36	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			07/31/20 09:36	1
Toluene	ND		1.0	0.20	ug/L			07/31/20 09:36	1
Xylenes, Total	ND		6.0	1.4	ug/L			07/31/20 09:36	1
2-Methyl-2-propanol	ND		50	12	ug/L			07/31/20 09:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*		*07/31/20 09:36*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*07/31/20 09:36*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 120*		*07/31/20 09:36*	*1*
Toluene-d8 (Surr)	*89*		*80 - 120*		*07/31/20 09:36*	*1*

Lab Sample ID: LCS 410-28329/6
Matrix: Water
Analysis Batch: 28329

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	20.0	15.6		ug/L		78	75 - 120
1,2-Dichloroethane	20.0	18.4		ug/L		92	73 - 124
1,3,5-Trimethylbenzene	20.0	16.0		ug/L		80	75 - 120
Benzene	20.0	20.2		ug/L		101	80 - 120
Ethylbenzene	20.0	17.1		ug/L		86	80 - 120
Isopropylbenzene	20.0	17.2		ug/L		86	80 - 120
Methyl tertiary butyl ether	20.0	17.9		ug/L		90	69 - 122
Naphthalene	20.0	12.6		ug/L		63	53 - 124
Toluene	20.0	17.4		ug/L		87	80 - 120
Xylenes, Total	60.0	53.0		ug/L		88	80 - 120
2-Methyl-2-propanol	200	156		ug/L		78	60 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*91*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*105*		*80 - 120*
Toluene-d8 (Surr)	*91*		*80 - 120*

Lab Sample ID: LCS 410-28329/8
Matrix: Water
Analysis Batch: 28329

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C4-C12-TPH-GRO	1000	999		ug/L		100	67 - 120

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-28329/8
Matrix: Water
Analysis Batch: 28329

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*86*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*104*		*80 - 120*
Toluene-d8 (Surr)	*92*		*80 - 120*

Lab Sample ID: LCSD 410-28329/7
Matrix: Water
Analysis Batch: 28329

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene			20.0	18.0		ug/L		90	75 - 120	14	30
1,2-Dichloroethane			20.0	19.7		ug/L		99	73 - 124	7	30
1,3,5-Trimethylbenzene			20.0	17.5		ug/L		88	75 - 120	9	30
Benzene			20.0	21.9		ug/L		109	80 - 120	8	30
Ethylbenzene			20.0	18.9		ug/L		94	80 - 120	10	30
Isopropylbenzene			20.0	18.7		ug/L		93	80 - 120	8	30
Methyl tertiary butyl ether			20.0	19.3		ug/L		97	69 - 122	8	30
Naphthalene			20.0	15.4		ug/L		77	53 - 124	20	30
Toluene			20.0	19.0		ug/L		95	80 - 120	9	30
Xylenes, Total			60.0	56.8		ug/L		95	80 - 120	7	30
2-Methyl-2-propanol			200	176		ug/L		88	60 - 130	12	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*91*		*80 - 120*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Dibromofluoromethane (Surr)	*105*		*80 - 120*
Toluene-d8 (Surr)	*91*		*80 - 120*

Lab Sample ID: LCSD 410-28329/9
Matrix: Water
Analysis Batch: 28329

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C4-C12-TPH-GRO			1000	986		ug/L		99	67 - 120	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*86*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*106*		*80 - 120*
Toluene-d8 (Surr)	*92*		*80 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-26468/1-A
Matrix: Water
Analysis Batch: 26558

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 26468

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		07/26/20 13:46	07/27/20 09:38	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		07/26/20 13:46	07/27/20 09:38	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		07/26/20 13:46	07/27/20 09:38	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		07/26/20 13:46	07/27/20 09:38	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		07/26/20 13:46	07/27/20 09:38	1
Chrysene	ND		0.50	0.10	ug/L		07/26/20 13:46	07/27/20 09:38	1
Fluorene	ND		0.50	0.10	ug/L		07/26/20 13:46	07/27/20 09:38	1
Naphthalene	ND		0.50	0.10	ug/L		07/26/20 13:46	07/27/20 09:38	1
Phenanthrene	ND		0.50	0.10	ug/L		07/26/20 13:46	07/27/20 09:38	1
Pyrene	ND		0.50	0.10	ug/L		07/26/20 13:46	07/27/20 09:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*55*		*44 - 102*	*07/26/20 13:46*	*07/27/20 09:38*	*1*
Nitrobenzene-d5 (Surr)	*54*		*38 - 113*	*07/26/20 13:46*	*07/27/20 09:38*	*1*
p-Terphenyl-d14 (Surr)	*70*		*34 - 128*	*07/26/20 13:46*	*07/27/20 09:38*	*1*

Lab Sample ID: LCS 410-26468/2-A
Matrix: Water
Analysis Batch: 26558

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26468

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Anthracene			50.1	41.6		ug/L		83	67 - 116		
Benzo[a]anthracene			50.0	45.0		ug/L		90	68 - 123		
Benzo[a]pyrene			50.2	41.8		ug/L		83	71 - 117		
Benzo[b]fluoranthene			50.1	43.0		ug/L		86	69 - 121		
Benzo[g,h,i]perylene			50.1	44.8		ug/L		90	60 - 119		
Chrysene			50.0	42.5		ug/L		85	65 - 121		
Fluorene			50.1	39.8		ug/L		79	56 - 115		
Naphthalene			50.4	37.1		ug/L		74	51 - 102		
Phenanthrene			50.2	43.0		ug/L		86	65 - 113		
Pyrene			50.4	41.9		ug/L		83	65 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*73*		*44 - 102*
Nitrobenzene-d5 (Surr)	*72*		*38 - 113*
p-Terphenyl-d14 (Surr)	*80*		*34 - 128*

Lab Sample ID: LCSD 410-26468/3-A
Matrix: Water
Analysis Batch: 26558

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 26468

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Anthracene			50.1	45.0		ug/L		90	67 - 116	8	30
Benzo[a]anthracene			50.0	50.7		ug/L		101	68 - 123	12	30
Benzo[a]pyrene			50.2	45.9		ug/L		91	71 - 117	9	30
Benzo[b]fluoranthene			50.1	46.5		ug/L		93	69 - 121	8	30
Benzo[g,h,i]perylene			50.1	49.5		ug/L		99	60 - 119	10	30
Chrysene			50.0	47.8		ug/L		95	65 - 121	12	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-26468/3-A
Matrix: Water
Analysis Batch: 26558

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 26468

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluorene			50.1	42.4		ug/L		85	56 - 115	6	30
Naphthalene			50.4	39.0		ug/L		77	51 - 102	5	30
Phenanthrene			50.2	45.4		ug/L		90	65 - 113	5	30
Pyrene			50.4	45.2		ug/L		90	65 - 115	8	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*79*		*44 - 102*
Nitrobenzene-d5 (Surr)	*76*		*38 - 113*
p-Terphenyl-d14 (Surr)	*89*		*34 - 128*

Lab Sample ID: MB 410-27686/1-A
Matrix: Water
Analysis Batch: 27912

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27686

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		07/29/20 16:09	07/30/20 11:02	1
Benzo[a]anthracene	0.172	J B	0.50	0.10	ug/L		07/29/20 16:09	07/30/20 11:02	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		07/29/20 16:09	07/30/20 11:02	1
Benzo[b]fluoranthene	0.337	J B	0.50	0.10	ug/L		07/29/20 16:09	07/30/20 11:02	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		07/29/20 16:09	07/30/20 11:02	1
Chrysene	0.206	J B	0.50	0.10	ug/L		07/29/20 16:09	07/30/20 11:02	1
Fluorene	ND		0.50	0.10	ug/L		07/29/20 16:09	07/30/20 11:02	1
Naphthalene	ND		0.50	0.10	ug/L		07/29/20 16:09	07/30/20 11:02	1
Phenanthrene	ND		0.50	0.10	ug/L		07/29/20 16:09	07/30/20 11:02	1
Pyrene	ND		0.50	0.10	ug/L		07/29/20 16:09	07/30/20 11:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*68*		*44 - 102*	*07/29/20 16:09*	*07/30/20 11:02*	*1*
Nitrobenzene-d5 (Surr)	*91*		*38 - 113*	*07/29/20 16:09*	*07/30/20 11:02*	*1*
p-Terphenyl-d14 (Surr)	*77*		*34 - 128*	*07/29/20 16:09*	*07/30/20 11:02*	*1*

Lab Sample ID: LCS 410-27686/2-A
Matrix: Water
Analysis Batch: 27912

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27686

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene			50.1	40.8		ug/L		81	67 - 116
Benzo[a]anthracene			50.0	42.6		ug/L		85	68 - 123
Benzo[a]pyrene			50.2	42.6		ug/L		85	71 - 117
Benzo[b]fluoranthene			50.1	46.5		ug/L		93	69 - 121
Benzo[g,h,i]perylene			50.1	39.7		ug/L		79	60 - 119
Chrysene			50.0	40.1		ug/L		80	65 - 121
Fluorene			50.1	42.5		ug/L		85	56 - 115
Naphthalene			50.4	39.3		ug/L		78	51 - 102
Phenanthrene			50.2	41.3		ug/L		82	65 - 113
Pyrene			50.4	43.2		ug/L		86	65 - 115

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-27686/2-A
Matrix: Water
Analysis Batch: 27912

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27686

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*75*		*44 - 102*
Nitrobenzene-d5 (Surr)	*90*		*38 - 113*
p-Terphenyl-d14 (Surr)	*77*		*34 - 128*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-25916/1-A
Matrix: Water
Analysis Batch: 25921

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25916

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		07/24/20 08:09	07/24/20 13:52	1
Ethene (1C)	ND		5.0	1.0	ug/L		07/24/20 08:09	07/24/20 13:52	1
Methane (1C)	ND		5.0	3.0	ug/L		07/24/20 08:09	07/24/20 13:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*96*		*28 - 140*	*07/24/20 08:09*	*07/24/20 13:52*	*1*

Lab Sample ID: LCS 410-25916/2-A
Matrix: Water
Analysis Batch: 25921

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25916

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	55.6		ug/L		94	85 - 115		
Ethene (1C)			60.4	57.9		ug/L		96	83 - 115		
Methane (1C)			59.4	59.2		ug/L		100	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*95*		*28 - 140*

Lab Sample ID: LCSD 410-25916/3-A
Matrix: Water
Analysis Batch: 25921

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 25916

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	56.2		ug/L		95	85 - 115	1	20
Ethene (1C)			60.4	57.6		ug/L		95	83 - 115	0	20
Methane (1C)			59.4	59.7		ug/L		101	85 - 115	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*95*		*28 - 140*

Lab Sample ID: MB 410-27035/1-A
Matrix: Water
Analysis Batch: 27054

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27035

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		07/28/20 08:54	07/28/20 10:09	1

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: MB 410-27035/1-A
Matrix: Water
Analysis Batch: 27054

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27035

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethene (1C)	ND		5.0	1.0	ug/L		07/28/20 08:54	07/28/20 10:09	1
Methane (1C)	ND		5.0	3.0	ug/L		07/28/20 08:54	07/28/20 10:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*96*		*28 - 140*	*07/28/20 08:54*	*07/28/20 10:09*	*1*

Lab Sample ID: LCS 410-27035/2-A
Matrix: Water
Analysis Batch: 27054

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27035

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	57.3		ug/L		96	85 - 115		
Ethene (1C)			60.4	59.6		ug/L		99	83 - 115		
Methane (1C)			59.4	60.9		ug/L		102	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*98*		*28 - 140*

Lab Sample ID: LCSD 410-27035/3-A
Matrix: Water
Analysis Batch: 27054

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 27035

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	56.6		ug/L		95	85 - 115	1	20
Ethene (1C)			60.4	58.1		ug/L		96	83 - 115	3	20
Methane (1C)			59.4	60.3		ug/L		102	85 - 115	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*96*		*28 - 140*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 410-27797/1-A
Matrix: Water
Analysis Batch: 29384

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27797

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		0.10	0.037	mg/L		07/29/20 20:55	07/31/20 21:13	1
>C22-C44 (1C)	ND		0.10	0.037	mg/L		07/29/20 20:55	07/31/20 21:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*80*		*21 - 116*	*07/29/20 20:55*	*07/31/20 21:13*	*1*
o- terphenyl (Surr) (1C)	*92*		*51 - 126*	*07/29/20 20:55*	*07/31/20 21:13*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: LCS 410-27797/2-A
Matrix: Water
Analysis Batch: 29384

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27797

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
DRO (C10-C28) (1C)			0.800	0.601		mg/L		75	48 - 116		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Chlorobenzene (Surr) (1C)	*72*		*21 - 116*
o- terphenyl (Surr) (1C)	*96*		*51 - 126*

Lab Sample ID: LCSD 410-27797/3-A
Matrix: Water
Analysis Batch: 29384

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 27797

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (C10-C28) (1C)			0.800	0.628		mg/L		78	48 - 116	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Chlorobenzene (Surr) (1C)	*74*		*21 - 116*
o- terphenyl (Surr) (1C)	*100*		*51 - 126*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Lab Sample ID: MB 410-26010/4
Matrix: Water
Analysis Batch: 26010

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND		0.10	0.050	mg/L			07/24/20 11:08	1

Lab Sample ID: LCS 410-26010/3
Matrix: Water
Analysis Batch: 26010

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrogen, Nitrate			0.750	0.725		mg/L		97	90 - 110		

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 460-713465/3
Matrix: Water
Analysis Batch: 713465

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.32	0.039	mg/L			08/02/20 13:53	1
Sulfate	ND		0.48	0.16	mg/L			08/02/20 13:53	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 460-713465/5
Matrix: Water
Analysis Batch: 713465

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			3.20	3.08		mg/L		96	90 - 110		
Sulfate			4.80	4.71		mg/L		98	90 - 110		

Lab Sample ID: LCSD 460-713465/6
Matrix: Water
Analysis Batch: 713465

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			3.20	3.01		mg/L		94	90 - 110	2	15
Sulfate			4.80	4.49		mg/L		94	90 - 110	5	15

Lab Sample ID: MB 460-713663/3
Matrix: Water
Analysis Batch: 713663

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.32	0.039	mg/L			08/03/20 12:11	1
Sulfate	ND		0.48	0.16	mg/L			08/03/20 12:11	1

Lab Sample ID: LCS 460-713663/5
Matrix: Water
Analysis Batch: 713663

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			3.20	3.20		mg/L		100	90 - 110		
Sulfate			4.80	4.87		mg/L		101	90 - 110		

Lab Sample ID: LCSD 460-713663/6
Matrix: Water
Analysis Batch: 713663

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			3.20	3.24		mg/L		101	90 - 110	1	15
Sulfate			4.80	4.78		mg/L		100	90 - 110	2	15

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-25987/1-A
Matrix: Water
Analysis Batch: 27842

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 25987

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.20	0.096	mg/L		07/24/20 09:48	07/29/20 21:39	1
Iron	ND		0.20	0.040	mg/L		07/24/20 09:48	07/29/20 21:39	1
Magnesium	ND		0.10	0.040	mg/L		07/24/20 09:48	07/29/20 21:39	1
Potassium	ND		0.50	0.20	mg/L		07/24/20 09:48	07/29/20 21:39	1
Sodium	ND		1.0	0.24	mg/L		07/24/20 09:48	07/29/20 21:39	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 410-25987/2-A
Matrix: Water
Analysis Batch: 27842

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 25987

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	0.400	0.392		mg/L		98	80 - 120
Iron	0.402	0.395		mg/L		98	80 - 120
Potassium	5.60	5.88		mg/L		105	80 - 120

Lab Sample ID: LCS 410-25987/2-A
Matrix: Water
Analysis Batch: 28659

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 25987

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sodium	2.00	2.07		mg/L		104	80 - 120

Lab Sample ID: LCS 410-25987/2-A
Matrix: Water
Analysis Batch: 29923

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 25987

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Magnesium	0.200	0.230		mg/L		115	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 410-27200/1-A
Matrix: Water
Analysis Batch: 28928

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27200

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		07/28/20 14:32	07/31/20 17:09	1

Lab Sample ID: LCS 410-27200/2-A
Matrix: Water
Analysis Batch: 28928

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27200

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	4.92	4.98		ug/L		101	90 - 115

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 410-26797/55
Matrix: Water
Analysis Batch: 26797

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8.0	8.0	mg/L			07/25/20 00:11	1

Lab Sample ID: LCS 410-26797/56
Matrix: Water
Analysis Batch: 26797

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	189	167		mg/L		88	82 - 106

Method: 4500 NH3 C-2011 - Ammonia

Lab Sample ID: MB 410-28916/1-A
Matrix: Water
Analysis Batch: 28971

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 28916

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia-N	ND		0.75	0.25	mg/L		08/03/20 08:44	08/03/20 10:22	1

Lab Sample ID: LCS 410-28916/2-A
Matrix: Water
Analysis Batch: 28971

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 28916

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia-N	500	491		mg/L		98	93 - 100

Method: 4500 S2 D-2011 - Sulfide, Total

Lab Sample ID: MB 410-27155/1
Matrix: Water
Analysis Batch: 27155

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.30	0.10	mg/L			07/28/20 12:53	1

Lab Sample ID: LCS 410-27155/13
Matrix: Water
Analysis Batch: 27155

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	1.00	1.04		mg/L		104	90 - 110

Lab Sample ID: 410-8574-1 MS
Matrix: Water
Analysis Batch: 27155

Client Sample ID: CD-6A-W-19.0-20200722
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	ND		0.476	0.479		mg/L		101	90 - 110

Lab Sample ID: 410-8574-1 MSD
Matrix: Water
Analysis Batch: 27155

Client Sample ID: CD-6A-W-19.0-20200722
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfide	ND		0.476	0.481		mg/L		101	90 - 110	0	29

Lab Sample ID: 410-8574-1 DU
Matrix: Water
Analysis Batch: 27155

Client Sample ID: CD-6A-W-19.0-20200722
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfide	ND		ND		mg/L		NC	5

GC/MS VOA

Analysis Batch: 28329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8574-1	CD-6A-W-19.0-20200722	Total/NA	Water	8260C/UST	
410-8574-2	CD-6A-W-44.0-20200723	Total/NA	Water	8260C/UST	
MB 410-28329/5	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-28329/6	Lab Control Sample	Total/NA	Water	8260C/UST	
LCS 410-28329/8	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-28329/7	Lab Control Sample Dup	Total/NA	Water	8260C/UST	
LCSD 410-28329/9	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

GC/MS Semi VOA

Prep Batch: 26468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8574-1	CD-6A-W-19.0-20200722	Total/NA	Water	3510C	
MB 410-26468/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-26468/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-26468/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 26558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8574-1	CD-6A-W-19.0-20200722	Total/NA	Water	8270D	26468
MB 410-26468/1-A	Method Blank	Total/NA	Water	8270D	26468
LCS 410-26468/2-A	Lab Control Sample	Total/NA	Water	8270D	26468
LCSD 410-26468/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	26468

Prep Batch: 27686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8574-2	CD-6A-W-44.0-20200723	Total/NA	Water	3510C	
MB 410-27686/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-27686/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 27912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-27686/1-A	Method Blank	Total/NA	Water	8270D	27686
LCS 410-27686/2-A	Lab Control Sample	Total/NA	Water	8270D	27686

Analysis Batch: 28778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8574-2	CD-6A-W-44.0-20200723	Total/NA	Water	8270D	27686

GC VOA

Prep Batch: 25916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8574-1	CD-6A-W-19.0-20200722	Total/NA	Water	RSK-175	
410-8574-2	CD-6A-W-44.0-20200723	Total/NA	Water	RSK-175	
MB 410-25916/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-25916/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-25916/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 25921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8574-1	CD-6A-W-19.0-20200722	Total/NA	Water	RSK-175	25916

GC VOA (Continued)

Analysis Batch: 25921 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8574-2	CD-6A-W-44.0-20200723	Total/NA	Water	RSK-175	25916
MB 410-25916/1-A	Method Blank	Total/NA	Water	RSK-175	25916
LCS 410-25916/2-A	Lab Control Sample	Total/NA	Water	RSK-175	25916
LCSD 410-25916/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	25916

Prep Batch: 27035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8574-1 - DL	CD-6A-W-19.0-20200722	Total/NA	Water	RSK-175	
410-8574-2 - DL	CD-6A-W-44.0-20200723	Total/NA	Water	RSK-175	
MB 410-27035/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-27035/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-27035/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 27054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8574-1 - DL	CD-6A-W-19.0-20200722	Total/NA	Water	RSK-175	27035
410-8574-2 - DL	CD-6A-W-44.0-20200723	Total/NA	Water	RSK-175	27035
MB 410-27035/1-A	Method Blank	Total/NA	Water	RSK-175	27035
LCS 410-27035/2-A	Lab Control Sample	Total/NA	Water	RSK-175	27035
LCSD 410-27035/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	27035

GC Semi VOA

Prep Batch: 27797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8574-1	CD-6A-W-19.0-20200722	Total/NA	Water	3510C	
410-8574-2	CD-6A-W-44.0-20200723	Total/NA	Water	3510C	
MB 410-27797/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-27797/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-27797/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 29384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8574-1	CD-6A-W-19.0-20200722	Total/NA	Water	8015C	27797
410-8574-2	CD-6A-W-44.0-20200723	Total/NA	Water	8015C	27797
MB 410-27797/1-A	Method Blank	Total/NA	Water	8015C	27797
LCS 410-27797/2-A	Lab Control Sample	Total/NA	Water	8015C	27797
LCSD 410-27797/3-A	Lab Control Sample Dup	Total/NA	Water	8015C	27797

Analysis Batch: 31867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8574-1	CD-6A-W-19.0-20200722	Total/NA	Water	Total TPH	
410-8574-2	CD-6A-W-44.0-20200723	Total/NA	Water	Total TPH	

HPLC/IC

Analysis Batch: 26010

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8574-1	CD-6A-W-19.0-20200722	Total/NA	Water	EPA 300.0 R2.1	
410-8574-2	CD-6A-W-44.0-20200723	Total/NA	Water	EPA 300.0 R2.1	
MB 410-26010/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-26010/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

HPLC/IC

Analysis Batch: 713465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8574-1	CD-6A-W-19.0-20200722	Total/NA	Water	EPA 300.0 R2.1	
410-8574-2	CD-6A-W-44.0-20200723	Total/NA	Water	EPA 300.0 R2.1	
MB 460-713465/3	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 460-713465/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCSD 460-713465/6	Lab Control Sample Dup	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 713663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8574-2	CD-6A-W-44.0-20200723	Total/NA	Water	EPA 300.0 R2.1	
MB 460-713663/3	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 460-713663/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCSD 460-713663/6	Lab Control Sample Dup	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 25987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8574-1	CD-6A-W-19.0-20200722	Total Recoverable	Water	3005A	
410-8574-2	CD-6A-W-44.0-20200723	Total Recoverable	Water	3005A	
MB 410-25987/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-25987/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Filtration Batch: 27171

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8574-1	CD-6A-W-19.0-20200722	Dissolved	Water	Filtration	
410-8574-2	CD-6A-W-44.0-20200723	Dissolved	Water	Filtration	

Prep Batch: 27200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8574-1	CD-6A-W-19.0-20200722	Dissolved	Water	Non-Digest Prep	27171
410-8574-2	CD-6A-W-44.0-20200723	Dissolved	Water	Non-Digest Prep	27171
MB 410-27200/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-27200/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	

Analysis Batch: 27842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8574-1	CD-6A-W-19.0-20200722	Total Recoverable	Water	6010C	25987
410-8574-2	CD-6A-W-44.0-20200723	Total Recoverable	Water	6010C	25987
MB 410-25987/1-A	Method Blank	Total Recoverable	Water	6010C	25987
LCS 410-25987/2-A	Lab Control Sample	Total Recoverable	Water	6010C	25987

Analysis Batch: 28659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8574-1	CD-6A-W-19.0-20200722	Total Recoverable	Water	6010C	25987
410-8574-2	CD-6A-W-44.0-20200723	Total Recoverable	Water	6010C	25987
LCS 410-25987/2-A	Lab Control Sample	Total Recoverable	Water	6010C	25987

Analysis Batch: 28928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8574-1	CD-6A-W-19.0-20200722	Dissolved	Water	6020A	27200
410-8574-2	CD-6A-W-44.0-20200723	Dissolved	Water	6020A	27200

Metals (Continued)

Analysis Batch: 28928 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-27200/1-A	Method Blank	Total/NA	Water	6020A	27200
LCS 410-27200/2-A	Lab Control Sample	Total/NA	Water	6020A	27200

Analysis Batch: 29923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-25987/2-A	Lab Control Sample	Total Recoverable	Water	6010C	25987

General Chemistry

Analysis Batch: 26797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8574-1	CD-6A-W-19.0-20200722	Total/NA	Water	2320B-2011	
410-8574-2	CD-6A-W-44.0-20200723	Total/NA	Water	2320B-2011	
MB 410-26797/55	Method Blank	Total/NA	Water	2320B-2011	
LCS 410-26797/56	Lab Control Sample	Total/NA	Water	2320B-2011	

Analysis Batch: 27155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8574-1	CD-6A-W-19.0-20200722	Total/NA	Water	4500 S2 D-2011	
410-8574-2	CD-6A-W-44.0-20200723	Total/NA	Water	4500 S2 D-2011	
MB 410-27155/1	Method Blank	Total/NA	Water	4500 S2 D-2011	
LCS 410-27155/13	Lab Control Sample	Total/NA	Water	4500 S2 D-2011	
410-8574-1 MS	CD-6A-W-19.0-20200722	Total/NA	Water	4500 S2 D-2011	
410-8574-1 MSD	CD-6A-W-19.0-20200722	Total/NA	Water	4500 S2 D-2011	
410-8574-1 DU	CD-6A-W-19.0-20200722	Total/NA	Water	4500 S2 D-2011	

Prep Batch: 28916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8574-1	CD-6A-W-19.0-20200722	Total/NA	Water	4500 NH3 B-2011	
410-8574-2	CD-6A-W-44.0-20200723	Total/NA	Water	4500 NH3 B-2011	
MB 410-28916/1-A	Method Blank	Total/NA	Water	4500 NH3 B-2011	
LCS 410-28916/2-A	Lab Control Sample	Total/NA	Water	4500 NH3 B-2011	

Analysis Batch: 28971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8574-1	CD-6A-W-19.0-20200722	Total/NA	Water	4500 NH3 C-2011	28916
410-8574-2	CD-6A-W-44.0-20200723	Total/NA	Water	4500 NH3 C-2011	28916
MB 410-28916/1-A	Method Blank	Total/NA	Water	4500 NH3 C-2011	28916
LCS 410-28916/2-A	Lab Control Sample	Total/NA	Water	4500 NH3 C-2011	28916

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8574-1

Client Sample ID: CD-6A-W-19.0-20200722

Lab Sample ID: 410-8574-1

Date Collected: 07/22/20 14:30

Matrix: Water

Date Received: 07/23/20 18:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	28329	07/31/20 11:49	UKAD	ELLE
Total/NA	Prep	3510C			26468	07/26/20 13:46	OT54	ELLE
Total/NA	Analysis	8270D		1	26558	07/27/20 17:03	LW6J	ELLE
Total/NA	Prep	RSK-175			25916	07/24/20 08:09	IYN5	ELLE
Total/NA	Analysis	RSK-175		1	25921	07/24/20 17:16	IYN5	ELLE
Total/NA	Prep	RSK-175	DL		27035	07/28/20 08:54	IYN5	ELLE
Total/NA	Analysis	RSK-175	DL	20	27054	07/28/20 13:14	IYN5	ELLE
Total/NA	Prep	3510C			27797	07/29/20 20:55	K2IL	ELLE
Total/NA	Analysis	8015C		1	29384	07/31/20 22:17	YHQ2	ELLE
Total/NA	Analysis	Total TPH		1	31867	08/11/20 11:58	KP5X	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	26010	07/24/20 11:24	GJ35	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		1	713465	08/02/20 18:02	VMI	TAL EDI
Total Recoverable	Prep	3005A			25987	07/24/20 09:48	UAMX	ELLE
Total Recoverable	Analysis	6010C		1	27842	07/29/20 22:49	UCIG	ELLE
Total Recoverable	Prep	3005A			25987	07/24/20 09:48	UAMX	ELLE
Total Recoverable	Analysis	6010C		1	28659	07/31/20 17:48	LR7D	ELLE
Dissolved	Filtration	Filtration			27171	07/28/20 13:27	UJLA	ELLE
Dissolved	Prep	Non-Digest Prep			27200	07/28/20 14:32	UJLA	ELLE
Dissolved	Analysis	6020A		1	28928	07/31/20 17:27	S2GN	ELLE
Total/NA	Analysis	2320B-2011		1	26797	07/25/20 01:33	DI9Q	ELLE
Total/NA	Prep	4500 NH3 B-2011			28916	08/03/20 08:44	UYB0	ELLE
Total/NA	Analysis	4500 NH3 C-2011		1	28971	08/03/20 10:22	UYB0	ELLE
Total/NA	Analysis	4500 S2 D-2011		1	27155	07/28/20 12:53	P8DZ	ELLE

Client Sample ID: CD-6A-W-44.0-20200723

Lab Sample ID: 410-8574-2

Date Collected: 07/23/20 14:30

Matrix: Water

Date Received: 07/23/20 18:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	28329	07/31/20 12:13	UKAD	ELLE
Total/NA	Prep	3510C			27686	07/29/20 16:09	DFX4	ELLE
Total/NA	Analysis	8270D		1	28778	08/03/20 04:34	ULM3	ELLE
Total/NA	Prep	RSK-175			25916	07/24/20 08:09	IYN5	ELLE
Total/NA	Analysis	RSK-175		1	25921	07/24/20 17:34	IYN5	ELLE
Total/NA	Prep	RSK-175	DL		27035	07/28/20 08:54	IYN5	ELLE
Total/NA	Analysis	RSK-175	DL	20	27054	07/28/20 14:12	IYN5	ELLE
Total/NA	Prep	3510C			27797	07/29/20 20:55	K2IL	ELLE
Total/NA	Analysis	8015C		1	29384	07/31/20 22:39	YHQ2	ELLE
Total/NA	Analysis	Total TPH		1	31867	08/11/20 11:58	KP5X	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		1	26010	07/24/20 13:20	GJ35	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	713465	08/02/20 18:17	VMI	TAL EDI
Total/NA	Analysis	EPA 300.0 R2.1		25	713663	08/03/20 14:10	VMI	TAL EDI

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8574-1

Client Sample ID: CD-6A-W-44.0-20200723

Date Collected: 07/23/20 14:30
Date Received: 07/23/20 18:58

Lab Sample ID: 410-8574-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			25987	07/24/20 09:48	UAMX	ELLE
Total Recoverable	Analysis	6010C		1	27842	07/29/20 22:58	UCIG	ELLE
Total Recoverable	Prep	3005A			25987	07/24/20 09:48	UAMX	ELLE
Total Recoverable	Analysis	6010C		5	28659	07/31/20 17:51	LR7D	ELLE
Dissolved	Filtration	Filtration			27171	07/28/20 13:27	UJLA	ELLE
Dissolved	Prep	Non-Digest Prep			27200	07/28/20 14:32	UJLA	ELLE
Dissolved	Analysis	6020A		1	28928	07/31/20 17:29	S2GN	ELLE
Total/NA	Analysis	2320B-2011		1	26797	07/25/20 01:26	DI9Q	ELLE
Total/NA	Prep	4500 NH3 B-2011			28916	08/03/20 08:44	UYB0	ELLE
Total/NA	Analysis	4500 NH3 C-2011		1	28971	08/03/20 10:22	UYB0	ELLE
Total/NA	Analysis	4500 S2 D-2011		1	27155	07/28/20 12:53	P8DZ	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: Stantec Consulting Corp. Job ID: 410-8574-1
Project/Site: PHL Penrose Drilling Sampling

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015C	3510C	Water	>C12-C22 (1C)
8015C	3510C	Water	>C22-C44 (1C)
Total TPH		Water	Total Reported TPH

Laboratory: Eurofins TestAmerica, Edison

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	68-00522	02-28-21

Method Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8574-1

Method	Method Description	Protocol	Laboratory
8260C/UST	Volatile Organic Compounds (GC/MS)	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
RSK-175	Dissolved Gases (GC)	RSK	ELLE
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	ELLE
Total TPH	Total TPH	None	ELLE
EPA 300.0 R2.1	Anions, Ion Chromatgraphy	EPA	ELLE
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	TAL EDI
6010C	Metals (ICP)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
2320B-2011	Alkalinity, Total	SM	ELLE
4500 NH3 C-2011	Ammonia	SM	ELLE
4500 S2 D-2011	Sulfide, Total	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
4500 NH3 B-2011	Ammonia, Distillation	SM	ELLE
5030C	Purge and Trap	SW846	ELLE
Filtration	Sample Filtration	None	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8574-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-8574-1	CD-6A-W-19.0-20200722	Water	07/22/20 14:30	07/23/20 18:58	
410-8574-2	CD-6A-W-44.0-20200723	Water	07/23/20 14:30	07/23/20 18:58	

Environmental Analysis Request and Chain of Custody

eurofins | Lancaster Laboratories Environmental

Acct. # _____

410-8574 Chain of Custody

Use only _____

COC # 608900

Client Information

Client: Evergreen c/o Stantec	Acct. #: 16657
Project Name/#: PHL Penrose Drilling Sampling	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 213402602
Sampler: Dane Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ | Water ☒ Potable ☐ Ground ☐ NPDES ☐ Surface ☐ | Other: _____

Analysis Requested

Preservation and Filtration Codes: H | N | O | H | S | H

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	Custom TPH w/ Ranges	TPH-GRO 8260/moisture	Metal CAD/Lead (dissolved 6020 + total 6010B)	Sulfide	Chloride, Nitrate Nitrogen, Sulfate	Volatile Headspace Hydrocarbons	Total Alkalinity to 4.5	Ammonia Nitrogen	*Short List VOCs 8260 including TBA 8260 + EDB8011	*Short List SVOCs 8270
CD-6A-W-19.0-20200722	7/22/20	1430	X		17	X	X	X	X	X	X	X	X	X	X
CD-6A-W-44.0-20200723	7/23/20	1430	X		17	X	X	X	X	X	X	X	X	X	X

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks

* refer to Evergreen Petroleum Short List for list of analytes

For Lab Use Only
FSC: _____
SCR#: _____

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: Andrew.Klingbeil@Stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)
Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13
NYSDEC Category A or B | MA MCP | CT RCP

Relinquished by	Date	Time	Received by	Date	Time
[signature]	7-23-20	1655	Mark D	7-23	1655
Mark D	7-23-20	1825			
				7-23-20	1858

EDD Required? Yes No
If yes, format: EQUIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____

Temperature upon receipt 1.0 °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT https://www.eurofinsus.com/coc

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0919

CJ KAM

8/26/2020

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Carter, Amek A	Carrier Tracking No(s):	COC No: 410-109924.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: amekcarter@eurofinsus.com	State of Origin: Pennsylvania	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Pennsylvania		Job #: 410-8574-1
Address: 777 New Durham Road, ,	Due Date Requested: 8/4/2020			
City: Edison	TAT Requested (days):			
State, Zip: NJ, 08817				
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	PO #:			
Email:	WO #:			
Project Name: PHL Penrose Drilling Sampling	Project #: 41002220			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D/ (MOD) Local Method	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
CD-6A-W-19.0-20200722 (410-8574-1)	7/22/20	14:30 Eastern		Water			X	1	
CD-6A-W-44.0-20200723 (410-8574-2)	7/23/20	14:30 Eastern		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Lancaster Laboratories Env places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Lancaster Laboratories Env laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Lancaster Laboratories Env attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Lancaster Laboratories Env.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	[signature]	7-24-2020 0944	ELLE	[signature]	7/24/20 12:00	ELLE
2	[signature]	7/24/20 12:30	ELLE	[signature]	7/24/20 1730	ETA
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

IR11 3.6°C, 3.8°C

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-8574-1

Login Number: 8574
List Number: 1
Creator: Jeremiah, Cory T

List Source: Eurofins Lancaster Laboratories Env

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-8574-1

Login Number: 8574
List Number: 2
Creator: Armbruster, Chris

List Source: Eurofins TestAmerica, Edison
List Creation: 07/28/20 12:04 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.6, 3.8°C IR11
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-8905-1
Client Project/Site: PHL Penrose Drilling Sampling

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Andrew Klingbeil

Bethany McDaniel

Authorized for release by:
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LINKS

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Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

* QC recoveries that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result.

* Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.

* Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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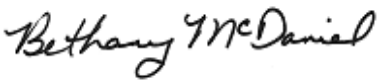

Bethany McDaniel
Senior Project Manager
9/10/2020 2:36:41 PM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 6
Detection Summary 7
Client Sample Results 8
Surrogate Summary 13
QC Sample Results 16
QC Association Summary 36
Lab Chronicle 40
Certification Summary 41
Method Summary 42
Sample Summary 43
Chain of Custody 44
Receipt Checklists 45

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
^c	CCV Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*L	LCS and/or LCSD recovery below control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
*L	LCS and/or LCSD recovery below control limits.
H	Sample was prepped or analyzed beyond the specified holding time
XL	Surrogate recovery is below control limits

Metals

Qualifier	Qualifier Description
*H	LCS and/or LCSD recovery above control limits.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-8905-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-8905-1

Receipt
The sample was received on 7/28/2020 3:55 PM; the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.9°C

GC/MS VOA
Method 8260C: The continuing calibration verification (CCV) associated with batch 410-29545 recovered outside acceptance criteria, low biased, for Trichlorofluoromethane. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported. The associated sample is: CD_AOI4_WC_20200727 (410-8905-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270D: In the first extraction, the laboratory control sample (LCS) for 410-28918 recovered outside the control limits for several analytes. The associated sample(s) was re-prepared and re-analyzed within holding time and the recoveries in the LCS are acceptable. The recovery for a sample surrogate from the second extraction is outside the control limits. The first set of data has been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Herbicides
Method 8151A: LCS for this batch recovered below the acceptance criteria for 2,4-D. The sample was non-detect for 2,4-D; the data has been flagged and reported.CD_AOI4_WC_20200727 (410-8905-1)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

PCBs
Method 8082A: Surrogate recovery was outside control limits for the following sample: CD_AOI4_WC_20200727 (410-8905-1). The following action was taken: The sample was re-extracted and the surrogate is again outside of the acceptance limits, indicating a matrix effect

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Pesticides
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
Method 6010C: The TCLP leachate blank for batch 410-27483 and 410-28078 contained Barium above the reporting limit (RL). This target analyte concentration was less than the TCLP Regulatory Limit. The associated samples were also below the TCLP Regulatory Limit for this analyte; therefore, re-extraction was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8905-1

Client Sample ID: CD_AOI4_WC_20200727

Lab Sample ID: 410-8905-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	2600		450	36	ug/Kg	50	☼	8260C	Total/NA
Methylcyclohexane	3300		450	54	ug/Kg	50	☼	8260C	Total/NA
Toluene	3200		450	54	ug/Kg	50	☼	8260C	Total/NA
Cyclohexane	1100		450	45	ug/Kg	50	☼	8260C	Total/NA
Xylenes, Total	15000		910	130	ug/Kg	50	☼	8260C	Total/NA
Benzene	490		450	45	ug/Kg	50	☼	8260C	Total/NA
Isopropylbenzene	200	J	450	36	ug/Kg	50	☼	8260C	Total/NA
Benzene	4.7	J	20	4.0	ug/L	20		8260C	TCLP
Naphthalene	430		28	11	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	10	J	28	5.7	ug/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	620		57	5.7	ug/Kg	1	☼	8270D	Total/NA
Lead	2.5		2.2	0.87	mg/Kg	1	☼	6010C	Total/NA
Arsenic	0.027	J	0.030	0.016	mg/L	1		6010C	TCLP
Barium	0.26	B	0.0050	0.0010	mg/L	1		6010C	TCLP
Chromium	0.0099	J	0.015	0.0016	mg/L	1		6010C	TCLP
Lead	0.024	B	0.015	0.0071	mg/L	1		6010C	TCLP
Ignitable to Air	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Flame	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Friction	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Water	No		1.0	1.0	NONE	1		261.21	Total/NA
pH	11.3		0.01	0.01	S.U.	1		9045D	Soluble
Temperature	19.7		0.01	0.01	Degrees C	1		9045D	Soluble
Corrosivity	no		0.01	0.01	NONE	1		9045D	Soluble

This Detection Summary does not include radiochemical test results.

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8905-1

Client Sample ID: CD_AOI4_WC_20200727
Date Collected: 07/27/20 14:30
Date Received: 07/28/20 15:55

Lab Sample ID: 410-8905-1
Matrix: Solid
Percent Solids: 58.6

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	ND		450	36	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
trans-1,3-Dichloropropene	ND		450	45	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
Ethylbenzene	**2600**		450	36	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
Styrene	ND		450	36	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
1,4-Dichlorobenzene	ND		450	36	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
1,2-Dibromoethane	ND		450	36	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
1,2-Dichloroethane	ND		450	54	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
4-Methyl-2-pentanone	ND		910	91	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
Methylcyclohexane	**3300**		450	54	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
Toluene	**3200**		450	54	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
Chlorobenzene	ND		450	45	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
Cyclohexane	**1100**		450	45	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
1,2,4-Trichlorobenzene	ND		910	450	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
Dibromochloromethane	ND		450	45	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
Xylenes, Total	**15000**		910	130	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
Tetrachloroethene	ND		450	45	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
cis-1,2-Dichloroethene	ND		450	45	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
trans-1,2-Dichloroethene	ND		450	45	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
Methyl tertiary butyl ether	ND		450	45	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
1,3-Dichlorobenzene	ND		450	45	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
Carbon tetrachloride	ND		450	45	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
2-Hexanone	ND		910	91	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
Acetone	ND		1800	540	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
Chloroform	ND		450	54	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
Benzene	**490**		450	45	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
1,1,1-Trichloroethane	ND		450	54	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
Bromomethane	ND		450	63	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
Chloromethane	ND		450	54	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
Chloroethane	ND		450	91	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
Vinyl chloride	ND		450	54	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
Methylene Chloride	ND		450	180	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
Carbon disulfide	ND		450	54	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
Bromoform	ND		910	450	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
Bromodichloromethane	ND		450	36	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
1,1-Dichloroethane	ND		450	45	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
1,1-Dichloroethene	ND		450	45	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
Trichlorofluoromethane	ND	^c	450	63	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
Dichlorodifluoromethane	ND		450	54	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
Freon 113	ND		910	54	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
1,2-Dichloropropane	ND		450	45	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
2-Butanone	ND		910	180	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
1,1,2-Trichloroethane	ND		450	45	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
Trichloroethene	ND		450	45	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
Methyl acetate	ND		450	91	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
1,1,2,2-Tetrachloroethane	ND		450	36	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
1,2-Dichlorobenzene	ND		450	45	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
1,2-Dibromo-3-Chloropropane	ND		450	45	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50
Isopropylbenzene	**200**	**J**	450	36	ug/Kg	☼	07/29/20 10:06	08/05/20 02:12	50

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8905-1

Client Sample ID: CD_AOI4_WC_20200727
Date Collected: 07/27/20 14:30
Date Received: 07/28/20 15:55

Lab Sample ID: 410-8905-1
Matrix: Solid
Percent Solids: 58.6

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*54 - 135*	*07/29/20 10:06*	*08/05/20 02:12*	*50*
Dibromofluoromethane (Surr)	*94*		*50 - 141*	*07/29/20 10:06*	*08/05/20 02:12*	*50*
4-Bromofluorobenzene (Surr)	*112*		*50 - 131*	*07/29/20 10:06*	*08/05/20 02:12*	*50*
Toluene-d8 (Surr)	*106*		*52 - 141*	*07/29/20 10:06*	*08/05/20 02:12*	*50*

Method: 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**4.7**	**J**	20	4.0	ug/L			08/01/20 03:25	20
Carbon tetrachloride	ND		20	4.0	ug/L			08/01/20 03:25	20
Chlorobenzene	ND		20	4.0	ug/L			08/01/20 03:25	20
Chloroform	ND		20	4.0	ug/L			08/01/20 03:25	20
1,2-Dichloroethane	ND		20	6.0	ug/L			08/01/20 03:25	20
1,1-Dichloroethene	ND		20	4.0	ug/L			08/01/20 03:25	20
2-Butanone	ND		200	6.0	ug/L			08/01/20 03:25	20
Tetrachloroethene	ND		20	4.0	ug/L			08/01/20 03:25	20
Trichloroethene	ND		20	4.0	ug/L			08/01/20 03:25	20
Vinyl chloride	ND		20	4.0	ug/L			08/01/20 03:25	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 120*		*08/01/20 03:25*	*20*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*08/01/20 03:25*	*20*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*08/01/20 03:25*	*20*
Toluene-d8 (Surr)	*97*		*80 - 120*		*08/01/20 03:25*	*20*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	ND		62	28	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
2,4-Dichlorophenol	ND		74	34	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
2,4-Dimethylphenol	ND		110	51	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
2,4-Dinitrophenol	ND		1700	570	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
2,4-Dinitrotoluene	ND		280	110	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
2,4,5-Trichlorophenol	ND		110	51	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
2,4,6-Trichlorophenol	ND		96	45	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
2,2'-oxybis[1-chloropropane]	ND		74	34	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Di-n-butyl phthalate	ND	*L	280	110	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Di-n-octyl phthalate	ND	*L	280	110	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Benzo[a]anthracene	ND	*L	28	11	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Benzo[a]pyrene	ND	*L	28	5.7	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Benzo[b]fluoranthene	ND	*L	28	5.7	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Benzo[g,h,i]perylene	ND	*L	28	5.7	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Benzo[k]fluoranthene	ND		28	5.7	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Acenaphthene	ND		28	5.7	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Acenaphthylene	ND		28	5.7	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Acetophenone	ND		85	28	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Anthracene	ND		28	5.7	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Atrazine	ND	*L	740	340	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Benzaldehyde	ND		280	110	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Butylbenzylphthalate	ND	*L	280	110	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Caprolactam	ND		280	57	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Carbazole	ND	*L	62	28	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Chrysene	ND		28	5.7	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1

Client Sample ID: CD_AOI4_WC_20200727
Lab Sample ID: 410-8905-1
Date Collected: 07/27/20 14:30
Matrix: Solid
Date Received: 07/28/20 15:55
Percent Solids: 58.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		28	11	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Dibenzofuran	ND		62	28	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Diethyl phthalate	ND	*L	280	110	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Dimethyl phthalate	ND		280	110	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Hexachlorobenzene	ND		28	11	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Hexachlorobutadiene	ND		130	62	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Hexachlorocyclopentadiene	ND		850	340	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Hexachloroethane	ND		280	57	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Fluoranthene	ND		28	5.7	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Fluorene	ND		28	5.7	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Indeno[1,2,3-cd]pyrene	ND		28	5.7	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Isophorone	ND		62	28	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
N-Nitrosodi-n-propylamine	ND		85	40	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
N-Nitrosodiphenylamine	ND		62	28	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Naphthalene	**430**		28	11	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Nitrobenzene	ND		110	45	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Pentachlorophenol	ND		280	110	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Phenanthrene	**10**	**J**	28	5.7	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Phenol	ND		62	28	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Pyrene	ND	*L	28	5.7	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
2-Chloronaphthalene	ND		57	11	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
2-Chlorophenol	ND		62	28	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
2-Methylnaphthalene	**620**		57	5.7	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
2-Methylphenol	ND		110	28	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
2-Nitroaniline	ND		85	28	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
2-Nitrophenol	ND		96	45	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
3,3'-Dichlorobenzidine	ND		570	170	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
3-Nitroaniline	ND		280	110	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
4,6-Dinitro-2-methylphenol	ND		850	400	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
4-Bromophenyl-phenylether	ND		85	40	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
4-Methylphenol	ND		85	28	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
4-Nitroaniline	ND		280	110	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
4-Nitrophenol	ND		850	280	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Bis(2-chloroethoxy)methane	ND		62	28	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Bis(2-chloroethyl)ether	ND		85	40	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
Bis(2-ethylhexyl) phthalate	ND	*L	280	110	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
2,6-Dinitrotoluene	ND		85	40	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
4-Chloro-3-methylphenol	ND		85	40	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
4-Chloroaniline	ND		280	57	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1
4-Chlorophenyl-phenyl ether	ND		74	34	ug/Kg	☼	08/03/20 09:18	08/04/20 19:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*16*		*10 - 136*	*08/03/20 09:18*	*08/04/20 19:24*	*1*
2-Fluorobiphenyl (Surr)	*79*		*34 - 117*	*08/03/20 09:18*	*08/04/20 19:24*	*1*
2-Fluorophenol (Surr)	*44*		*18 - 115*	*08/03/20 09:18*	*08/04/20 19:24*	*1*
Nitrobenzene-d5 (Surr)	*75*		*23 - 115*	*08/03/20 09:18*	*08/04/20 19:24*	*1*
p-Terphenyl-d14 (Surr)	*93*		*35 - 135*	*08/03/20 09:18*	*08/04/20 19:24*	*1*
Phenol-d5 (Surr)	*72*		*21 - 112*	*08/03/20 09:18*	*08/04/20 19:24*	*1*

Client Sample ID: CD_AOI4_WC_20200727
Date Collected: 07/27/20 14:30
Date Received: 07/28/20 15:55

Lab Sample ID: 410-8905-1
Matrix: Solid
Percent Solids: 58.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TLCP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.010	0.0025	mg/L		08/05/20 07:09	08/06/20 04:25	1
2,4,5-Trichlorophenol	ND		0.010	0.0025	mg/L		08/05/20 07:09	08/06/20 04:25	1
2,4,6-Trichlorophenol	ND		0.010	0.0025	mg/L		08/05/20 07:09	08/06/20 04:25	1
2,4-Dinitrotoluene	ND		0.025	0.0050	mg/L		08/05/20 07:09	08/06/20 04:25	1
2-Methylphenol	ND		0.010	0.0025	mg/L		08/05/20 07:09	08/06/20 04:25	1
4-Methylphenol	ND		0.010	0.0025	mg/L		08/05/20 07:09	08/06/20 04:25	1
Hexachlorobenzene	ND		0.0025	0.00050	mg/L		08/05/20 07:09	08/06/20 04:25	1
Hexachlorobutadiene	ND		0.010	0.0025	mg/L		08/05/20 07:09	08/06/20 04:25	1
Hexachloroethane	ND		0.025	0.0050	mg/L		08/05/20 07:09	08/06/20 04:25	1
Nitrobenzene	ND		0.010	0.0025	mg/L		08/05/20 07:09	08/06/20 04:25	1
Pentachlorophenol	ND		0.025	0.0050	mg/L		08/05/20 07:09	08/06/20 04:25	1
Pyridine	ND		0.025	0.010	mg/L		08/05/20 07:09	08/06/20 04:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*66*		*18 - 141*	*08/05/20 07:09*	*08/06/20 04:25*	*1*
2-Fluorobiphenyl (Surr)	*62*		*44 - 102*	*08/05/20 07:09*	*08/06/20 04:25*	*1*
2-Fluorophenol (Surr)	*32*		*10 - 84*	*08/05/20 07:09*	*08/06/20 04:25*	*1*
Nitrobenzene-d5 (Surr)	*60*		*38 - 113*	*08/05/20 07:09*	*08/06/20 04:25*	*1*
p-Terphenyl-d14 (Surr)	*64*		*34 - 128*	*08/05/20 07:09*	*08/06/20 04:25*	*1*
Phenol-d5 (Surr)	*24*		*10 - 67*	*08/05/20 07:09*	*08/06/20 04:25*	*1*

Method: 8081A - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor (1C)	ND		0.00050	0.00020	mg/L		07/31/20 09:10	08/04/20 08:12	10
Heptachlor epoxide (1C)	ND		0.00050	0.00012	mg/L		07/31/20 09:10	08/04/20 08:12	10
Endrin (1C)	ND		0.0010	0.00040	mg/L		07/31/20 09:10	08/04/20 08:12	10
gamma-BHC (Lindane) (1C)	ND		0.00050	0.00010	mg/L		07/31/20 09:10	08/04/20 08:12	10
Methoxychlor (2C)	ND		0.0050	0.0015	mg/L		07/31/20 09:10	08/04/20 08:12	10
Toxaphene (1C)	ND		0.15	0.050	mg/L		07/31/20 09:10	08/04/20 08:12	10
Chlordane (n.o.s.) (1C)	ND		0.025	0.0080	mg/L		07/31/20 09:10	08/04/20 08:12	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*90*		*10 - 164*	*07/31/20 09:10*	*08/04/20 08:12*	*10*
DCB Decachlorobiphenyl (Surr) (2C)	*97*		*10 - 164*	*07/31/20 09:10*	*08/04/20 08:12*	*10*
Tetrachloro-m-xylene (Surr) (1C)	*73*		*39 - 139*	*07/31/20 09:10*	*08/04/20 08:12*	*10*
Tetrachloro-m-xylene (Surr) (2C)	*79*		*39 - 139*	*07/31/20 09:10*	*08/04/20 08:12*	*10*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (1C)	ND	H	29	6.1	ug/Kg	☼	08/11/20 16:20	08/12/20 16:04	1
PCB-1221 (1C)	ND	H	29	7.8	ug/Kg	☼	08/11/20 16:20	08/12/20 16:04	1
PCB-1232 (1C)	ND	H	29	14	ug/Kg	☼	08/11/20 16:20	08/12/20 16:04	1
PCB-1242 (1C)	ND	H	29	5.6	ug/Kg	☼	08/11/20 16:20	08/12/20 16:04	1
PCB-1248 (1C)	ND	H	29	5.6	ug/Kg	☼	08/11/20 16:20	08/12/20 16:04	1
PCB-1254 (1C)	ND	H	29	5.6	ug/Kg	☼	08/11/20 16:20	08/12/20 16:04	1
PCB-1260 (1C)	ND	H	29	8.3	ug/Kg	☼	08/11/20 16:20	08/12/20 16:04	1
Polychlorinated biphenyls, Total (1C)	ND	H	29	14	ug/Kg	☼	08/11/20 16:20	08/12/20 16:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*31*	*XL*	*45 - 143*	*08/11/20 16:20*	*08/12/20 16:04*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*31*	*XL*	*45 - 143*	*08/11/20 16:20*	*08/12/20 16:04*	*1*

Client Sample ID: CD_AOI4_WC_20200727
Date Collected: 07/27/20 14:30
Date Received: 07/28/20 15:55

Lab Sample ID: 410-8905-1
Matrix: Solid
Percent Solids: 58.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (1C)	*2*	*XL*	*53 - 140*	*08/11/20 16:20*	*08/12/20 16:04*	*1*
Tetrachloro-m-xylene (2C)	*2*	*XL*	*53 - 140*	*08/11/20 16:20*	*08/12/20 16:04*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP) (1C)	ND		2.9	1.3	ug/Kg	☼	08/07/20 15:48	08/11/20 01:20	1
2,4-D (1C)	ND	*L	61	20	ug/Kg	☼	08/07/20 15:48	08/11/20 01:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid (Surr) (1C)	*54*		*27 - 136*	*08/07/20 15:48*	*08/11/20 01:20*	*1*
2,4-Dichlorophenylacetic acid (Surr) (2C)	*58*		*27 - 136*	*08/07/20 15:48*	*08/11/20 01:20*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**2.5**		2.2	0.87	mg/Kg	☼	07/29/20 11:28	08/03/20 18:24	1

Method: 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.027**	**J**	0.030	0.016	mg/L		07/30/20 11:54	08/04/20 20:33	1
Barium	**0.26**	**B**	0.0050	0.0010	mg/L		07/30/20 11:54	08/04/20 20:33	1
Cadmium	ND		0.0050	0.0010	mg/L		07/30/20 11:54	08/04/20 20:33	1
Chromium	**0.0099**	**J**	0.015	0.0016	mg/L		07/30/20 11:54	08/04/20 20:33	1
Lead	**0.024**	**B**	0.015	0.0071	mg/L		07/30/20 11:54	08/04/20 20:33	1
Selenium	ND	*H	0.050	0.016	mg/L		07/30/20 11:54	08/04/20 20:33	1
Silver	ND		0.010	0.0050	mg/L		07/30/20 11:54	08/04/20 20:33	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.079	ug/L		07/30/20 12:01	08/04/20 07:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ignitable to Air	**No**		1.0	1.0	NONE			07/30/20 01:20	1
Ignitable to Flame	**No**		1.0	1.0	NONE			07/30/20 01:20	1
Ignitable to Friction	**No**		1.0	1.0	NONE			07/30/20 01:20	1
Ignitable to Water	**No**		1.0	1.0	NONE			07/30/20 01:20	1
Cyanide, Reactive	ND		60	20	mg/Kg		08/04/20 11:38	08/05/20 00:49	1
Sulfide, Reactive	ND		160	53	mg/Kg		08/04/20 11:38	08/04/20 14:19	1
Percent Moisture	**41.4**		1.0	1.0	%			07/29/20 06:56	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**11.3**		0.01	0.01	S.U.			07/31/20 08:36	1
Temperature	**19.7**		0.01	0.01	Degrees C			07/31/20 08:36	1
Corrosivity	**no**		0.01	0.01	NONE			07/31/20 08:36	1

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8905-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	DBFM	BFB	TOL
Lab Sample ID	Client Sample ID	(54-135)	(50-141)	(50-131)	(52-141)
410-8905-1	CD_AOI4_WC_20200727	103	94	112	106
LCS 410-29545/5	Lab Control Sample	100	94	99	100
LCSD 410-29545/6	Lab Control Sample Dup	99	94	98	99
MB 410-29545/8	Method Blank	100	91	98	99

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
DBFM = Dibromofluoromethane (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	DBFM	BFB	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
LCS 410-28594/4	Lab Control Sample	99	99	102	98
MB 410-28594/6	Method Blank	97	96	101	98

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
DBFM = Dibromofluoromethane (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: TCLP

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-8905-1	CD_AOI4_WC_20200727	98	102	97	97

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	TPHd14	PHL
Lab Sample ID	Client Sample ID	(10-136)	(34-117)	(18-115)	(23-115)	(35-135)	(21-112)
410-8905-1	CD_AOI4_WC_20200727	16	79	44	75	93	72
LCS 410-28918/2-A	Lab Control Sample	72	62	53	57	66	58
LCS 410-31473/16-A	Lab Control Sample	92	77	74	65	93	80
LCS 410-31473/2-A	Lab Control Sample	88	86	78	75	90	81
LCSD 410-31473/17-A	Lab Control Sample Dup	89	74	71	64	90	74
MB 410-28918/1-A	Method Blank	87	78	66	70	87	71

Surrogate Summary

Client: Stantec Consulting Corp. Job ID: 410-8905-1
Project/Site: PHL Penrose Drilling Sampling

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	TPHd14	PHL
Lab Sample ID	Client Sample ID	(10-136)	(34-117)	(18-115)	(23-115)	(35-135)	(21-112)
MB 410-31473/1-A	Method Blank	84	89	79	75	108	80

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)
PHL = Phenol-d5 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	TPHd14	PHL
Lab Sample ID	Client Sample ID	(18-141)	(44-102)	(10-84)	(38-113)	(34-128)	(10-67)
LCS 410-29727/2-A	Lab Control Sample	96	72	53	66	98	38
LCSD 410-29727/3-A	Lab Control Sample Dup	104	86	53	81	94	35
MB 410-29727/1-A	Method Blank	92	78	45	76	102	29

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)
PHL = Phenol-d5 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	TPHd14	PHL
Lab Sample ID	Client Sample ID	(18-141)	(44-102)	(10-84)	(38-113)	(34-128)	(10-67)
410-8905-1	CD_AOI4_WC_20200727	66	62	32	60	64	24

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)
PHL = Phenol-d5 (Surr)

Method: 8081A - Organochlorine Pesticides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCB1	DCB2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(10-164)	(10-164)	(39-139)	(39-139)
LCS 410-28362/2-A	Lab Control Sample	82	78	69	68
LCSD 410-28362/3-A	Lab Control Sample Dup	76	73	67	67
MB 410-28362/1-A	Method Blank	84	80	68	67

Surrogate Summary

Client: Stantec Consulting Corp.
Job ID: 410-8905-1
Project/Site: PHL Penrose Drilling Sampling

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Method: 8081A - Organochlorine Pesticides (GC)

Matrix: Solid **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCB1	DCB2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(10-164)	(10-164)	(39-139)	(39-139)
410-8905-1	CD_AOI4_WC_20200727	90	97	73	79

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCB1	DCB2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(45-143)	(45-143)	(53-140)	(53-140)
410-8905-1	CD_AOI4_WC_20200727	31 XL	31 XL	2 XL	2 XL
LCS 410-31952/2-A	Lab Control Sample	104	112	98	103
MB 410-31952/1-A	Method Blank	107	105	98	101

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene

Method: 8151A - Herbicides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCPAA1	DCPAA2
Lab Sample ID	Client Sample ID	(27-136)	(27-136)
410-8905-1	CD_AOI4_WC_20200727	54	58
LCS 410-30845/2-A	Lab Control Sample	57	56
MB 410-30845/1-A	Method Blank	34	37

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid (Surr)

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8905-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-28594/6
Matrix: Solid
Analysis Batch: 28594

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		1.0	0.30	ug/L			07/31/20 21:46	1
Chlorobenzene	ND		1.0	0.20	ug/L			07/31/20 21:46	1
Tetrachloroethene	ND		1.0	0.20	ug/L			07/31/20 21:46	1
Carbon tetrachloride	ND		1.0	0.20	ug/L			07/31/20 21:46	1
Chloroform	ND		1.0	0.20	ug/L			07/31/20 21:46	1
Benzene	ND		1.0	0.20	ug/L			07/31/20 21:46	1
Vinyl chloride	ND		1.0	0.20	ug/L			07/31/20 21:46	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			07/31/20 21:46	1
2-Butanone	ND		10	0.30	ug/L			07/31/20 21:46	1
Trichloroethene	ND		1.0	0.20	ug/L			07/31/20 21:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*80 - 120*		*07/31/20 21:46*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*07/31/20 21:46*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*07/31/20 21:46*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*07/31/20 21:46*	*1*

Lab Sample ID: LCS 410-28594/4
Matrix: Solid
Analysis Batch: 28594

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	20.0	18.6		ug/L		93	73 - 124
Chlorobenzene	20.0	19.5		ug/L		97	80 - 120
Tetrachloroethene	20.0	16.9		ug/L		84	80 - 120
Carbon tetrachloride	20.0	17.6		ug/L		88	64 - 134
Chloroform	20.0	19.3		ug/L		96	80 - 120
Benzene	20.0	19.5		ug/L		98	80 - 120
Vinyl chloride	20.0	17.1		ug/L		86	56 - 120
1,1-Dichloroethene	20.0	17.8		ug/L		89	80 - 131
2-Butanone	150	145		ug/L		96	59 - 135
Trichloroethene	20.0	19.0		ug/L		95	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*99*		*80 - 120*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*
Toluene-d8 (Surr)	*98*		*80 - 120*

Lab Sample ID: MB 410-29545/8
Matrix: Solid
Analysis Batch: 29545

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	ND		250	20	ug/Kg			08/04/20 21:26	50
trans-1,3-Dichloropropene	ND		250	25	ug/Kg			08/04/20 21:26	50
Ethylbenzene	ND		250	20	ug/Kg			08/04/20 21:26	50
Styrene	ND		250	20	ug/Kg			08/04/20 21:26	50

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-29545/8
Matrix: Solid
Analysis Batch: 29545

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		250	20	ug/Kg			08/04/20 21:26	50
1,2-Dibromoethane	ND		250	20	ug/Kg			08/04/20 21:26	50
1,2-Dichloroethane	ND		250	30	ug/Kg			08/04/20 21:26	50
4-Methyl-2-pentanone	ND		500	50	ug/Kg			08/04/20 21:26	50
Methylcyclohexane	ND		250	30	ug/Kg			08/04/20 21:26	50
Toluene	ND		250	30	ug/Kg			08/04/20 21:26	50
Chlorobenzene	ND		250	25	ug/Kg			08/04/20 21:26	50
Cyclohexane	ND		250	25	ug/Kg			08/04/20 21:26	50
1,2,4-Trichlorobenzene	ND		500	250	ug/Kg			08/04/20 21:26	50
Dibromochloromethane	ND		250	25	ug/Kg			08/04/20 21:26	50
Xylenes, Total	ND		500	70	ug/Kg			08/04/20 21:26	50
Tetrachloroethene	ND		250	25	ug/Kg			08/04/20 21:26	50
cis-1,2-Dichloroethene	ND		250	25	ug/Kg			08/04/20 21:26	50
trans-1,2-Dichloroethene	ND		250	25	ug/Kg			08/04/20 21:26	50
Methyl tertiary butyl ether	ND		250	25	ug/Kg			08/04/20 21:26	50
1,3-Dichlorobenzene	ND		250	25	ug/Kg			08/04/20 21:26	50
Carbon tetrachloride	ND		250	25	ug/Kg			08/04/20 21:26	50
2-Hexanone	ND		500	50	ug/Kg			08/04/20 21:26	50
Acetone	ND		1000	300	ug/Kg			08/04/20 21:26	50
Chloroform	ND		250	30	ug/Kg			08/04/20 21:26	50
Benzene	ND		250	25	ug/Kg			08/04/20 21:26	50
1,1,1-Trichloroethane	ND		250	30	ug/Kg			08/04/20 21:26	50
Bromomethane	ND		250	35	ug/Kg			08/04/20 21:26	50
Chloromethane	ND		250	30	ug/Kg			08/04/20 21:26	50
Chloroethane	ND		250	50	ug/Kg			08/04/20 21:26	50
Vinyl chloride	ND		250	30	ug/Kg			08/04/20 21:26	50
Methylene Chloride	ND		250	100	ug/Kg			08/04/20 21:26	50
Carbon disulfide	ND		250	30	ug/Kg			08/04/20 21:26	50
Bromoform	ND		500	250	ug/Kg			08/04/20 21:26	50
Bromodichloromethane	ND		250	20	ug/Kg			08/04/20 21:26	50
1,1-Dichloroethane	ND		250	25	ug/Kg			08/04/20 21:26	50
1,1-Dichloroethene	ND		250	25	ug/Kg			08/04/20 21:26	50
Trichlorofluoromethane	ND		250	35	ug/Kg			08/04/20 21:26	50
Dichlorodifluoromethane	ND		250	30	ug/Kg			08/04/20 21:26	50
Freon 113	ND		500	30	ug/Kg			08/04/20 21:26	50
1,2-Dichloropropane	ND		250	25	ug/Kg			08/04/20 21:26	50
2-Butanone	ND		500	100	ug/Kg			08/04/20 21:26	50
1,1,2-Trichloroethane	ND		250	25	ug/Kg			08/04/20 21:26	50
Trichloroethene	ND		250	25	ug/Kg			08/04/20 21:26	50
Methyl acetate	ND		250	50	ug/Kg			08/04/20 21:26	50
1,1,2,2-Tetrachloroethane	ND		250	20	ug/Kg			08/04/20 21:26	50
1,2-Dichlorobenzene	ND		250	25	ug/Kg			08/04/20 21:26	50
1,2-Dibromo-3-Chloropropane	ND		250	25	ug/Kg			08/04/20 21:26	50
Isopropylbenzene	ND		250	20	ug/Kg			08/04/20 21:26	50

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*54 - 135*		*08/04/20 21:26*	*50*
Dibromofluoromethane (Surr)	*91*		*50 - 141*		*08/04/20 21:26*	*50*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-29545/8
Matrix: Solid
Analysis Batch: 29545

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*98*		*50 - 131*		*08/04/20 21:26*	*50*
Toluene-d8 (Surr)	*99*		*52 - 141*		*08/04/20 21:26*	*50*

Lab Sample ID: LCS 410-29545/5
Matrix: Solid
Analysis Batch: 29545

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,3-Dichloropropene	1000	1050		ug/Kg		105	66 - 120
trans-1,3-Dichloropropene	1000	1060		ug/Kg		106	68 - 122
Ethylbenzene	1000	1000		ug/Kg		100	78 - 120
Styrene	1000	1020		ug/Kg		102	76 - 120
1,4-Dichlorobenzene	1000	1010		ug/Kg		101	80 - 120
1,2-Dibromoethane	1000	980		ug/Kg		98	76 - 120
1,2-Dichloroethane	1000	949		ug/Kg		95	71 - 128
4-Methyl-2-pentanone	5000	4240		ug/Kg		85	67 - 128
Methylcyclohexane	1000	996		ug/Kg		100	61 - 124
Toluene	1000	1040		ug/Kg		104	80 - 120
Chlorobenzene	1000	981		ug/Kg		98	80 - 120
Cyclohexane	1000	1070		ug/Kg		107	58 - 126
1,2,4-Trichlorobenzene	1000	903		ug/Kg		90	56 - 130
Dibromochloromethane	1000	1110		ug/Kg		111	69 - 125
Xylenes, Total	3000	3030		ug/Kg		101	75 - 120
Tetrachloroethene	1000	1040		ug/Kg		104	73 - 120
cis-1,2-Dichloroethene	1000	1060		ug/Kg		106	80 - 125
trans-1,2-Dichloroethene	1000	1030		ug/Kg		103	80 - 126
Methyl tertiary butyl ether	1000	902		ug/Kg		90	72 - 120
1,3-Dichlorobenzene	1000	1010		ug/Kg		101	75 - 120
Carbon tetrachloride	1000	948		ug/Kg		95	64 - 134
2-Hexanone	5000	3950		ug/Kg		79	54 - 140
Acetone	7500	7410		ug/Kg		99	41 - 150
Chloroform	1000	976		ug/Kg		98	80 - 120
Benzene	1000	1010		ug/Kg		101	80 - 120
1,1,1-Trichloroethane	1000	921		ug/Kg		92	69 - 123
Bromomethane	1000	1110		ug/Kg		111	45 - 140
Chloromethane	1000	896		ug/Kg		90	56 - 120
Chloroethane	1000	1110		ug/Kg		111	43 - 135
Vinyl chloride	1000	886		ug/Kg		89	52 - 120
Methylene Chloride	1000	1020		ug/Kg		102	76 - 122
Carbon disulfide	1000	1280		ug/Kg		128	64 - 133
Bromoform	1000	1040		ug/Kg		104	51 - 127
Bromodichloromethane	1000	1040		ug/Kg		104	70 - 120
1,1-Dichloroethane	1000	1030		ug/Kg		103	79 - 120
1,1-Dichloroethene	1000	1030		ug/Kg		103	73 - 129
Trichlorofluoromethane	1000	893		ug/Kg		89	55 - 134
Dichlorodifluoromethane	1000	711		ug/Kg		71	21 - 127
Freon 113	1000	962		ug/Kg		96	64 - 135
1,2-Dichloropropane	1000	1030		ug/Kg		103	80 - 120

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-29545/5
Matrix: Solid
Analysis Batch: 29545

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
2-Butanone			7500	5210		ug/Kg		70	57 - 128		
1,1,2-Trichloroethane			1000	1010		ug/Kg		101	80 - 120		
Trichloroethene			1000	957		ug/Kg		96	80 - 120		
Methyl acetate			1000	1100		ug/Kg		110	67 - 128		
1,1,2,2-Tetrachloroethane			1000	969		ug/Kg		97	69 - 125		
1,2-Dichlorobenzene			1000	999		ug/Kg		100	76 - 120		
1,2-Dibromo-3-Chloropropane			1000	758		ug/Kg		76	48 - 134		
Isopropylbenzene			1000	1010		ug/Kg		101	77 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*54 - 135*
Dibromofluoromethane (Surr)	*94*		*50 - 141*
4-Bromofluorobenzene (Surr)	*99*		*50 - 131*
Toluene-d8 (Surr)	*100*		*52 - 141*

Lab Sample ID: LCSD 410-29545/6
Matrix: Solid
Analysis Batch: 29545

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,3-Dichloropropene			1000	1040		ug/Kg		104	66 - 120	1	30
trans-1,3-Dichloropropene			1000	1050		ug/Kg		105	68 - 122	1	30
Ethylbenzene			1000	1010		ug/Kg		101	78 - 120	0	30
Styrene			1000	1010		ug/Kg		101	76 - 120	0	30
1,4-Dichlorobenzene			1000	1010		ug/Kg		101	80 - 120	0	30
1,2-Dibromoethane			1000	970		ug/Kg		97	76 - 120	1	30
1,2-Dichloroethane			1000	947		ug/Kg		95	71 - 128	0	30
4-Methyl-2-pentanone			5000	4250		ug/Kg		85	67 - 128	0	30
Methylcyclohexane			1000	905		ug/Kg		90	61 - 124	10	30
Toluene			1000	1040		ug/Kg		104	80 - 120	0	30
Chlorobenzene			1000	972		ug/Kg		97	80 - 120	1	30
Cyclohexane			1000	997		ug/Kg		100	58 - 126	7	30
1,2,4-Trichlorobenzene			1000	936		ug/Kg		94	56 - 130	4	30
Dibromochloromethane			1000	1090		ug/Kg		109	69 - 125	1	30
Xylenes, Total			3000	3010		ug/Kg		100	75 - 120	1	30
Tetrachloroethene			1000	1060		ug/Kg		106	73 - 120	3	30
cis-1,2-Dichloroethene			1000	1050		ug/Kg		105	80 - 125	0	30
trans-1,2-Dichloroethene			1000	1030		ug/Kg		103	80 - 126	0	30
Methyl tertiary butyl ether			1000	903		ug/Kg		90	72 - 120	0	30
1,3-Dichlorobenzene			1000	1010		ug/Kg		101	75 - 120	0	30
Carbon tetrachloride			1000	942		ug/Kg		94	64 - 134	1	30
2-Hexanone			5000	3670		ug/Kg		73	54 - 140	7	30
Acetone			7500	7240		ug/Kg		97	41 - 150	2	30
Chloroform			1000	985		ug/Kg		99	80 - 120	1	30
Benzene			1000	1020		ug/Kg		102	80 - 120	0	30
1,1,1-Trichloroethane			1000	924		ug/Kg		92	69 - 123	0	30
Bromomethane			1000	1230		ug/Kg		123	45 - 140	11	30
Chloromethane			1000	908		ug/Kg		91	56 - 120	1	30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-29545/6
Matrix: Solid
Analysis Batch: 29545

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloroethane	1000	1160		ug/Kg		116	43 - 135	4	30
Vinyl chloride	1000	888		ug/Kg		89	52 - 120	0	30
Methylene Chloride	1000	1030		ug/Kg		103	76 - 122	0	30
Carbon disulfide	1000	1300		ug/Kg		130	64 - 133	1	30
Bromoform	1000	1040		ug/Kg		104	51 - 127	0	30
Bromodichloromethane	1000	1050		ug/Kg		105	70 - 120	1	30
1,1-Dichloroethane	1000	1040		ug/Kg		104	79 - 120	1	30
1,1-Dichloroethene	1000	1030		ug/Kg		103	73 - 129	0	30
Trichlorofluoromethane	1000	871		ug/Kg		87	55 - 134	2	30
Dichlorodifluoromethane	1000	657		ug/Kg		66	21 - 127	8	30
Freon 113	1000	871		ug/Kg		87	64 - 135	10	30
1,2-Dichloropropane	1000	1020		ug/Kg		102	80 - 120	1	30
2-Butanone	7500	4820		ug/Kg		64	57 - 128	8	30
1,1,2-Trichloroethane	1000	996		ug/Kg		100	80 - 120	1	30
Trichloroethene	1000	969		ug/Kg		97	80 - 120	1	30
Methyl acetate	1000	1080		ug/Kg		108	67 - 128	2	30
1,1,2,2-Tetrachloroethane	1000	976		ug/Kg		98	69 - 125	1	30
1,2-Dichlorobenzene	1000	1000		ug/Kg		100	76 - 120	0	30
1,2-Dibromo-3-Chloropropane	1000	773		ug/Kg		77	48 - 134	2	30
Isopropylbenzene	1000	1020		ug/Kg		102	77 - 120	0	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*54 - 135*
Dibromofluoromethane (Surr)	*94*		*50 - 141*
4-Bromofluorobenzene (Surr)	*98*		*50 - 131*
Toluene-d8 (Surr)	*99*		*52 - 141*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-28918/1-A
Matrix: Solid
Analysis Batch: 29301

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 28918

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	ND		37	17	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
2,4-Dichlorophenol	ND		43	20	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
2,4-Dimethylphenol	ND		67	30	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
2,4-Dinitrophenol	ND		1000	330	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
2,4-Dinitrotoluene	ND		170	67	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
2,4,5-Trichlorophenol	ND		67	30	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
2,4,6-Trichlorophenol	ND		57	27	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
2,2'-oxybis[1-chloropropane]	ND		43	20	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Di-n-butyl phthalate	ND		170	67	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Di-n-octyl phthalate	ND		170	67	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Benzo[a]anthracene	ND		17	6.7	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Benzo[a]pyrene	ND		17	3.3	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Benzo[b]fluoranthene	ND		17	3.3	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Benzo[g,h,i]perylene	ND		17	3.3	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Benzo[k]fluoranthene	ND		17	3.3	ug/Kg		08/03/20 08:45	08/04/20 09:57	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-28918/1-A
Matrix: Solid
Analysis Batch: 29301

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 28918

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		17	3.3	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Acenaphthylene	ND		17	3.3	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Acetophenone	ND		50	17	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Anthracene	ND		17	3.3	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Atrazine	ND		430	200	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Benzaldehyde	ND		170	67	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Butylbenzylphthalate	ND		170	67	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Caprolactam	ND		170	33	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Carbazole	ND		37	17	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Chrysene	ND		17	3.3	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Dibenz(a,h)anthracene	ND		17	6.7	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Dibenzofuran	ND		37	17	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Diethyl phthalate	ND		170	67	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Dimethyl phthalate	ND		170	67	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Hexachlorobenzene	ND		17	6.7	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Hexachlorobutadiene	ND		77	37	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Hexachlorocyclopentadiene	ND		500	200	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Hexachloroethane	ND		170	33	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Fluoranthene	ND		17	3.3	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Fluorene	ND		17	3.3	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Indeno[1,2,3-cd]pyrene	ND		17	3.3	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Isophorone	ND		37	17	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
N-Nitrosodi-n-propylamine	ND		50	23	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
N-Nitrosodiphenylamine	ND		37	17	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Naphthalene	ND		17	6.7	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Nitrobenzene	ND		67	27	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Pentachlorophenol	ND		170	67	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Phenanthrene	ND		17	3.3	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Phenol	ND		37	17	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Pyrene	ND		17	3.3	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
2-Chloronaphthalene	ND		33	6.7	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
2-Chlorophenol	ND		37	17	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
2-Methylnaphthalene	ND		33	3.3	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
2-Methylphenol	ND		67	17	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
2-Nitroaniline	ND		50	17	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
2-Nitrophenol	ND		57	27	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
3,3'-Dichlorobenzidine	ND		330	100	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
3-Nitroaniline	ND		170	67	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
4,6-Dinitro-2-methylphenol	ND		500	230	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
4-Bromophenyl-phenylether	ND		50	23	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
4-Methylphenol	ND		50	17	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
4-Nitroaniline	ND		170	67	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
4-Nitrophenol	ND		500	170	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Bis(2-chloroethoxy)methane	ND		37	17	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Bis(2-chloroethyl)ether	ND		50	23	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
Bis(2-ethylhexyl) phthalate	ND		170	67	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
2,6-Dinitrotoluene	ND		50	23	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
4-Chloro-3-methylphenol	ND		50	23	ug/Kg		08/03/20 08:45	08/04/20 09:57	1
4-Chloroaniline	ND		170	33	ug/Kg		08/03/20 08:45	08/04/20 09:57	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-28918/1-A
Matrix: Solid
Analysis Batch: 29301

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 28918

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl-phenyl ether	ND		43	20	ug/Kg		08/03/20 08:45	08/04/20 09:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*87*		*10 - 136*	*08/03/20 08:45*	*08/04/20 09:57*	*1*
2-Fluorobiphenyl (Surr)	*78*		*34 - 117*	*08/03/20 08:45*	*08/04/20 09:57*	*1*
2-Fluorophenol (Surr)	*66*		*18 - 115*	*08/03/20 08:45*	*08/04/20 09:57*	*1*
Nitrobenzene-d5 (Surr)	*70*		*23 - 115*	*08/03/20 08:45*	*08/04/20 09:57*	*1*
p-Terphenyl-d14 (Surr)	*87*		*35 - 135*	*08/03/20 08:45*	*08/04/20 09:57*	*1*
Phenol-d5 (Surr)	*71*		*21 - 112*	*08/03/20 08:45*	*08/04/20 09:57*	*1*

Lab Sample ID: LCS 410-28918/2-A
Matrix: Solid
Analysis Batch: 29301

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 28918

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	1670	1070		ug/Kg		64	59 - 106
2,4-Dichlorophenol	1670	1140		ug/Kg		68	57 - 115
2,4-Dimethylphenol	1670	888		ug/Kg		53	47 - 95
2,4-Dinitrophenol	3340	2480		ug/Kg		74	34 - 136
2,4-Dinitrotoluene	1680	1150		ug/Kg		68	61 - 121
2,4,5-Trichlorophenol	1670	1080		ug/Kg		64	62 - 121
2,4,6-Trichlorophenol	1670	1160		ug/Kg		70	60 - 120
2,2'-oxybis[1-chloropropane]	1670	886		ug/Kg		53	44 - 105
Di-n-butyl phthalate	1670	1080	*L	ug/Kg		65	70 - 126
Di-n-octyl phthalate	1670	974	*L	ug/Kg		58	65 - 139
Benzo[a]anthracene	1670	1110	*L	ug/Kg		66	68 - 120
Benzo[a]pyrene	1670	1070	*L	ug/Kg		64	68 - 119
Benzo[b]fluoranthene	1670	1010	*L	ug/Kg		60	67 - 125
Benzo[g,h,i]perylene	1670	1110	*L	ug/Kg		66	68 - 125
Benzo[k]fluoranthene	1670	1110		ug/Kg		67	66 - 122
Acenaphthene	1670	1040		ug/Kg		62	61 - 112
Acenaphthylene	1670	1130		ug/Kg		68	60 - 124
Acetophenone	1670	953		ug/Kg		57	48 - 109
Anthracene	1670	1140		ug/Kg		68	67 - 120
Atrazine	1680	1070	*L	ug/Kg		64	70 - 129
Benzaldehyde	1680	844		ug/Kg		50	20 - 101
Butylbenzylphthalate	1670	1040	*L	ug/Kg		62	69 - 125
Caprolactam	1680	1060		ug/Kg		63	62 - 119
Carbazole	1670	1140	*L	ug/Kg		68	69 - 125
Chrysene	1670	1090		ug/Kg		66	66 - 111
Dibenz(a,h)anthracene	1670	1150		ug/Kg		69	69 - 135
Dibenzofuran	1670	1140		ug/Kg		69	62 - 113
Diethyl phthalate	1670	1090	*L	ug/Kg		66	68 - 116
Dimethyl phthalate	1670	1100		ug/Kg		66	66 - 113
Hexachlorobenzene	1670	1180		ug/Kg		71	62 - 124
Hexachlorobutadiene	1680	1110		ug/Kg		66	39 - 120
Hexachlorocyclopentadiene	3350	1940		ug/Kg		58	13 - 115
Hexachloroethane	1680	822		ug/Kg		49	30 - 112

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-28918/2-A
Matrix: Solid
Analysis Batch: 29301

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 28918

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoranthene	1670	1190		ug/Kg		72	65 - 114
Fluorene	1670	1160		ug/Kg		70	62 - 110
Indeno[1,2,3-cd]pyrene	1670	1140		ug/Kg		68	64 - 130
Isophorone	1670	1060		ug/Kg		63	51 - 113
N-Nitrosodi-n-propylamine	1670	935		ug/Kg		56	49 - 108
N-Nitrosodiphenylamine	1670	1150		ug/Kg		69	64 - 127
Naphthalene	1680	1020		ug/Kg		61	49 - 104
Nitrobenzene	1670	1020		ug/Kg		61	41 - 118
Pentachlorophenol	1680	1230		ug/Kg		73	40 - 131
Phenanthrene	1670	1140		ug/Kg		68	67 - 116
Phenol	1670	988		ug/Kg		59	57 - 107
Pyrene	1680	1100	*L	ug/Kg		66	67 - 109
2-Chloronaphthalene	1670	1160		ug/Kg		69	48 - 123
2-Chlorophenol	1670	994		ug/Kg		59	51 - 109
2-Methylnaphthalene	1670	1100		ug/Kg		66	52 - 104
2-Methylphenol	1670	990		ug/Kg		59	52 - 116
2-Nitroaniline	1670	1110		ug/Kg		67	65 - 132
2-Nitrophenol	1670	1030		ug/Kg		62	50 - 115
3,3'-Dichlorobenzidine	1670	749		ug/Kg		45	18 - 114
3-Nitroaniline	1670	1100		ug/Kg		66	65 - 125
4,6-Dinitro-2-methylphenol	1670	1260		ug/Kg		76	56 - 135
4-Bromophenyl-phenylether	1680	1170		ug/Kg		70	64 - 120
4-Methylphenol	1670	1020		ug/Kg		61	52 - 121
4-Nitroaniline	1670	885		ug/Kg		53	45 - 99
4-Nitrophenol	1670	968		ug/Kg		58	54 - 125
Bis(2-chloroethoxy)methane	1680	1050		ug/Kg		63	52 - 110
Bis(2-chloroethyl)ether	1680	902		ug/Kg		54	44 - 104
Bis(2-ethylhexyl) phthalate	1680	1000	*L	ug/Kg		60	65 - 132
2,6-Dinitrotoluene	1680	1140		ug/Kg		68	66 - 122
4-Chloro-3-methylphenol	1670	1160		ug/Kg		70	62 - 117
4-Chloroaniline	1670	900		ug/Kg		54	24 - 105
4-Chlorophenyl-phenyl ether	1670	1180		ug/Kg		71	58 - 110

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*72*		*10 - 136*
2-Fluorobiphenyl (Surr)	*62*		*34 - 117*
2-Fluorophenol (Surr)	*53*		*18 - 115*
Nitrobenzene-d5 (Surr)	*57*		*23 - 115*
p-Terphenyl-d14 (Surr)	*66*		*35 - 135*
Phenol-d5 (Surr)	*58*		*21 - 112*

Lab Sample ID: MB 410-29727/1-A
Matrix: Solid
Analysis Batch: 30087

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29727

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.010	0.0025	mg/L		08/05/20 07:09	08/05/20 23:33	1
2,4-Dinitrotoluene	ND		0.025	0.0050	mg/L		08/05/20 07:09	08/05/20 23:33	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-29727/1-A
Matrix: Solid
Analysis Batch: 30087

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29727

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		0.010	0.0025	mg/L		08/05/20 07:09	08/05/20 23:33	1
2,4,6-Trichlorophenol	ND		0.010	0.0025	mg/L		08/05/20 07:09	08/05/20 23:33	1
Pyridine	ND		0.025	0.010	mg/L		08/05/20 07:09	08/05/20 23:33	1
Hexachlorobenzene	ND		0.0025	0.00050	mg/L		08/05/20 07:09	08/05/20 23:33	1
Hexachlorobutadiene	ND		0.010	0.0025	mg/L		08/05/20 07:09	08/05/20 23:33	1
Hexachloroethane	ND		0.025	0.0050	mg/L		08/05/20 07:09	08/05/20 23:33	1
Nitrobenzene	ND		0.010	0.0025	mg/L		08/05/20 07:09	08/05/20 23:33	1
Pentachlorophenol	ND		0.025	0.0050	mg/L		08/05/20 07:09	08/05/20 23:33	1
2-Methylphenol	ND		0.010	0.0025	mg/L		08/05/20 07:09	08/05/20 23:33	1
4-Methylphenol	ND		0.010	0.0025	mg/L		08/05/20 07:09	08/05/20 23:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*92*		*18 - 141*	*08/05/20 07:09*	*08/05/20 23:33*	*1*
2-Fluorobiphenyl (Surr)	*78*		*44 - 102*	*08/05/20 07:09*	*08/05/20 23:33*	*1*
2-Fluorophenol (Surr)	*45*		*10 - 84*	*08/05/20 07:09*	*08/05/20 23:33*	*1*
Nitrobenzene-d5 (Surr)	*76*		*38 - 113*	*08/05/20 07:09*	*08/05/20 23:33*	*1*
p-Terphenyl-d14 (Surr)	*102*		*34 - 128*	*08/05/20 07:09*	*08/05/20 23:33*	*1*
Phenol-d5 (Surr)	*29*		*10 - 67*	*08/05/20 07:09*	*08/05/20 23:33*	*1*

Lab Sample ID: LCS 410-29727/2-A
Matrix: Solid
Analysis Batch: 30087

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29727

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	0.250	0.139		mg/L		56	34 - 97
2,4-Dinitrotoluene	0.251	0.210		mg/L		83	66 - 122
2,4,5-Trichlorophenol	0.251	0.227		mg/L		90	66 - 118
2,4,6-Trichlorophenol	0.250	0.234		mg/L		93	69 - 117
Pyridine	0.250	0.104		mg/L		42	23 - 64
Hexachlorobenzene	0.250	0.230		mg/L		92	60 - 117
Hexachlorobutadiene	0.252	0.142		mg/L		56	20 - 108
Hexachloroethane	0.251	0.129		mg/L		51	23 - 95
Nitrobenzene	0.251	0.177		mg/L		71	59 - 109
Pentachlorophenol	0.252	0.231		mg/L		92	54 - 131
2-Methylphenol	0.251	0.195		mg/L		78	53 - 107
4-Methylphenol	0.250	0.200		mg/L		80	49 - 108

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*96*		*18 - 141*
2-Fluorobiphenyl (Surr)	*72*		*44 - 102*
2-Fluorophenol (Surr)	*53*		*10 - 84*
Nitrobenzene-d5 (Surr)	*66*		*38 - 113*
p-Terphenyl-d14 (Surr)	*98*		*34 - 128*
Phenol-d5 (Surr)	*38*		*10 - 67*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-29727/3-A
Matrix: Solid
Analysis Batch: 30087

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 29727

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dichlorobenzene			0.250	0.175		mg/L		70	34 - 97	23	30
2,4-Dinitrotoluene			0.251	0.236		mg/L		94	66 - 122	12	30
2,4,5-Trichlorophenol			0.251	0.242		mg/L		96	66 - 118	6	30
2,4,6-Trichlorophenol			0.250	0.251		mg/L		100	69 - 117	7	30
Pyridine			0.250	0.112		mg/L		45	23 - 64	8	30
Hexachlorobenzene			0.250	0.250		mg/L		100	60 - 117	8	30
Hexachlorobutadiene			0.252	0.171		mg/L		68	20 - 108	19	30
Hexachloroethane			0.251	0.158		mg/L		63	23 - 95	20	30
Nitrobenzene			0.251	0.212		mg/L		84	59 - 109	18	30
Pentachlorophenol			0.252	0.246		mg/L		98	54 - 131	6	30
2-Methylphenol			0.251	0.192		mg/L		77	53 - 107	2	30
4-Methylphenol			0.250	0.192		mg/L		77	49 - 108	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*104*		*18 - 141*
2-Fluorobiphenyl (Surr)	*86*		*44 - 102*
2-Fluorophenol (Surr)	*53*		*10 - 84*
Nitrobenzene-d5 (Surr)	*81*		*38 - 113*
p-Terphenyl-d14 (Surr)	*94*		*34 - 128*
Phenol-d5 (Surr)	*35*		*10 - 67*

Lab Sample ID: MB 410-31473/1-A
Matrix: Solid
Analysis Batch: 31721

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 31473

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	ND		37	17	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
2,4-Dichlorophenol	ND		43	20	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
2,4-Dimethylphenol	ND		67	30	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
2,4-Dinitrophenol	ND		1000	330	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
2,4-Dinitrotoluene	ND		170	67	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
2,4,5-Trichlorophenol	ND		67	30	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
2,4,6-Trichlorophenol	ND		57	27	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
2,2'-oxybis[1-chloropropane]	ND		43	20	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Di-n-butyl phthalate	ND		170	67	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Di-n-octyl phthalate	ND		170	67	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Benzo[a]anthracene	ND		17	6.7	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Benzo[a]pyrene	ND		17	3.3	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Benzo[b]fluoranthene	ND		17	3.3	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Benzo[g,h,i]perylene	ND		17	3.3	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Benzo[k]fluoranthene	ND		17	3.3	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Acenaphthene	ND		17	3.3	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Acenaphthylene	ND		17	3.3	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Acetophenone	ND		50	17	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Anthracene	ND		17	3.3	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Atrazine	ND		430	200	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Benzaldehyde	ND		170	67	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Butylbenzylphthalate	ND		170	67	ug/Kg		08/10/20 16:29	08/11/20 11:13	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-31473/1-A
Matrix: Solid
Analysis Batch: 31721

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 31473

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Caprolactam	ND		170	33	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Carbazole	ND		37	17	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Chrysene	ND		17	3.3	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Dibenz(a,h)anthracene	ND		17	6.7	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Dibenzofuran	ND		37	17	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Diethyl phthalate	ND		170	67	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Dimethyl phthalate	ND		170	67	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Hexachlorobenzene	ND		17	6.7	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Hexachlorobutadiene	ND		77	37	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Hexachlorocyclopentadiene	ND		500	200	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Hexachloroethane	ND		170	33	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Fluoranthene	ND		17	3.3	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Fluorene	ND		17	3.3	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Indeno[1,2,3-cd]pyrene	ND		17	3.3	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Isophorone	ND		37	17	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
N-Nitrosodi-n-propylamine	ND		50	23	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
N-Nitrosodiphenylamine	ND		37	17	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Naphthalene	ND		17	6.7	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Nitrobenzene	ND		67	27	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Pentachlorophenol	ND		170	67	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Phenanthrene	ND		17	3.3	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Phenol	ND		37	17	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Pyrene	ND		17	3.3	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
2-Chloronaphthalene	ND		33	6.7	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
2-Chlorophenol	ND		37	17	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
2-Methylnaphthalene	ND		33	3.3	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
2-Methylphenol	ND		67	17	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
2-Nitroaniline	ND		50	17	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
2-Nitrophenol	ND		57	27	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
3,3'-Dichlorobenzidine	ND		330	100	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
3-Nitroaniline	ND		170	67	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
4,6-Dinitro-2-methylphenol	ND		500	230	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
4-Bromophenyl-phenylether	ND		50	23	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
4-Methylphenol	ND		50	17	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
4-Nitroaniline	ND		170	67	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
4-Nitrophenol	ND		500	170	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Bis(2-chloroethoxy)methane	ND		37	17	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Bis(2-chloroethyl)ether	ND		50	23	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
Bis(2-ethylhexyl) phthalate	ND		170	67	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
2,6-Dinitrotoluene	ND		50	23	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
4-Chloro-3-methylphenol	ND		50	23	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
4-Chloroaniline	ND		170	33	ug/Kg		08/10/20 16:29	08/11/20 11:13	1
4-Chlorophenyl-phenyl ether	ND		43	20	ug/Kg		08/10/20 16:29	08/11/20 11:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*84*		*10 - 136*	*08/10/20 16:29*	*08/11/20 11:13*	*1*
2-Fluorobiphenyl (Surr)	*89*		*34 - 117*	*08/10/20 16:29*	*08/11/20 11:13*	*1*
2-Fluorophenol (Surr)	*79*		*18 - 115*	*08/10/20 16:29*	*08/11/20 11:13*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-31473/1-A
Matrix: Solid
Analysis Batch: 31721

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 31473

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	75		23 - 115	08/10/20 16:29	08/11/20 11:13	1
p-Terphenyl-d14 (Surr)	108		35 - 135	08/10/20 16:29	08/11/20 11:13	1
Phenol-d5 (Surr)	80		21 - 112	08/10/20 16:29	08/11/20 11:13	1

Lab Sample ID: LCS 410-31473/16-A
Matrix: Solid
Analysis Batch: 31721

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31473

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	92		10 - 136
2-Fluorobiphenyl (Surr)	77		34 - 117
2-Fluorophenol (Surr)	74		18 - 115
Nitrobenzene-d5 (Surr)	65		23 - 115
p-Terphenyl-d14 (Surr)	93		35 - 135
Phenol-d5 (Surr)	80		21 - 112

Lab Sample ID: LCS 410-31473/2-A
Matrix: Solid
Analysis Batch: 31721

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31473

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	1670	1540		ug/Kg		92	59 - 106
2,4-Dichlorophenol	1670	1510		ug/Kg		90	57 - 115
2,4-Dimethylphenol	1670	1260		ug/Kg		76	47 - 95
2,4-Dinitrophenol	3340	2660		ug/Kg		79	34 - 136
2,4-Dinitrotoluene	1680	1600		ug/Kg		95	61 - 121
2,4,5-Trichlorophenol	1670	1580		ug/Kg		94	62 - 121
2,4,6-Trichlorophenol	1670	1610		ug/Kg		96	60 - 120
2,2'-oxybis[1-chloropropane]	1670	1290		ug/Kg		77	44 - 105
Di-n-butyl phthalate	1670	1770		ug/Kg		106	70 - 126
Di-n-octyl phthalate	1670	1770		ug/Kg		106	65 - 139
Benzo[a]anthracene	1670	1610		ug/Kg		97	68 - 120
Benzo[a]pyrene	1670	1780		ug/Kg		106	68 - 119
Benzo[b]fluoranthene	1670	1720		ug/Kg		103	67 - 125
Benzo[g,h,i]perylene	1670	1720		ug/Kg		103	68 - 125
Benzo[k]fluoranthene	1670	1670		ug/Kg		100	66 - 122
Acenaphthene	1670	1500		ug/Kg		90	61 - 112
Acenaphthylene	1670	1640		ug/Kg		98	60 - 124
Acetophenone	1670	1350		ug/Kg		81	48 - 109
Anthracene	1670	1740		ug/Kg		104	67 - 120
Atrazine	1680	1820		ug/Kg		108	70 - 129
Benzaldehyde	1680	782		ug/Kg		46	20 - 101
Butylbenzylphthalate	1670	1620		ug/Kg		97	69 - 125
Caprolactam	1680	1540		ug/Kg		92	62 - 119
Carbazole	1670	1740		ug/Kg		105	69 - 125
Chrysene	1670	1570		ug/Kg		94	66 - 111
Dibenz(a,h)anthracene	1670	1810		ug/Kg		108	69 - 135
Dibenzofuran	1670	1510		ug/Kg		90	62 - 113

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-31473/2-A
Matrix: Solid
Analysis Batch: 31721

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31473

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diethyl phthalate	1670	1560		ug/Kg		94	68 - 116
Dimethyl phthalate	1670	1520		ug/Kg		91	66 - 113
Hexachlorobenzene	1670	1670		ug/Kg		100	62 - 124
Hexachlorobutadiene	1680	1390		ug/Kg		83	39 - 120
Hexachlorocyclopentadiene	3350	2480		ug/Kg		74	13 - 115
Hexachloroethane	1680	1150		ug/Kg		69	30 - 112
Fluoranthene	1670	1720		ug/Kg		103	65 - 114
Fluorene	1670	1580		ug/Kg		94	62 - 110
Indeno[1,2,3-cd]pyrene	1670	1790		ug/Kg		107	64 - 130
Isophorone	1670	1430		ug/Kg		86	51 - 113
N-Nitrosodi-n-propylamine	1670	1380		ug/Kg		83	49 - 108
N-Nitrosodiphenylamine	1670	1760		ug/Kg		105	64 - 127
Naphthalene	1680	1400		ug/Kg		83	49 - 104
Nitrobenzene	1670	1400		ug/Kg		84	41 - 118
Pentachlorophenol	1680	1770		ug/Kg		105	40 - 131
Phenanthrene	1670	1680		ug/Kg		100	67 - 116
Phenol	1670	1420		ug/Kg		85	57 - 107
Pyrene	1680	1560		ug/Kg		93	67 - 109
2-Chloronaphthalene	1670	1370		ug/Kg		82	48 - 123
2-Chlorophenol	1670	1370		ug/Kg		82	51 - 109
2-Methylnaphthalene	1670	1460		ug/Kg		88	52 - 104
2-Methylphenol	1670	1460		ug/Kg		87	52 - 116
2-Nitroaniline	1670	1450		ug/Kg		87	65 - 132
2-Nitrophenol	1670	1390		ug/Kg		83	50 - 115
3,3'-Dichlorobenzidine	1670	1240		ug/Kg		74	18 - 114
3-Nitroaniline	1670	1480		ug/Kg		88	65 - 125
4,6-Dinitro-2-methylphenol	1670	1500		ug/Kg		90	56 - 135
4-Bromophenyl-phenylether	1680	1660		ug/Kg		99	64 - 120
4-Methylphenol	1670	1430		ug/Kg		86	52 - 121
4-Nitroaniline	1670	1370		ug/Kg		82	45 - 99
4-Nitrophenol	1670	1480		ug/Kg		88	54 - 125
Bis(2-chloroethoxy)methane	1680	1440		ug/Kg		86	52 - 110
Bis(2-chloroethyl)ether	1680	1270		ug/Kg		76	44 - 104
Bis(2-ethylhexyl) phthalate	1680	1700		ug/Kg		102	65 - 132
2,6-Dinitrotoluene	1680	1660		ug/Kg		99	66 - 122
4-Chloro-3-methylphenol	1670	1560		ug/Kg		94	62 - 117
4-Chloroaniline	1670	1170		ug/Kg		70	24 - 105
4-Chlorophenyl-phenyl ether	1670	1550		ug/Kg		93	58 - 110

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*88*		*10 - 136*
2-Fluorobiphenyl (Surr)	*86*		*34 - 117*
2-Fluorophenol (Surr)	*78*		*18 - 115*
Nitrobenzene-d5 (Surr)	*75*		*23 - 115*
p-Terphenyl-d14 (Surr)	*90*		*35 - 135*
Phenol-d5 (Surr)	*81*		*21 - 112*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-31473/17-A
Matrix: Solid
Analysis Batch: 31721

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 31473

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	89		10 - 136
2-Fluorobiphenyl (Surr)	74		34 - 117
2-Fluorophenol (Surr)	71		18 - 115
Nitrobenzene-d5 (Surr)	64		23 - 115
p-Terphenyl-d14 (Surr)	90		35 - 135
Phenol-d5 (Surr)	74		21 - 112

Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-28362/1-A
Matrix: Solid
Analysis Batch: 29205

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 28362

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor (1C)	ND		0.000050	0.000020	mg/L		07/31/20 09:10	08/04/20 06:35	1
Heptachlor epoxide (1C)	ND		0.000050	0.000012	mg/L		07/31/20 09:10	08/04/20 06:35	1
Endrin (1C)	ND		0.00010	0.000040	mg/L		07/31/20 09:10	08/04/20 06:35	1
gamma-BHC (Lindane) (1C)	ND		0.000050	0.000010	mg/L		07/31/20 09:10	08/04/20 06:35	1
Methoxychlor (2C)	ND		0.00050	0.00015	mg/L		07/31/20 09:10	08/04/20 06:35	1
Toxaphene (1C)	ND		0.015	0.0050	mg/L		07/31/20 09:10	08/04/20 06:35	1
Chlordane (n.o.s.) (1C)	ND		0.0025	0.00080	mg/L		07/31/20 09:10	08/04/20 06:35	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	84		10 - 164	07/31/20 09:10	08/04/20 06:35	1
DCB Decachlorobiphenyl (Surr) (2C)	80		10 - 164	07/31/20 09:10	08/04/20 06:35	1
Tetrachloro-m-xylene (Surr) (1C)	68		39 - 139	07/31/20 09:10	08/04/20 06:35	1
Tetrachloro-m-xylene (Surr) (2C)	67		39 - 139	07/31/20 09:10	08/04/20 06:35	1

Lab Sample ID: LCS 410-28362/2-A
Matrix: Solid
Analysis Batch: 29205

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 28362

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Heptachlor (2C)	0.000250	0.000193		mg/L		77	38 - 135
Heptachlor epoxide (2C)	0.000375	0.000313		mg/L		84	56 - 132
Endrin (2C)	0.000125	0.000124		mg/L		99	60 - 151
gamma-BHC (Lindane) (2C)	0.000250	0.000222		mg/L		89	51 - 132
Methoxychlor (2C)	0.00100	0.00116		mg/L		116	58 - 165

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr) (1C)	82		10 - 164
DCB Decachlorobiphenyl (Surr) (2C)	78		10 - 164
Tetrachloro-m-xylene (Surr) (1C)	69		39 - 139
Tetrachloro-m-xylene (Surr) (2C)	68		39 - 139

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 410-28362/3-A
Matrix: Solid
Analysis Batch: 29205

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 28362

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Heptachlor (2C)			0.000250	0.000197		mg/L		79	38 - 135	2	30
Heptachlor epoxide (2C)			0.000375	0.000300		mg/L		80	56 - 132	4	30
Endrin (2C)			0.000125	0.000119		mg/L		96	60 - 151	3	30
gamma-BHC (Lindane) (2C)			0.000250	0.000215		mg/L		86	51 - 132	3	30
Methoxychlor (2C)			0.00100	0.00105		mg/L		104	58 - 165	11	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr) (1C)	*76*		*10 - 164*
DCB Decachlorobiphenyl (Surr) (2C)	*73*		*10 - 164*
Tetrachloro-m-xylene (Surr) (1C)	*67*		*39 - 139*
Tetrachloro-m-xylene (Surr) (2C)	*67*		*39 - 139*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 410-31952/1-A
Matrix: Solid
Analysis Batch: 32712

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 31952

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (2C)	ND		17	3.6	ug/Kg		08/11/20 16:20	08/12/20 15:01	1
PCB-1221 (2C)	ND		17	4.6	ug/Kg		08/11/20 16:20	08/12/20 15:01	1
PCB-1232 (2C)	ND		17	8.0	ug/Kg		08/11/20 16:20	08/12/20 15:01	1
PCB-1242 (2C)	ND		17	3.3	ug/Kg		08/11/20 16:20	08/12/20 15:01	1
PCB-1248 (2C)	ND		17	3.3	ug/Kg		08/11/20 16:20	08/12/20 15:01	1
PCB-1254 (2C)	ND		17	3.3	ug/Kg		08/11/20 16:20	08/12/20 15:01	1
PCB-1260 (2C)	ND		17	4.9	ug/Kg		08/11/20 16:20	08/12/20 15:01	1
Polychlorinated biphenyls, Total (2C)	ND		17	8.0	ug/Kg		08/11/20 16:20	08/12/20 15:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*107*		*45 - 143*	*08/11/20 16:20*	*08/12/20 15:01*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*105*		*45 - 143*	*08/11/20 16:20*	*08/12/20 15:01*	*1*
Tetrachloro-m-xylene (1C)	*98*		*53 - 140*	*08/11/20 16:20*	*08/12/20 15:01*	*1*
Tetrachloro-m-xylene (2C)	*101*		*53 - 140*	*08/11/20 16:20*	*08/12/20 15:01*	*1*

Lab Sample ID: LCS 410-31952/2-A
Matrix: Solid
Analysis Batch: 32712

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31952

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016 (2C)			167	167		ug/Kg		100	76 - 121
PCB-1260 (2C)			167	183		ug/Kg		110	79 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr) (1C)	*104*		*45 - 143*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 410-31952/2-A
Matrix: Solid
Analysis Batch: 32712

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31952

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr) (2C)	*112*		*45 - 143*
Tetrachloro-m-xylene (1C)	*98*		*53 - 140*
Tetrachloro-m-xylene (2C)	*103*		*53 - 140*

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 410-30845/1-A
Matrix: Solid
Analysis Batch: 31650

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 30845

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP) (1C)	ND		1.7	0.75	ug/Kg		08/07/20 15:48	08/11/20 00:14	1
Silvex (2,4,5-TP) (2C)	ND		1.7	0.75	ug/Kg		08/07/20 15:48	08/11/20 00:14	1
2,4-D (1C)	ND		36	12	ug/Kg		08/07/20 15:48	08/11/20 00:14	1
2,4-D (2C)	ND		36	12	ug/Kg		08/07/20 15:48	08/11/20 00:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid (Surr) (1C)	*34*		*27 - 136*	*08/07/20 15:48*	*08/11/20 00:14*	*1*
2,4-Dichlorophenylacetic acid (Surr) (2C)	*37*		*27 - 136*	*08/07/20 15:48*	*08/11/20 00:14*	*1*

Lab Sample ID: LCS 410-30845/2-A
Matrix: Solid
Analysis Batch: 31650

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 30845

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silvex (2,4,5-TP) (1C)	8.33	5.43		ug/Kg		65	49 - 133
Silvex (2,4,5-TP) (2C)	8.33	5.29		ug/Kg		63	49 - 133
2,4-D (1C)	83.6	45.9	*L	ug/Kg		55	57 - 142
2,4-D (2C)	83.6	46.7	*L	ug/Kg		56	57 - 142

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid (Surr) (1C)	*57*		*27 - 136*
2,4-Dichlorophenylacetic acid (Surr) (2C)	*56*		*27 - 136*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-27594/1-A
Matrix: Solid
Analysis Batch: 29159

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27594

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.4	0.57	mg/Kg		07/29/20 11:28	08/03/20 17:58	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 410-27594/2-A
Matrix: Solid
Analysis Batch: 29159

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27594

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	2.61	2.52		mg/Kg		97	80 - 120

Lab Sample ID: MB 410-28078/1-A
Matrix: Solid
Analysis Batch: 29705

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 28078

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.030	0.016	mg/L		07/30/20 11:54	08/04/20 19:55	1
Barium	ND		0.0050	0.0010	mg/L		07/30/20 11:54	08/04/20 19:55	1
Cadmium	ND		0.0050	0.0010	mg/L		07/30/20 11:54	08/04/20 19:55	1
Chromium	ND		0.015	0.0016	mg/L		07/30/20 11:54	08/04/20 19:55	1
Lead	0.00779	J B	0.015	0.0071	mg/L		07/30/20 11:54	08/04/20 19:55	1
Selenium	ND		0.050	0.016	mg/L		07/30/20 11:54	08/04/20 19:55	1
Silver	ND		0.010	0.0050	mg/L		07/30/20 11:54	08/04/20 19:55	1

Lab Sample ID: LCS 410-28078/2-A
Matrix: Solid
Analysis Batch: 29705

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 28078

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0600	0.0649		mg/L		108	80 - 120
Barium	0.0100	0.00969		mg/L		97	80 - 120
Cadmium	0.00996	0.0103		mg/L		103	80 - 120
Chromium	0.0300	0.0321		mg/L		107	80 - 120
Lead	0.0300	0.0337		mg/L		112	80 - 120
Selenium	0.101	0.125	*H	mg/L		124	80 - 120
Silver	0.0200	0.0167		mg/L		84	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 410-28079/1-A
Matrix: Solid
Analysis Batch: 29376

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 28079

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.079	ug/L		07/30/20 12:01	08/04/20 07:15	1

Lab Sample ID: LCS 410-28079/2-A
Matrix: Solid
Analysis Batch: 29376

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 28079

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.00	1.01		ug/L		101	80 - 118

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8905-1

Method: 9012 - Cyanide, Reactive

Lab Sample ID: MB 410-29457/1-A
Matrix: Solid
Analysis Batch: 29677

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29457

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive	ND		60	20	mg/Kg		08/04/20 11:38	08/05/20 00:26	1

Lab Sample ID: LCS 410-29457/2-A
Matrix: Solid
Analysis Batch: 29677

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29457

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Reactive	963	ND		mg/Kg		3	0 - 5.14

Method: 9034 - Sulfide, Reactive

Lab Sample ID: MB 410-29457/1-A
Matrix: Solid
Analysis Batch: 29501

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29457

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Reactive	ND		160	54	mg/Kg		08/04/20 11:38	08/04/20 14:19	1

Lab Sample ID: LCS 410-29457/18-A
Matrix: Solid
Analysis Batch: 29501

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29457

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide, Reactive	538	423		mg/Kg		79	56 - 104

Method: 9045D - pH

Lab Sample ID: LCS 410-28397/1-A
Matrix: Solid
Analysis Batch: 28404

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.2		S.U.		102	95 - 105

Marginal Exceedance (ME) Summary

Client: Stantec Consulting Corp.
Job ID: 410-8905-1
Project/Site: PHL Penrose Drilling Sampling

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: LCS 410-28918/2-A
Client Sample ID: Lab Control Sample
Matrix: Solid
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	%Rec	%Rec. Limits	ME %Rec. Limits	Marginal Exceedance Status
1,1'-Biphenyl	1670	1070		ug/Kg	64	59 - 106	52 - 113	
2,4-Dichlorophenol	1670	1140		ug/Kg	68	57 - 115	47 - 125	
2,4-Dimethylphenol	1670	888		ug/Kg	53	47 - 95	39 - 103	
2,4-Dinitrophenol	3340	2480		ug/Kg	74	34 - 136	17 - 153	
2,4-Dinitrotoluene	1680	1150		ug/Kg	68	61 - 121	N/A	
2,4,5-Trichlorophenol	1670	1080		ug/Kg	64	62 - 121	52 - 131	
2,4,6-Trichlorophenol	1670	1160		ug/Kg	70	60 - 120	50 - 130	
2,2'-oxybis[1-chloropropane]	1670	886		ug/Kg	53	44 - 105	33 - 116	
Di-n-butyl phthalate	1670	1080	*L	ug/Kg	65	70 - 126	60 - 136	ME
Di-n-octyl phthalate	1670	974	*L	ug/Kg	58	65 - 139	53 - 152	ME
Benzo[a]anthracene	1670	1110	*L	ug/Kg	66	68 - 120	59 - 129	ME
Benzo[a]pyrene	1670	1070	*L	ug/Kg	64	68 - 119	59 - 128	ME
Benzo[b]fluoranthene	1670	1010	*L	ug/Kg	60	67 - 125	57 - 126	ME
Benzo[g,h,i]perylene	1670	1110	*L	ug/Kg	66	68 - 125	59 - 134	ME
Benzo[k]fluoranthene	1670	1110		ug/Kg	67	66 - 122	56 - 131	
Acenaphthene	1670	1040		ug/Kg	62	61 - 112	53 - 120	
Acenaphthylene	1670	1130		ug/Kg	68	60 - 124	49 - 135	
Acetophenone	1670	953		ug/Kg	57	48 - 109	38 - 119	
Anthracene	1670	1140		ug/Kg	68	67 - 120	58 - 128	
Atrazine	1680	1070	*L	ug/Kg	64	70 - 129	60 - 139	ME
Benzaldehyde	1680	844		ug/Kg	50	20 - 101	10 - 115	
Butylbenzylphthalate	1670	1040	*L	ug/Kg	62	69 - 125	60 - 135	ME
Caprolactam	1680	1060		ug/Kg	63	62 - 119	52 - 129	
Carbazole	1670	1140	*L	ug/Kg	68	69 - 125	60 - 134	ME
Chrysene	1670	1090		ug/Kg	66	66 - 111	58 - 119	
Dibenz(a,h)anthracene	1670	1150		ug/Kg	69	69 - 135	58 - 146	
Dibenzofuran	1670	1140		ug/Kg	69	62 - 113	53 - 121	
Diethyl phthalate	1670	1090	*L	ug/Kg	66	68 - 116	60 - 124	ME
Dimethyl phthalate	1670	1100		ug/Kg	66	66 - 113	58 - 121	
Hexachlorobenzene	1670	1180		ug/Kg	71	62 - 124	52 - 134	
Hexachlorobutadiene	1680	1110		ug/Kg	66	39 - 120	26 - 133	
Hexachlorocyclopentadiene	3350	1940		ug/Kg	58	13 - 115	10 - 132	
Hexachloroethane	1680	822		ug/Kg	49	30 - 112	16 - 126	
Fluoranthene	1670	1190		ug/Kg	72	65 - 114	56 - 122	
Fluorene	1670	1160		ug/Kg	70	62 - 110	54 - 117	
Indeno[1,2,3-cd]pyrene	1670	1140		ug/Kg	68	64 - 130	54 - 141	
Isophorone	1670	1060		ug/Kg	63	51 - 113	40 - 132	
N-Nitrosodi-n-propylamine	1670	935		ug/Kg	56	49 - 108	39 - 118	
N-Nitrosodiphenylamine	1670	1150		ug/Kg	69	64 - 127	53 - 137	
Naphthalene	1680	1020		ug/Kg	61	49 - 104	40 - 113	
Nitrobenzene	1670	1020		ug/Kg	61	41 - 118	28 - 131	
Pentachlorophenol	1680	1230		ug/Kg	73	40 - 131	25 - 146	
Phenanthrene	1670	1140		ug/Kg	68	67 - 116	58 - 125	
Phenol	1670	988		ug/Kg	59	57 - 107	42 - 116	
Pyrene	1680	1100	*L	ug/Kg	66	67 - 109	60 - 116	ME
2-Chloronaphthalene	1670	1160		ug/Kg	69	48 - 123	36 - 135	
2-Chlorophenol	1670	994		ug/Kg	59	51 - 109	42 - 118	
2-Methylnaphthalene	1670	1100		ug/Kg	66	52 - 104	44 - 112	
2-Methylphenol	1670	990		ug/Kg	59	52 - 116	41 - 127	

Marginal Exceedance (ME) Summary

Client: Stantec Consulting Corp.
Job ID: 410-8905-1
Project/Site: PHL Penrose Drilling Sampling

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-28918/2-A
Client Sample ID: Lab Control Sample
Matrix: Solid
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	%Rec	%Rec. Limits	ME %Rec. Limits	Marginal Exceedance Status
2-Nitroaniline	1670	1110		ug/Kg	67	65 - 132	54 - 143	
2-Nitrophenol	1670	1030		ug/Kg	62	50 - 115	39 - 125	
3,3'-Dichlorobenzidine	1670	749		ug/Kg	45	18 - 114	10 - 130	
3-Nitroaniline	1670	1100		ug/Kg	66	65 - 125	55 - 135	
4,6-Dinitro-2-methylphenol	1670	1260		ug/Kg	76	56 - 135	43 - 148	
4-Bromophenyl-phenylether	1680	1170		ug/Kg	70	64 - 120	54 - 129	
4-Methylphenol	1670	1020		ug/Kg	61	52 - 121	11 - 133	
4-Nitroaniline	1670	885		ug/Kg	53	45 - 99	36 - 108	
4-Nitrophenol	1670	968		ug/Kg	58	54 - 125	42 - 137	
Bis(2-chloroethoxy)methane	1680	1050		ug/Kg	63	52 - 110	42 - 120	
Bis(2-chloroethyl)ether	1680	902		ug/Kg	54	44 - 104	34 - 114	
Bis(2-ethylhexyl) phthalate	1680	1000	*L	ug/Kg	60	65 - 132	54 - 143	ME
2,6-Dinitrotoluene	1680	1140		ug/Kg	68	66 - 122	N/A	
4-Chloro-3-methylphenol	1670	1160		ug/Kg	70	62 - 117	53 - 126	
4-Chloroaniline	1670	900		ug/Kg	54	24 - 105	11 - 119	
4-Chlorophenyl-phenyl ether	1670	1180		ug/Kg	71	58 - 110	49 - 119	

Summary

Number of Analytes Reported	Number of Marginal Exceedances Allowed	Number of Marginal Exceedances Found
65	3	12

ME = Marginal Exceedance

GC/MS VOA

Leach Batch: 27491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8905-1	CD_AOI4_WC_20200727	TCLP	Solid	1311	

Prep Batch: 27557

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8905-1	CD_AOI4_WC_20200727	Total/NA	Solid	5035	

Analysis Batch: 28594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8905-1	CD_AOI4_WC_20200727	TCLP	Solid	8260C	27491
MB 410-28594/6	Method Blank	Total/NA	Solid	8260C	
LCS 410-28594/4	Lab Control Sample	Total/NA	Solid	8260C	

Analysis Batch: 29545

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8905-1	CD_AOI4_WC_20200727	Total/NA	Solid	8260C	27557
MB 410-29545/8	Method Blank	Total/NA	Solid	8260C	
LCS 410-29545/5	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 410-29545/6	Lab Control Sample Dup	Total/NA	Solid	8260C	

GC/MS Semi VOA

Leach Batch: 27483

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8905-1	CD_AOI4_WC_20200727	TCLP	Solid	1311	

Prep Batch: 28918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8905-1	CD_AOI4_WC_20200727	Total/NA	Solid	3546	
MB 410-28918/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-28918/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 29301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8905-1	CD_AOI4_WC_20200727	Total/NA	Solid	8270D	28918
MB 410-28918/1-A	Method Blank	Total/NA	Solid	8270D	28918
LCS 410-28918/2-A	Lab Control Sample	Total/NA	Solid	8270D	28918

Prep Batch: 29727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8905-1	CD_AOI4_WC_20200727	TCLP	Solid	3510C	27483
MB 410-29727/1-A	Method Blank	Total/NA	Solid	3510C	
LCS 410-29727/2-A	Lab Control Sample	Total/NA	Solid	3510C	
LCSD 410-29727/3-A	Lab Control Sample Dup	Total/NA	Solid	3510C	

Analysis Batch: 30087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8905-1	CD_AOI4_WC_20200727	TCLP	Solid	8270D	29727
MB 410-29727/1-A	Method Blank	Total/NA	Solid	8270D	29727
LCS 410-29727/2-A	Lab Control Sample	Total/NA	Solid	8270D	29727
LCSD 410-29727/3-A	Lab Control Sample Dup	Total/NA	Solid	8270D	29727

GC/MS Semi VOA

Prep Batch: 31473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8905-1 - RE	CD_AOI4_WC_20200727	Total/NA	Solid	3546	
MB 410-31473/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-31473/16-A	Lab Control Sample	Total/NA	Solid	3546	
LCS 410-31473/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 410-31473/17-A	Lab Control Sample Dup	Total/NA	Solid	3546	
410-8905-1 MS - RE	CD_AOI4_WC_20200727	Total/NA	Solid	3546	
410-8905-1 MSD - RE	CD_AOI4_WC_20200727	Total/NA	Solid	3546	

Analysis Batch: 31721

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8905-1 - RE	CD_AOI4_WC_20200727	Total/NA	Solid	8270D	31473
MB 410-31473/1-A	Method Blank	Total/NA	Solid	8270D	31473
LCS 410-31473/16-A	Lab Control Sample	Total/NA	Solid	8270D	31473
LCS 410-31473/2-A	Lab Control Sample	Total/NA	Solid	8270D	31473
LCSD 410-31473/17-A	Lab Control Sample Dup	Total/NA	Solid	8270D	31473
410-8905-1 MS - RE	CD_AOI4_WC_20200727	Total/NA	Solid	8270D	31473
410-8905-1 MSD - RE	CD_AOI4_WC_20200727	Total/NA	Solid	8270D	31473

GC Semi VOA

Leach Batch: 27483

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8905-1	CD_AOI4_WC_20200727	TCLP	Solid	1311	

Prep Batch: 28362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8905-1	CD_AOI4_WC_20200727	TCLP	Solid	3510C	27483
MB 410-28362/1-A	Method Blank	Total/NA	Solid	3510C	
LCS 410-28362/2-A	Lab Control Sample	Total/NA	Solid	3510C	
LCSD 410-28362/3-A	Lab Control Sample Dup	Total/NA	Solid	3510C	

Analysis Batch: 29205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8905-1	CD_AOI4_WC_20200727	TCLP	Solid	8081A	28362
MB 410-28362/1-A	Method Blank	Total/NA	Solid	8081A	28362
LCS 410-28362/2-A	Lab Control Sample	Total/NA	Solid	8081A	28362
LCSD 410-28362/3-A	Lab Control Sample Dup	Total/NA	Solid	8081A	28362

Prep Batch: 30845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8905-1	CD_AOI4_WC_20200727	Total/NA	Solid	8151A	
MB 410-30845/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 410-30845/2-A	Lab Control Sample	Total/NA	Solid	8151A	

Analysis Batch: 31650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8905-1	CD_AOI4_WC_20200727	Total/NA	Solid	8151A	30845
MB 410-30845/1-A	Method Blank	Total/NA	Solid	8151A	30845
LCS 410-30845/2-A	Lab Control Sample	Total/NA	Solid	8151A	30845

GC Semi VOA

Prep Batch: 31952

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8905-1	CD_AOI4_WC_20200727	Total/NA	Solid	3546	
MB 410-31952/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-31952/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 32712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8905-1	CD_AOI4_WC_20200727	Total/NA	Solid	8082A	31952
MB 410-31952/1-A	Method Blank	Total/NA	Solid	8082A	31952
LCS 410-31952/2-A	Lab Control Sample	Total/NA	Solid	8082A	31952

Metals

Leach Batch: 27483

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8905-1	CD_AOI4_WC_20200727	TCLP	Solid	1311	

Prep Batch: 27594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8905-1	CD_AOI4_WC_20200727	Total/NA	Solid	3050B	
MB 410-27594/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 410-27594/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Prep Batch: 28078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8905-1	CD_AOI4_WC_20200727	TCLP	Solid	3010A	27483
MB 410-28078/1-A	Method Blank	Total/NA	Solid	3010A	
LCS 410-28078/2-A	Lab Control Sample	Total/NA	Solid	3010A	

Prep Batch: 28079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8905-1	CD_AOI4_WC_20200727	TCLP	Solid	7470A	27483
MB 410-28079/1-A	Method Blank	Total/NA	Solid	7470A	
LCS 410-28079/2-A	Lab Control Sample	Total/NA	Solid	7470A	

Analysis Batch: 29159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8905-1	CD_AOI4_WC_20200727	Total/NA	Solid	6010C	27594
MB 410-27594/1-A	Method Blank	Total/NA	Solid	6010C	27594
LCS 410-27594/2-A	Lab Control Sample	Total/NA	Solid	6010C	27594

Analysis Batch: 29376

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8905-1	CD_AOI4_WC_20200727	TCLP	Solid	7470A	28079
MB 410-28079/1-A	Method Blank	Total/NA	Solid	7470A	28079
LCS 410-28079/2-A	Lab Control Sample	Total/NA	Solid	7470A	28079

Analysis Batch: 29705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8905-1	CD_AOI4_WC_20200727	TCLP	Solid	6010C	28078
MB 410-28078/1-A	Method Blank	Total/NA	Solid	6010C	28078
LCS 410-28078/2-A	Lab Control Sample	Total/NA	Solid	6010C	28078

General Chemistry

Analysis Batch: 27407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8905-1	CD_AOI4_WC_20200727	Total/NA	Solid	Moisture	

Analysis Batch: 27834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8905-1	CD_AOI4_WC_20200727	Total/NA	Solid	261.21	

Leach Batch: 28397

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8905-1	CD_AOI4_WC_20200727	Soluble	Solid	DI Leach	
LCS 410-28397/1-A	Lab Control Sample	Soluble	Solid	DI Leach	

Analysis Batch: 28404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8905-1	CD_AOI4_WC_20200727	Soluble	Solid	9045D	28397
LCS 410-28397/1-A	Lab Control Sample	Soluble	Solid	9045D	28397

Prep Batch: 29457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8905-1	CD_AOI4_WC_20200727	Total/NA	Solid	7.3.4	
MB 410-29457/1-A	Method Blank	Total/NA	Solid	7.3.4	
LCS 410-29457/18-A	Lab Control Sample	Total/NA	Solid	7.3.4	
LCS 410-29457/2-A	Lab Control Sample	Total/NA	Solid	7.3.4	

Analysis Batch: 29501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8905-1	CD_AOI4_WC_20200727	Total/NA	Solid	9034	29457
MB 410-29457/1-A	Method Blank	Total/NA	Solid	9034	29457
LCS 410-29457/18-A	Lab Control Sample	Total/NA	Solid	9034	29457

Analysis Batch: 29677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8905-1	CD_AOI4_WC_20200727	Total/NA	Solid	9012	29457
MB 410-29457/1-A	Method Blank	Total/NA	Solid	9012	29457
LCS 410-29457/2-A	Lab Control Sample	Total/NA	Solid	9012	29457

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8905-1

Client Sample ID: CD_AOI4_WC_20200727

Lab Sample ID: 410-8905-1

Date Collected: 07/27/20 14:30
Matrix: Solid
Date Received: 07/28/20 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			27491	07/29/20 08:39	UNWS	ELLE
TCLP	Analysis	8260C		20	28594	08/01/20 03:25	ULCP	ELLE
TCLP	Leach	1311			27483	07/29/20 08:33	UNWS	ELLE
TCLP	Prep	3510C			29727	08/05/20 07:09	R9CT	ELLE
TCLP	Analysis	8270D		1	30087	08/06/20 04:25	ULM3	ELLE
TCLP	Leach	1311			27483	07/29/20 08:33	UNWS	ELLE
TCLP	Prep	3510C			28362	07/31/20 09:10	QTH7	ELLE
TCLP	Analysis	8081A		10	29205	08/04/20 08:12	UAMZ	ELLE
TCLP	Leach	1311			27483	07/29/20 08:33	UNWS	ELLE
TCLP	Prep	3010A			28078	07/30/20 11:54	UJL8	ELLE
TCLP	Analysis	6010C		1	29705	08/04/20 20:33	LR7D	ELLE
TCLP	Leach	1311			27483	07/29/20 08:33	UNWS	ELLE
TCLP	Prep	7470A			28079	07/30/20 12:01	UAMX	ELLE
TCLP	Analysis	7470A		1	29376	08/04/20 07:27	LR7D	ELLE
Total/NA	Analysis	261.21		1	27834	07/30/20 01:20	UDS7	ELLE
Total/NA	Prep	7.3.4			29457	08/04/20 11:38	P8DZ	ELLE
Total/NA	Analysis	9012		1	29677	08/05/20 00:49	QU5I	ELLE
Total/NA	Prep	7.3.4			29457	08/04/20 11:38	P8DZ	ELLE
Total/NA	Analysis	9034		1	29501	08/04/20 14:19	P8DZ	ELLE
Soluble	Leach	DI Leach			28397	07/31/20 08:28	MFV9	ELLE
Soluble	Analysis	9045D		1	28404	07/31/20 08:36	MFV9	ELLE
Total/NA	Analysis	Moisture		1	27407	07/29/20 06:56	UVJN	ELLE

Client Sample ID: CD_AOI4_WC_20200727

Lab Sample ID: 410-8905-1

Date Collected: 07/27/20 14:30
Matrix: Solid
Date Received: 07/28/20 15:55
Percent Solids: 58.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			27557	07/29/20 10:06	Z8FW	ELLE
Total/NA	Analysis	8260C		50	29545	08/05/20 02:12	R64Z	ELLE
Total/NA	Prep	3546	RE		31473	08/10/20 16:29	DN9W	ELLE
Total/NA	Analysis	8270D	RE	1	31721	08/11/20 14:11	WKV3	ELLE
Total/NA	Prep	3546			28918	08/03/20 09:18	A2VL	ELLE
Total/NA	Analysis	8270D		1	29301	08/04/20 19:24	SJ89	ELLE
Total/NA	Prep	3546			31952	08/11/20 16:20	DN9W	ELLE
Total/NA	Analysis	8082A		1	32712	08/12/20 16:04	JC94	ELLE
Total/NA	Prep	8151A			30845	08/07/20 15:48	DN9W	ELLE
Total/NA	Analysis	8151A		1	31650	08/11/20 01:20	JH5B	ELLE
Total/NA	Prep	3050B			27594	07/29/20 11:28	UAMX	ELLE
Total/NA	Analysis	6010C		1	29159	08/03/20 18:24	UCIG	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp. Job ID: 410-8905-1
Project/Site: PHL Penrose Drilling Sampling

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8081A	3510C	Solid	Chlordane (n.o.s.) (1C)
8082A	3546	Solid	Polychlorinated biphenyls, Total (1C)
9045D		Solid	Corrosivity
Moisture		Solid	Percent Moisture

Method Summary

Client: Stantec Consulting Corp.
Job ID: 410-8905-1
Project/Site: PHL Penrose Drilling Sampling

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
8081A	Organochlorine Pesticides (GC)	SW846	ELLE
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	ELLE
8151A	Herbicides (GC)	SW846	ELLE
6010C	Metals (ICP)	SW846	ELLE
7470A	Mercury (CVAA)	SW846	ELLE
261.21	Ignitability	40CFR261	ELLE
9012	Cyanide, Reactive	SW846	ELLE
9034	Sulfide, Reactive	SW846	ELLE
9045D	pH	SW846	ELLE
Moisture	Percent Moisture	EPA	ELLE
1311	TCLP Extraction	SW846	ELLE
3010A	Preparation, Total Metals	SW846	ELLE
3050B	Preparation, Metals	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
3546	Microwave Extraction	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
5035	Closed System Purge and Trap	SW846	ELLE
7.3.3	Cyanide, Reactive	SW846	ELLE
7.3.4	Sulfide, Reactive	SW846	ELLE
7470A	Preparation, Mercury	SW846	ELLE
8151A	Extraction (Herbicides)	SW846	ELLE
DI Leach	Deionized Water Leaching Procedure	ASTM	ELLE

Protocol References:

40CFR261 = 40 CFR Part 261

ASTM = ASTM International

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8905-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-8905-1	CD_AOI4_WC_20200727	Solid	07/27/20 14:30	07/28/20 15:55	

Environmental Analysis Req[illegible]tody

eurofins | Lancaster Laboratories Environmental

For 410-8905 Chain of Custody only

Acct. # _____

COC # 608584

Client Information	
Client: Evergreen c/o Stantec	Acct. #: 16657
Project Name #: Waste Characterization PHL: Penrose Drilling Sampling	PWSID #:
Project Manager: Jennifer Menges Andrew Klingbeil	P.O. #: 213402602
Sampler: Dane Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Soil ☒ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☐ NPDES ☐ Surface ☐ | Other: _____

Analysis Requested — Preservation and Filtration Codes

For Lab Use Only
FSC: _____
SCR#: _____

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil ☒ Sediment	Water	Other:	Total # of Containers	Ignitability	Lead/Moisture	PCB 8082/3546	pH	SVOCs (soil) 8270	Reactivity	VOCs (soil) 8260	TCLP (soil) Metal, Pest/Herb SVOAs	TCLP (soil) VOCs		Remarks
CD-AOI4-WC-20200727	7/27/2020	1430	X		X			4							X				
CD-AOI4-WC-20200727	↓	1430		X	X			4	X	X	X	X	X	X		X	X		

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____
E-mail address: jennifer.menges@stantec.com andrew.klingbeil@stantec.com

Relinquished by	Date	Time	Received by	Date	Time
Dane	7/28/20	12:10	Pierre	7/28/20	12:10
Pierre	7/28/20	1545			
			Received by	7/28/20	1555

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

EDD Required? Yes No
If yes, format: EQUIS
Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____
Temperature upon receipt 4.9 °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT https://www.eurofinsus.com/coc
The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

KAM 7044 0919

Page 44 of 45 9/10/2020

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-8905-1

Login Number: 8905

List Source: Eurofins Lancaster Laboratories Env

List Number: 1

Creator: Sanchez, Melvin E

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-8907-1
Client Project/Site: PHL Penrose Drilling Sampling
Revision: 1

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Andrew Klingbeil

Authorized for release by:
11/5/2020 7:45:20 PM

Amek Carter, Project Manager
(717)556-7252
amekcarter@eurofinsus.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
11/5/2020 7:45:20 PM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 6
Client Sample Results 7
Surrogate Summary 9
QC Sample Results 10
QC Association Summary 18
Lab Chronicle 21
Certification Summary 22
Method Summary 23
Sample Summary 24
Chain of Custody 25
Receipt Checklists 27

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8907-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8907-1

Job ID: 410-8907-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-8907-1

Revision
The report being provided is a revision of the original report sent on 8/27/2020. The report (revision 1) is being revised due to: Sample ID Change - Updated sample ID for CD-3-W-25.0-20200728.

Receipt
The sample was received on 7/28/2020 3:55 PM; the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.3º C.

Receipt Exceptions
A trip blank was not submitted for analysis with the sample shipment and was not listed on the Chain of Custody (COC).

GC/MS VOA
Method 8260C/UST: The following sample CD-3-W-25D-20200728 (410-8907-1) had matrix interference with an internal standard t-Butyl alcohol-d10, therefore the GRO result is biased low.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
Method Filtration: The following sample was not filtered within 15 minutes of sample collection as required by the method: CD-3-W-25D-20200728 (410-8907-1). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8907-1

Client Sample ID: CD-3-W-25.0-20200728

Lab Sample ID: 410-8907-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	730		250	50	ug/L	50		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	290		25	1.5	ug/L	5		8260C/UST	Total/NA
Benzene	4500		50	10	ug/L	50		8260C/UST	Total/NA
C4-C12-TPH-GRO	44000		2500	1500	ug/L	50		8260C/UST	Total/NA
Ethylbenzene	760		50	20	ug/L	50		8260C/UST	Total/NA
Isopropylbenzene	35		25	1.0	ug/L	5		8260C/UST	Total/NA
Methyl tertiary butyl ether	1.2	J	5.0	1.0	ug/L	5		8260C/UST	Total/NA
Toluene	3800		50	10	ug/L	50		8260C/UST	Total/NA
Xylenes, Total	1900		30	7.0	ug/L	5		8260C/UST	Total/NA
2-Methyl-2-propanol	140	J	250	60	ug/L	5		8260C/UST	Total/NA
Phenanthrene	0.12	J	0.51	0.10	ug/L	1		8270D	Total/NA
Naphthalene - DL	280		5.1	1.0	ug/L	10		8270D	Total/NA
Ethane (1C)	2.0	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	7100		250	150	ug/L	50		RSK-175	Total/NA
Chloride	65		0.32	0.039	mg/L	1		EPA 300.0 R2.1	Total/NA
Sulfate	44		0.48	0.16	mg/L	1		EPA 300.0 R2.1	Total/NA
Calcium	27		0.20	0.096	mg/L	1		6010C	Total Recoverable
Iron	10		0.20	0.040	mg/L	1		6010C	Total Recoverable
Magnesium	12		0.10	0.040	mg/L	1		6010C	Total Recoverable
Potassium	4.8		0.50	0.20	mg/L	1		6010C	Total Recoverable
Sodium	49		1.0	0.24	mg/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	100		8.0	8.0	mg/L	1		2320B-2011	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CD-3-W-25.0-20200728

Date Collected: 07/28/20 10:10
Date Received: 07/28/20 15:55

Lab Sample ID: 410-8907-1

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**730**		250	50	ug/L			07/31/20 13:01	50
1,2-Dichloroethane	ND		5.0	1.5	ug/L			08/05/20 14:16	5
1,3,5-Trimethylbenzene	**290**		25	1.5	ug/L			08/05/20 14:16	5
Benzene	**4500**		50	10	ug/L			07/31/20 13:01	50
C4-C12-TPH-GRO	**44000**		2500	1500	ug/L			07/31/20 13:01	50
Ethylbenzene	**760**		50	20	ug/L			07/31/20 13:01	50
Isopropylbenzene	**35**		25	1.0	ug/L			08/05/20 14:16	5
Methyl tertiary butyl ether	**1.2**	**J**	5.0	1.0	ug/L			08/05/20 14:16	5
Toluene	**3800**		50	10	ug/L			07/31/20 13:01	50
Xylenes, Total	**1900**		30	7.0	ug/L			08/05/20 14:16	5
2-Methyl-2-propanol	**140**	**J**	250	60	ug/L			08/05/20 14:16	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*80 - 120*		*07/31/20 13:01*	*50*
1,2-Dichloroethane-d4 (Surr)	*82*		*80 - 120*		*08/05/20 14:16*	*5*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*07/31/20 13:01*	*50*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*08/05/20 14:16*	*5*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*07/31/20 13:01*	*50*
Dibromofluoromethane (Surr)	*105*		*80 - 120*		*08/05/20 14:16*	*5*
Toluene-d8 (Surr)	*91*		*80 - 120*		*07/31/20 13:01*	*50*
Toluene-d8 (Surr)	*91*		*80 - 120*		*08/05/20 14:16*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.51	0.10	ug/L		08/03/20 10:37	08/11/20 00:46	1
Benzo[a]anthracene	ND		0.51	0.10	ug/L		08/03/20 10:37	08/11/20 00:46	1
Benzo[a]pyrene	ND		0.51	0.10	ug/L		08/03/20 10:37	08/11/20 00:46	1
Benzo[b]fluoranthene	ND		0.51	0.10	ug/L		08/03/20 10:37	08/11/20 00:46	1
Benzo[g,h,i]perylene	ND		0.51	0.10	ug/L		08/03/20 10:37	08/11/20 00:46	1
Chrysene	ND		0.51	0.10	ug/L		08/03/20 10:37	08/11/20 00:46	1
Fluorene	ND		0.51	0.10	ug/L		08/03/20 10:37	08/11/20 00:46	1
Phenanthrene	**0.12**	**J**	0.51	0.10	ug/L		08/03/20 10:37	08/11/20 00:46	1
Pyrene	ND		0.51	0.10	ug/L		08/03/20 10:37	08/11/20 00:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*66*		*44 - 102*	*08/03/20 10:37*	*08/11/20 00:46*	*1*
Nitrobenzene-d5 (Surr)	*75*		*38 - 113*	*08/03/20 10:37*	*08/11/20 00:46*	*1*
p-Terphenyl-d14 (Surr)	*65*		*34 - 128*	*08/03/20 10:37*	*08/11/20 00:46*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**280**		5.1	1.0	ug/L		08/03/20 10:37	08/06/20 09:08	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*61*		*44 - 102*	*08/03/20 10:37*	*08/06/20 09:08*	*10*
Nitrobenzene-d5 (Surr)	*66*		*38 - 113*	*08/03/20 10:37*	*08/06/20 09:08*	*10*
p-Terphenyl-d14 (Surr)	*57*		*34 - 128*	*08/03/20 10:37*	*08/06/20 09:08*	*10*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**2.0**	**J**	5.0	1.0	ug/L		07/29/20 09:36	07/29/20 12:26	1

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8907-1

Client Sample ID: CD-3-W-25.0-20200728

Date Collected: 07/28/20 10:10
Date Received: 07/28/20 15:55

Lab Sample ID: 410-8907-1

Matrix: Water

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethene (1C)	ND		5.0	1.0	ug/L		07/29/20 09:36	07/29/20 12:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*102*		*28 - 140*	*07/29/20 09:36*	*07/29/20 12:26*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**7100**		250	150	ug/L		07/30/20 08:40	07/30/20 13:11	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*90*		*28 - 140*	*07/30/20 08:40*	*07/30/20 13:11*	*50*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND		0.50	0.25	mg/L			07/29/20 09:14	5

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**65**		0.32	0.039	mg/L			08/03/20 05:55	1
Sulfate	**44**		0.48	0.16	mg/L			08/03/20 05:55	1

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**27**		0.20	0.096	mg/L		07/29/20 01:47	07/30/20 22:18	1
Iron	**10**		0.20	0.040	mg/L		07/29/20 01:47	07/30/20 22:18	1
Magnesium	**12**		0.10	0.040	mg/L		07/29/20 01:47	07/30/20 22:18	1
Potassium	**4.8**		0.50	0.20	mg/L		07/29/20 01:47	08/06/20 18:51	1
Sodium	**49**		1.0	0.24	mg/L		07/29/20 01:47	07/30/20 22:18	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		07/29/20 15:44	08/14/20 17:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**100**		8.0	8.0	mg/L			07/29/20 20:19	1
Ammonia-N	ND		1.1	0.36	mg/L		08/03/20 08:44	08/03/20 10:22	1
Sulfide	ND		0.30	0.10	mg/L			07/31/20 10:42	1

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8907-1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-8907-1	CD-3-W-25.0-20200728	86	97	104	91
410-8907-1	CD-3-W-25.0-20200728	82	101	105	91
LCS 410-28329/6	Lab Control Sample	91	98	105	91
LCS 410-28329/8	Lab Control Sample	86	98	104	92
LCS 410-29839/7	Lab Control Sample	87	99	106	90
LCSD 410-28329/7	Lab Control Sample Dup	91	97	105	91
LCSD 410-28329/9	Lab Control Sample Dup	86	99	106	92
MB 410-28329/5	Method Blank	88	96	106	89
MB 410-29839/9	Method Blank	90	99	106	90

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(44-102)	(38-113)	(34-128)
410-8907-1 - DL	CD-3-W-25.0-20200728	61	66	57
410-8907-1	CD-3-W-25.0-20200728	66	75	65
LCS 410-28892/2-A	Lab Control Sample	72	81	78
MB 410-28892/1-A	Method Blank	68	78	89

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
		Propene1
Lab Sample ID	Client Sample ID	(28-140)
410-8907-1	CD-3-W-25.0-20200728	102
410-8907-1 - DL	CD-3-W-25.0-20200728	90
LCS 410-27524/2-A	Lab Control Sample	95
LCS 410-27967/2-A	Lab Control Sample	96
LCSD 410-27967/3-A	Lab Control Sample Dup	95
MB 410-27524/1-A	Method Blank	99
MB 410-27967/1-A	Method Blank	100

Surrogate Legend

Propene = Propene

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-28329/5
Matrix: Water
Analysis Batch: 28329

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			07/31/20 09:36	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			07/31/20 09:36	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			07/31/20 09:36	1
Benzene	ND		1.0	0.20	ug/L			07/31/20 09:36	1
C4-C12-TPH-GRO	ND		50	29	ug/L			07/31/20 09:36	1
Ethylbenzene	ND		1.0	0.40	ug/L			07/31/20 09:36	1
Isopropylbenzene	ND		5.0	0.20	ug/L			07/31/20 09:36	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			07/31/20 09:36	1
Toluene	ND		1.0	0.20	ug/L			07/31/20 09:36	1
Xylenes, Total	ND		6.0	1.4	ug/L			07/31/20 09:36	1
2-Methyl-2-propanol	ND		50	12	ug/L			07/31/20 09:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*		*07/31/20 09:36*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*07/31/20 09:36*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 120*		*07/31/20 09:36*	*1*
Toluene-d8 (Surr)	*89*		*80 - 120*		*07/31/20 09:36*	*1*

Lab Sample ID: LCS 410-28329/6
Matrix: Water
Analysis Batch: 28329

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	20.0	15.6		ug/L		78	75 - 120
1,2-Dichloroethane	20.0	18.4		ug/L		92	73 - 124
1,3,5-Trimethylbenzene	20.0	16.0		ug/L		80	75 - 120
Benzene	20.0	20.2		ug/L		101	80 - 120
Ethylbenzene	20.0	17.1		ug/L		86	80 - 120
Isopropylbenzene	20.0	17.2		ug/L		86	80 - 120
Methyl tertiary butyl ether	20.0	17.9		ug/L		90	69 - 122
Naphthalene	20.0	12.6		ug/L		63	53 - 124
Toluene	20.0	17.4		ug/L		87	80 - 120
Xylenes, Total	60.0	53.0		ug/L		88	80 - 120
2-Methyl-2-propanol	200	156		ug/L		78	60 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*91*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*105*		*80 - 120*
Toluene-d8 (Surr)	*91*		*80 - 120*

Lab Sample ID: LCS 410-28329/8
Matrix: Water
Analysis Batch: 28329

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C4-C12-TPH-GRO	1000	999		ug/L		100	67 - 120

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-28329/8
Matrix: Water
Analysis Batch: 28329

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*86*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*104*		*80 - 120*
Toluene-d8 (Surr)	*92*		*80 - 120*

Lab Sample ID: LCSD 410-28329/7
Matrix: Water
Analysis Batch: 28329

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene			20.0	18.0		ug/L		90	75 - 120	14	30
1,2-Dichloroethane			20.0	19.7		ug/L		99	73 - 124	7	30
1,3,5-Trimethylbenzene			20.0	17.5		ug/L		88	75 - 120	9	30
Benzene			20.0	21.9		ug/L		109	80 - 120	8	30
Ethylbenzene			20.0	18.9		ug/L		94	80 - 120	10	30
Isopropylbenzene			20.0	18.7		ug/L		93	80 - 120	8	30
Methyl tertiary butyl ether			20.0	19.3		ug/L		97	69 - 122	8	30
Naphthalene			20.0	15.4		ug/L		77	53 - 124	20	30
Toluene			20.0	19.0		ug/L		95	80 - 120	9	30
Xylenes, Total			60.0	56.8		ug/L		95	80 - 120	7	30
2-Methyl-2-propanol			200	176		ug/L		88	60 - 130	12	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*91*		*80 - 120*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Dibromofluoromethane (Surr)	*105*		*80 - 120*
Toluene-d8 (Surr)	*91*		*80 - 120*

Lab Sample ID: LCSD 410-28329/9
Matrix: Water
Analysis Batch: 28329

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C4-C12-TPH-GRO			1000	986		ug/L		99	67 - 120	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*86*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*106*		*80 - 120*
Toluene-d8 (Surr)	*92*		*80 - 120*

Lab Sample ID: MB 410-29839/9
Matrix: Water
Analysis Batch: 29839

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			08/05/20 12:58	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			08/05/20 12:58	1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-29839/9
Matrix: Water
Analysis Batch: 29839

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			08/05/20 12:58	1
Benzene	ND		1.0	0.20	ug/L			08/05/20 12:58	1
C4-C12-TPH-GRO	ND		50	29	ug/L			08/05/20 12:58	1
Ethylbenzene	ND		1.0	0.40	ug/L			08/05/20 12:58	1
Isopropylbenzene	ND		5.0	0.20	ug/L			08/05/20 12:58	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			08/05/20 12:58	1
Toluene	ND		1.0	0.20	ug/L			08/05/20 12:58	1
Xylenes, Total	ND		6.0	1.4	ug/L			08/05/20 12:58	1
2-Methyl-2-propanol	ND		50	12	ug/L			08/05/20 12:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*		*08/05/20 12:58*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*08/05/20 12:58*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 120*		*08/05/20 12:58*	*1*
Toluene-d8 (Surr)	*90*		*80 - 120*		*08/05/20 12:58*	*1*

Lab Sample ID: LCS 410-29839/7
Matrix: Water
Analysis Batch: 29839

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C4-C12-TPH-GRO			1000	1000		ug/L		100	67 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*87*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*106*		*80 - 120*
Toluene-d8 (Surr)	*90*		*80 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-28892/1-A
Matrix: Water
Analysis Batch: 29177

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 28892

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		08/03/20 10:37	08/03/20 23:04	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		08/03/20 10:37	08/03/20 23:04	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		08/03/20 10:37	08/03/20 23:04	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		08/03/20 10:37	08/03/20 23:04	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		08/03/20 10:37	08/03/20 23:04	1
Chrysene	ND		0.50	0.10	ug/L		08/03/20 10:37	08/03/20 23:04	1
Fluorene	ND		0.50	0.10	ug/L		08/03/20 10:37	08/03/20 23:04	1
Naphthalene	ND		0.50	0.10	ug/L		08/03/20 10:37	08/03/20 23:04	1
Phenanthrene	ND		0.50	0.10	ug/L		08/03/20 10:37	08/03/20 23:04	1
Pyrene	ND		0.50	0.10	ug/L		08/03/20 10:37	08/03/20 23:04	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-28892/1-A
Matrix: Water
Analysis Batch: 29177

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 28892

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	68		44 - 102	08/03/20 10:37	08/03/20 23:04	1
Nitrobenzene-d5 (Surr)	78		38 - 113	08/03/20 10:37	08/03/20 23:04	1
p-Terphenyl-d14 (Surr)	89		34 - 128	08/03/20 10:37	08/03/20 23:04	1

Lab Sample ID: LCS 410-28892/2-A
Matrix: Water
Analysis Batch: 29177

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 28892

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.1	50.2		ug/L		100	67 - 116
Benzo[a]anthracene	50.0	46.2		ug/L		92	68 - 123
Benzo[a]pyrene	50.2	45.6		ug/L		91	71 - 117
Benzo[b]fluoranthene	50.1	47.0		ug/L		94	69 - 121
Benzo[g,h,i]perylene	50.1	44.7		ug/L		89	60 - 119
Chrysene	50.0	50.2		ug/L		100	65 - 121
Fluorene	50.1	43.9		ug/L		88	56 - 115
Naphthalene	50.4	37.4		ug/L		74	51 - 102
Phenanthrene	50.2	48.2		ug/L		96	65 - 113
Pyrene	50.4	47.5		ug/L		94	65 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	72		44 - 102
Nitrobenzene-d5 (Surr)	81		38 - 113
p-Terphenyl-d14 (Surr)	78		34 - 128

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-27524/1-A
Matrix: Water
Analysis Batch: 27544

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27524

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		07/29/20 09:36	07/29/20 10:54	1
Ethene (1C)	ND		5.0	1.0	ug/L		07/29/20 09:36	07/29/20 10:54	1
Methane (1C)	ND		5.0	3.0	ug/L		07/29/20 09:36	07/29/20 10:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Propene (1C)	99		28 - 140	07/29/20 09:36	07/29/20 10:54	1

Lab Sample ID: LCS 410-27524/2-A
Matrix: Water
Analysis Batch: 27544

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27524

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethane (1C)	59.4	56.8		ug/L		96	85 - 115
Ethene (1C)	60.4	59.1		ug/L		98	83 - 115
Methane (1C)	59.4	60.8		ug/L		102	85 - 115

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCS 410-27524/2-A
Matrix: Water
Analysis Batch: 27544

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27524

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*95*		*28 - 140*

Lab Sample ID: MB 410-27967/1-A
Matrix: Water
Analysis Batch: 27981

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27967

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		07/30/20 08:40	07/30/20 09:57	1
Ethene (1C)	ND		5.0	1.0	ug/L		07/30/20 08:40	07/30/20 09:57	1
Methane (1C)	ND		5.0	3.0	ug/L		07/30/20 08:40	07/30/20 09:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*100*		*28 - 140*	*07/30/20 08:40*	*07/30/20 09:57*	*1*

Lab Sample ID: LCS 410-27967/2-A
Matrix: Water
Analysis Batch: 27981

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27967

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	58.5		ug/L		99	85 - 115		
Ethene (1C)			60.4	60.4		ug/L		100	83 - 115		
Methane (1C)			59.4	61.9		ug/L		104	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*96*		*28 - 140*

Lab Sample ID: LCSD 410-27967/3-A
Matrix: Water
Analysis Batch: 27981

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 27967

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	57.9		ug/L		98	85 - 115	1	20
Ethene (1C)			60.4	58.8		ug/L		97	83 - 115	3	20
Methane (1C)			59.4	61.6		ug/L		104	85 - 115	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*95*		*28 - 140*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Lab Sample ID: MB 410-27406/4
Matrix: Water
Analysis Batch: 27406

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND		0.10	0.050	mg/L			07/29/20 06:58	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy (Continued)

Lab Sample ID: LCS 410-27406/3
Matrix: Water
Analysis Batch: 27406

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Nitrate	0.750	0.716		mg/L		96	90 - 110

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 460-713648/3
Matrix: Water
Analysis Batch: 713648

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.32	0.039	mg/L			08/03/20 00:25	1
Sulfate	ND		0.48	0.16	mg/L			08/03/20 00:25	1

Lab Sample ID: LCS 460-713648/5
Matrix: Water
Analysis Batch: 713648

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.20	2.96		mg/L		92	90 - 110
Sulfate	4.80	4.73		mg/L		99	90 - 110

Lab Sample ID: LCSD 460-713648/6
Matrix: Water
Analysis Batch: 713648

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3.20	2.96		mg/L		93	90 - 110	0	15
Sulfate	4.80	4.72		mg/L		98	90 - 110	0	15

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-27363/1-A
Matrix: Water
Analysis Batch: 28322

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 27363

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.20	0.096	mg/L		07/29/20 01:47	07/30/20 21:50	1
Iron	ND		0.20	0.040	mg/L		07/29/20 01:47	07/30/20 21:50	1
Magnesium	ND		0.10	0.040	mg/L		07/29/20 01:47	07/30/20 21:50	1
Sodium	ND		1.0	0.24	mg/L		07/29/20 01:47	07/30/20 21:50	1

Lab Sample ID: MB 410-27363/1-A
Matrix: Water
Analysis Batch: 30584

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 27363

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	ND		0.50	0.20	mg/L		07/29/20 01:47	08/06/20 18:25	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 410-27363/2-A
Matrix: Water
Analysis Batch: 28322

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 27363

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	0.400	0.406		mg/L		101	80 - 120
Iron	0.402	0.388		mg/L		96	80 - 120
Magnesium	0.200	0.205		mg/L		103	80 - 120
Sodium	2.00	2.08		mg/L		104	80 - 120

Lab Sample ID: LCS 410-27363/2-A
Matrix: Water
Analysis Batch: 30584

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 27363

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	5.60	5.83		mg/L		104	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 410-27681/1-A
Matrix: Water
Analysis Batch: 33703

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27681

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		07/29/20 15:44	08/14/20 16:50	1

Lab Sample ID: LCS 410-27681/2-A
Matrix: Water
Analysis Batch: 33703

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27681

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	4.92	5.27		ug/L		107	90 - 115

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 410-28150/20
Matrix: Water
Analysis Batch: 28150

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8.0	8.0	mg/L			07/29/20 19:30	1

Lab Sample ID: LCS 410-28150/21
Matrix: Water
Analysis Batch: 28150

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	189	166		mg/L		88	82 - 106

Method: 4500 NH3 C-2011 - Ammonia

Lab Sample ID: MB 410-28916/1-A
Matrix: Water
Analysis Batch: 28971

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 28916

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia-N	ND		0.75	0.25	mg/L		08/03/20 08:44	08/03/20 10:22	1

Lab Sample ID: LCS 410-28916/2-A
Matrix: Water
Analysis Batch: 28971

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 28916

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia-N	500	491		mg/L		98	93 - 100

Method: 4500 S2 D-2011 - Sulfide, Total

Lab Sample ID: MB 410-28480/1
Matrix: Water
Analysis Batch: 28480

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.30	0.10	mg/L			07/31/20 10:42	1

Lab Sample ID: LCS 410-28480/13
Matrix: Water
Analysis Batch: 28480

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	1.00	1.09		mg/L		109	90 - 110

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8907-1

GC/MS VOA

Analysis Batch: 28329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8907-1	CD-3-W-25.0-20200728	Total/NA	Water	8260C/UST	
MB 410-28329/5	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-28329/6	Lab Control Sample	Total/NA	Water	8260C/UST	
LCS 410-28329/8	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-28329/7	Lab Control Sample Dup	Total/NA	Water	8260C/UST	
LCSD 410-28329/9	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

Analysis Batch: 29839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8907-1	CD-3-W-25.0-20200728	Total/NA	Water	8260C/UST	
MB 410-29839/9	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-29839/7	Lab Control Sample	Total/NA	Water	8260C/UST	

GC/MS Semi VOA

Prep Batch: 28892

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8907-1 - DL	CD-3-W-25.0-20200728	Total/NA	Water	3510C	
410-8907-1	CD-3-W-25.0-20200728	Total/NA	Water	3510C	
MB 410-28892/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-28892/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 29177

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-28892/1-A	Method Blank	Total/NA	Water	8270D	28892
LCS 410-28892/2-A	Lab Control Sample	Total/NA	Water	8270D	28892

Analysis Batch: 30126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8907-1 - DL	CD-3-W-25.0-20200728	Total/NA	Water	8270D	28892

Analysis Batch: 31489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8907-1	CD-3-W-25.0-20200728	Total/NA	Water	8270D	28892

GC VOA

Prep Batch: 27524

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8907-1	CD-3-W-25.0-20200728	Total/NA	Water	RSK-175	
MB 410-27524/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-27524/2-A	Lab Control Sample	Total/NA	Water	RSK-175	

Analysis Batch: 27544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8907-1	CD-3-W-25.0-20200728	Total/NA	Water	RSK-175	27524
MB 410-27524/1-A	Method Blank	Total/NA	Water	RSK-175	27524
LCS 410-27524/2-A	Lab Control Sample	Total/NA	Water	RSK-175	27524

Prep Batch: 27967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8907-1 - DL	CD-3-W-25.0-20200728	Total/NA	Water	RSK-175	

GC VOA (Continued)

Prep Batch: 27967 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-27967/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-27967/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-27967/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 27981

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8907-1 - DL	CD-3-W-25.0-20200728	Total/NA	Water	RSK-175	27967
MB 410-27967/1-A	Method Blank	Total/NA	Water	RSK-175	27967
LCS 410-27967/2-A	Lab Control Sample	Total/NA	Water	RSK-175	27967
LCSD 410-27967/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	27967

HPLC/IC

Analysis Batch: 27406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8907-1	CD-3-W-25.0-20200728	Total/NA	Water	EPA 300.0 R2.1	
MB 410-27406/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-27406/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 713648

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8907-1	CD-3-W-25.0-20200728	Total/NA	Water	EPA 300.0 R2.1	
MB 460-713648/3	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 460-713648/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCSD 460-713648/6	Lab Control Sample Dup	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 27363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8907-1	CD-3-W-25.0-20200728	Total Recoverable	Water	3005A	
MB 410-27363/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-27363/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Filtration Batch: 27675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8907-1	CD-3-W-25.0-20200728	Dissolved	Water	Filtration	

Prep Batch: 27681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8907-1	CD-3-W-25.0-20200728	Dissolved	Water	Non-Digest Prep	27675
MB 410-27681/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-27681/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	

Analysis Batch: 28322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8907-1	CD-3-W-25.0-20200728	Total Recoverable	Water	6010C	27363
MB 410-27363/1-A	Method Blank	Total Recoverable	Water	6010C	27363
LCS 410-27363/2-A	Lab Control Sample	Total Recoverable	Water	6010C	27363

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8907-1

Metals

Analysis Batch: 30584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8907-1	CD-3-W-25.0-20200728	Total Recoverable	Water	6010C	27363
MB 410-27363/1-A	Method Blank	Total Recoverable	Water	6010C	27363
LCS 410-27363/2-A	Lab Control Sample	Total Recoverable	Water	6010C	27363

Analysis Batch: 33703

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8907-1	CD-3-W-25.0-20200728	Dissolved	Water	6020A	27681
MB 410-27681/1-A	Method Blank	Total/NA	Water	6020A	27681
LCS 410-27681/2-A	Lab Control Sample	Total/NA	Water	6020A	27681

General Chemistry

Analysis Batch: 28150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8907-1	CD-3-W-25.0-20200728	Total/NA	Water	2320B-2011	
MB 410-28150/20	Method Blank	Total/NA	Water	2320B-2011	
LCS 410-28150/21	Lab Control Sample	Total/NA	Water	2320B-2011	

Analysis Batch: 28480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8907-1	CD-3-W-25.0-20200728	Total/NA	Water	4500 S2 D-2011	
MB 410-28480/1	Method Blank	Total/NA	Water	4500 S2 D-2011	
LCS 410-28480/13	Lab Control Sample	Total/NA	Water	4500 S2 D-2011	

Prep Batch: 28916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8907-1	CD-3-W-25.0-20200728	Total/NA	Water	4500 NH3 B-2011	
MB 410-28916/1-A	Method Blank	Total/NA	Water	4500 NH3 B-2011	
LCS 410-28916/2-A	Lab Control Sample	Total/NA	Water	4500 NH3 B-2011	

Analysis Batch: 28971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-8907-1	CD-3-W-25.0-20200728	Total/NA	Water	4500 NH3 C-2011	28916
MB 410-28916/1-A	Method Blank	Total/NA	Water	4500 NH3 C-2011	28916
LCS 410-28916/2-A	Lab Control Sample	Total/NA	Water	4500 NH3 C-2011	28916

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8907-1

Client Sample ID: CD-3-W-25.0-20200728

Date Collected: 07/28/20 10:10
Date Received: 07/28/20 15:55

Lab Sample ID: 410-8907-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		50	28329	07/31/20 13:01	UKAD	ELLE
Total/NA	Analysis	8260C/UST		5	29839	08/05/20 14:16	UKAD	ELLE
Total/NA	Prep	3510C	DL		28892	08/03/20 10:37	QTH7	ELLE
Total/NA	Analysis	8270D	DL	10	30126	08/06/20 09:08	ULM3	ELLE
Total/NA	Prep	3510C			28892	08/03/20 10:37	QTH7	ELLE
Total/NA	Analysis	8270D		1	31489	08/11/20 00:46	W6XI	ELLE
Total/NA	Prep	RSK-175	DL		27967	07/30/20 08:40	IYN5	ELLE
Total/NA	Analysis	RSK-175	DL	50	27981	07/30/20 13:11	IYN5	ELLE
Total/NA	Prep	RSK-175			27524	07/29/20 09:36	IYN5	ELLE
Total/NA	Analysis	RSK-175		1	27544	07/29/20 12:26	IYN5	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	27406	07/29/20 09:14	GJ35	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		1	713648	08/03/20 05:55	VMI	TAL EDI
Total Recoverable	Prep	3005A			27363	07/29/20 01:47	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	28322	07/30/20 22:18	LR7D	ELLE
Total Recoverable	Prep	3005A			27363	07/29/20 01:47	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	30584	08/06/20 18:51	UCIG	ELLE
Dissolved	Filtration	Filtration			27675	07/29/20 15:18	UJLA	ELLE
Dissolved	Prep	Non-Digest Prep			27681	07/29/20 15:44	UJLA	ELLE
Dissolved	Analysis	6020A		1	33703	08/14/20 17:16	V5SW	ELLE
Total/NA	Analysis	2320B-2011		1	28150	07/29/20 20:19	JB	ELLE
Total/NA	Prep	4500 NH3 B-2011			28916	08/03/20 08:44	UYB0	ELLE
Total/NA	Analysis	4500 NH3 C-2011		1	28971	08/03/20 10:22	UYB0	ELLE
Total/NA	Analysis	4500 S2 D-2011		1	28480	07/31/20 10:42	P8DZ	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: Stantec Consulting Corp. Job ID: 410-8907-1
Project/Site: PHL Penrose Drilling Sampling

Laboratory: Eurofins Lancaster Laboratories Env, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-21

Laboratory: Eurofins TestAmerica, Edison

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	68-00522	09-30-20

Method Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8907-1

Method	Method Description	Protocol	Laboratory
8260C/UST	Volatile Organic Compounds (GC/MS)	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
RSK-175	Dissolved Gases (GC)	RSK	ELLE
EPA 300.0 R2.1	Anions, Ion Chromatgraphy	EPA	ELLE
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	TAL EDI
6010C	Metals (ICP)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
2320B-2011	Alkalinity, Total	SM	ELLE
4500 NH3 C-2011	Ammonia	SM	ELLE
4500 S2 D-2011	Sulfide, Total	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
4500 NH3 B-2011	Ammonia, Distillation	SM	ELLE
5030C	Purge and Trap	SW846	ELLE
Filtration	Sample Filtration	None	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-8907-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-8907-1	CD-3-W-25.0-20200728	Water	07/28/20 10:10	07/28/20 15:55	

Environmental Analysis [illegible] Custody

eurofins | Lancaster Laboratories Environmental

410-8907 Chain of Custody

Acct. # _____ [illegible]ental use only

Sample # _____

COC #608583

Client Information

Client: Evergreen c/o Stantec	Acct. #: 16657
Project Name #: PHL Penrose Drilling Sampling	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 213402602
Sampler: Dave Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix

☐ Tissue ☐ Sediment ☐ Soil ☒ Ground ☐ Surface ☐ Potable ☐ NPDES Water ☐ Other:

Analysis Requested

Preservation and Filtration Codes

For Lab Use Only
FSC: _____
SCR#: _____

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Water	Other	Total # of Containers	Custom TPH w/ Ranges	TPH-GRO 8260/Moisture	Metal 6010/Lead (dissolved 6020 total 6010B)	Sulfide	Chloride, Nitrate Nitrogen Sulfate	Volatile Headspace Hydrocarbons	Total Alkalinity to 4.5	Ammonia Nitrogen	*Short List VOCs 8260 including TPH 8260 + EDB 8011	*Short List SVOCs 8270	Remarks
CD-3-W-250-20200728	7/28/2020	1010	X			X		17	X	X	X	X	X	X	X	X	X	X	

*refer to Evergreen Petroleum Short List for List of analytes

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: Andrew.Klingbeil@Stantec.com

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
[signature]	7/28/20	12:10	Pierre	7/28/2	12:10
Pierre	7/28/2	1548			
			[signature]	7-28-20	1555

EDD Required? Yes No
If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:
UPS _____ FedEx _____ Other _____

Temperature upon receipt 4.3 °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT https://www.eurofinsus.com/coc
The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

KAM 7044 0919

15

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Carter, Amek A	Carrier Tracking No(s):	COC No: 410-116840.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: amekcarter@eurofinsus.com	State of Origin: Pennsylvania	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Pennsylvania		Job #: 410-8907-1
Address: 777 New Durham Road, ,	Due Date Requested: 8/7/2020			
City: Edison	TAT Requested (days):			
State, Zip: NJ, 08817				
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	PO #:			
Email:	WO #:			
Project Name: PHL Penrose Drilling Sampling	Project #: 41002220			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D/ (MOD) Local Method	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
CD-3-W-25D-20200728 (410-8907-1)	7/28/20	10:10 Eastern		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Lancaster Laboratories Env places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Lancaster Laboratories Env laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Lancaster Laboratories Env attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Lancaster Laboratories Env.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	7-29-2020 1000	ELLE	[signature]	7-29-20 1000	ELLE
2	[signature]	7-29-20 1825	ELLE	[signature]	7/29/20 1825	TAL
3						

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.4°C TR#1

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Stantec Consulting Corp. Job Number: 410-8907-1

Login Number: 8907 **List Source: Eurofins Lancaster Laboratories Env**
List Number: 1
Creator: Sanchez, Melvin E

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

Login Sample Receipt Checklist

Client: Stantec Consulting Corp. Job Number: 410-8907-1

Login Number: 8907
List Number: 2
Creator: Armbruster, Chris

List Source: Eurofins TestAmerica, Edison
List Creation: 07/31/20 12:47 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.4°C IR11
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-9021-1
Client Project/Site: PHL Penrose Drilling Sampling

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Andrew Klingbeil

Authorized for release by:
8/28/2020 10:21:10 AM

Amek Carter, Project Manager
(717)556-7252
amekcarter@eurofinsus.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments. QC data that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result. Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
8/28/2020 10:21:10 AM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 7
Client Sample Results 8
Surrogate Summary 10
QC Sample Results 12
QC Association Summary 21
Lab Chronicle 24
Certification Summary 25
Method Summary 26
Sample Summary 27
Chain of Custody 28
Receipt Checklists 30

Definitions/Glossary

Client: Stantec Consulting Corp. Job ID: 410-9021-1
Project/Site: PHL Penrose Drilling Sampling

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*3	ISTD response or retention time outside acceptable limits.

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
FL	MS and/or MSD recovery below control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-9021-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-9021-1

Comments
No additional comments.

Receipt
The sample was received on 7/29/2020 4:07 PM; the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.0º C.

Receipt Exceptions
A trip blank was not submitted for analysis with the sample shipment and was not listed on the Chain of Custody (COC).

GC/MS VOA
Method 8260C/UST: The following sample CD-3-W-46.0-20200729 (410-9021-1) had matrix interference with an internal standard t-Butyl alcohol-d10, therefore the GRO result is biased low.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: Due to laboratory error, the method blank, laboratory control sample (LCS), laboratory control sample duplicate (LCSD) and sample were internalized incorrectly. The concentrations were adjusted accordingly and the data reported. The associated sample is CD-3-W-46.0-20200729 (410-9021-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HPLC/IC
Methods 300.0, 9056A: The following samples were diluted to bring the concentration of target analytes within the calibration range: CD-3-W-46.0-20200729 (410-9021-1). Elevated reporting limits (RLs) are provided.

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method Filtration: The following sample was not filtered within 15 minutes of sample collection as required by the method: CD-3-W-46.0-20200729 (410-9021-1). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
Method SM 4500 S2 D: The reference method requires samples to be preserved to a pH of >9. The following sample(s) were received with insufficient preservation at a pH of 7: CD-3-W-46.0-20200729 (410-9021-1). The sample(s) were preserved to the appropriate pH in the laboratory.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

Job ID: 410-9021-1 (Continued)

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-9021-1

Client Sample ID: CD-3-W-46.0-20200729

Lab Sample ID: 410-9021-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	91		25	5.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	38		25	1.5	ug/L	5		8260C/UST	Total/NA
Benzene	390		5.0	1.0	ug/L	5		8260C/UST	Total/NA
C4-C12-TPH-GRO	3900		250	150	ug/L	5		8260C/UST	Total/NA
Ethylbenzene	5.7		5.0	2.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	4.5	J	25	1.0	ug/L	5		8260C/UST	Total/NA
Methyl tertiary butyl ether	14		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Toluene	51		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	240		30	7.0	ug/L	5		8260C/UST	Total/NA
Naphthalene	5.1		0.51	0.10	ug/L	1		8270D	Total/NA
Ethane (1C)	2.9	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	3900		100	60	ug/L	20		RSK-175	Total/NA
>C12-C22 (1C)	1.2		0.095	0.035	mg/L	1		8015C	Total/NA
>C22-C44 (1C)	0.67		0.095	0.035	mg/L	1		8015C	Total/NA
Total Reported TPH	1.9		0.20	0.074	mg/L	1		Total TPH	Total/NA
Chloride	600		3.2	0.39	mg/L	10		EPA 300.0 R2.1	Total/NA
Sulfate	13		0.48	0.16	mg/L	1		EPA 300.0 R2.1	Total/NA
Calcium	98		0.20	0.096	mg/L	1		6010C	Total Recoverable
Iron	19		0.20	0.040	mg/L	1		6010C	Total Recoverable
Magnesium	48		0.10	0.040	mg/L	1		6010C	Total Recoverable
Potassium	9.2		0.50	0.20	mg/L	1		6010C	Total Recoverable
Sodium	330		1.0	0.24	mg/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	300	FL	8.0	8.0	mg/L	1		2320B-2011	Total/NA
Ammonia-N	1.3	J	1.5	0.50	mg/L	1		4500 NH3 C-2011	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-9021-1

Client Sample ID: CD-3-W-46.0-20200729
Date Collected: 07/29/20 10:45
Date Received: 07/29/20 16:07

Lab Sample ID: 410-9021-1
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**91**		25	5.0	ug/L			07/31/20 13:25	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			07/31/20 13:25	5
1,3,5-Trimethylbenzene	**38**		25	1.5	ug/L			07/31/20 13:25	5
Benzene	**390**		5.0	1.0	ug/L			07/31/20 13:25	5
C4-C12-TPH-GRO	**3900**		250	150	ug/L			07/31/20 13:25	5
Ethylbenzene	**5.7**		5.0	2.0	ug/L			07/31/20 13:25	5
Isopropylbenzene	**4.5**	**J**	25	1.0	ug/L			07/31/20 13:25	5
Methyl tertiary butyl ether	**14**		5.0	1.0	ug/L			07/31/20 13:25	5
Toluene	**51**		5.0	1.0	ug/L			07/31/20 13:25	5
Xylenes, Total	**240**		30	7.0	ug/L			07/31/20 13:25	5
2-Methyl-2-propanol	ND		250	60	ug/L			07/31/20 13:25	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*		*07/31/20 13:25*	*5*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*07/31/20 13:25*	*5*
Dibromofluoromethane (Surr)	*105*		*80 - 120*		*07/31/20 13:25*	*5*
Toluene-d8 (Surr)	*93*		*80 - 120*		*07/31/20 13:25*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND	*3	0.51	0.10	ug/L		08/04/20 08:40	08/05/20 13:54	1
Benzo[a]anthracene	ND		0.51	0.10	ug/L		08/04/20 08:40	08/05/20 13:54	1
Benzo[a]pyrene	ND	*3	0.51	0.10	ug/L		08/04/20 08:40	08/05/20 13:54	1
Benzo[b]fluoranthene	ND	*3	0.51	0.10	ug/L		08/04/20 08:40	08/05/20 13:54	1
Benzo[g,h,i]perylene	ND	*3	0.51	0.10	ug/L		08/04/20 08:40	08/05/20 13:54	1
Chrysene	ND		0.51	0.10	ug/L		08/04/20 08:40	08/05/20 13:54	1
Fluorene	ND	*3	0.51	0.10	ug/L		08/04/20 08:40	08/05/20 13:54	1
Naphthalene	**5.1**		0.51	0.10	ug/L		08/04/20 08:40	08/05/20 13:54	1
Phenanthrene	ND	*3	0.51	0.10	ug/L		08/04/20 08:40	08/05/20 13:54	1
Pyrene	ND		0.51	0.10	ug/L		08/04/20 08:40	08/05/20 13:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*73*	*3	*44 - 102*	*08/04/20 08:40*	*08/05/20 13:54*	*1*
Nitrobenzene-d5 (Surr)	*79*		*38 - 113*	*08/04/20 08:40*	*08/05/20 13:54*	*1*
p-Terphenyl-d14 (Surr)	*60*		*34 - 128*	*08/04/20 08:40*	*08/05/20 13:54*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**2.9**	**J**	5.0	1.0	ug/L		07/30/20 08:38	07/30/20 13:18	1
Ethene (1C)	ND		5.0	1.0	ug/L		07/30/20 08:38	07/30/20 13:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*73*		*28 - 140*	*07/30/20 08:38*	*07/30/20 13:18*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**3900**		100	60	ug/L		07/31/20 08:48	07/31/20 11:57	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*87*		*28 - 140*	*07/31/20 08:48*	*07/31/20 11:57*	*20*

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-9021-1

Client Sample ID: CD-3-W-46.0-20200729
Date Collected: 07/29/20 10:45
Date Received: 07/29/20 16:07

Lab Sample ID: 410-9021-1
Matrix: Water

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	1.2		0.095	0.035	mg/L		08/05/20 10:11	08/06/20 15:26	1
>C22-C44 (1C)	0.67		0.095	0.035	mg/L		08/05/20 10:11	08/06/20 15:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*63*		*21 - 116*	*08/05/20 10:11*	*08/06/20 15:26*	*1*
o- terphenyl (Surr) (1C)	*84*		*51 - 126*	*08/05/20 10:11*	*08/06/20 15:26*	*1*

Method: Total TPH - Total TPH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Reported TPH	1.9		0.20	0.074	mg/L			07/31/20 09:17	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND		0.50	0.25	mg/L			07/30/20 15:04	5

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	600		3.2	0.39	mg/L			08/10/20 15:27	10
Sulfate	13		0.48	0.16	mg/L			08/10/20 10:25	1

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	98		0.20	0.096	mg/L		07/30/20 02:55	08/06/20 09:52	1
Iron	19		0.20	0.040	mg/L		07/30/20 02:55	08/06/20 09:52	1
Magnesium	48		0.10	0.040	mg/L		07/30/20 02:55	08/06/20 09:52	1
Potassium	9.2		0.50	0.20	mg/L		07/30/20 02:55	08/06/20 09:52	1
Sodium	330		1.0	0.24	mg/L		07/30/20 02:55	08/06/20 09:52	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		08/06/20 14:26	08/12/20 17:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	300	FL	8.0	8.0	mg/L			07/30/20 22:30	1
Ammonia-N	1.3	J	1.5	0.50	mg/L		08/03/20 08:44	08/03/20 10:22	1
Sulfide	ND		0.30	0.10	mg/L			08/05/20 12:43	1

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-9021-1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-9021-1	CD-3-W-46.0-20200729	88	98	105	93
LCS 410-28329/6	Lab Control Sample	91	98	105	91
LCS 410-28329/8	Lab Control Sample	86	98	104	92
LCSD 410-28329/7	Lab Control Sample Dup	91	97	105	91
LCSD 410-28329/9	Lab Control Sample Dup	86	99	106	92
MB 410-28329/5	Method Blank	88	96	106	89

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(44-102)	(38-113)	(34-128)
410-9021-1	CD-3-W-46.0-20200729	73 *3	79	60
LCS 410-29293/2-A	Lab Control Sample	78 *3	89	84
LCSD 410-29293/3-A	Lab Control Sample Dup	77 *3	86	81
MB 410-29293/1-A	Method Blank	73 *3	91	87

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
		Propene1
Lab Sample ID	Client Sample ID	(28-140)
410-9021-1	CD-3-W-46.0-20200729	73
410-9021-1 - DL	CD-3-W-46.0-20200729	87
LCS 410-27966/2-A	Lab Control Sample	95
LCS 410-28419/2-A	Lab Control Sample	103
LCSD 410-27966/3-A	Lab Control Sample Dup	94
LCSD 410-28419/3-A	Lab Control Sample Dup	102
MB 410-27966/1-A	Method Blank	96
MB 410-28419/1-A	Method Blank	103

Surrogate Legend

Propene = Propene

Surrogate Summary

Client: Stantec Consulting Corp. Job ID: 410-9021-1
Project/Site: PHL Penrose Drilling Sampling

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
		CBNZ1	OTP1								
Lab Sample ID	Client Sample ID	(21-116)	(51-126)								
410-9021-1	CD-3-W-46.0-20200729	63	84								
LCS 410-29798/2-A	Lab Control Sample	72	94								
LCSD 410-29798/3-A	Lab Control Sample Dup	74	100								
MB 410-29798/1-A	Method Blank	63	79								

Surrogate Legend

CBNZ = Chlorobenzene (Surr)

OTP = o- terphenyl (Surr)

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-28329/5
Matrix: Water
Analysis Batch: 28329

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			07/31/20 09:36	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			07/31/20 09:36	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			07/31/20 09:36	1
Benzene	ND		1.0	0.20	ug/L			07/31/20 09:36	1
C4-C12-TPH-GRO	ND		50	29	ug/L			07/31/20 09:36	1
Ethylbenzene	ND		1.0	0.40	ug/L			07/31/20 09:36	1
Isopropylbenzene	ND		5.0	0.20	ug/L			07/31/20 09:36	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			07/31/20 09:36	1
Toluene	ND		1.0	0.20	ug/L			07/31/20 09:36	1
Xylenes, Total	ND		6.0	1.4	ug/L			07/31/20 09:36	1
2-Methyl-2-propanol	ND		50	12	ug/L			07/31/20 09:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*		*07/31/20 09:36*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*07/31/20 09:36*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 120*		*07/31/20 09:36*	*1*
Toluene-d8 (Surr)	*89*		*80 - 120*		*07/31/20 09:36*	*1*

Lab Sample ID: LCS 410-28329/6
Matrix: Water
Analysis Batch: 28329

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	20.0	15.6		ug/L		78	75 - 120
1,2-Dichloroethane	20.0	18.4		ug/L		92	73 - 124
1,3,5-Trimethylbenzene	20.0	16.0		ug/L		80	75 - 120
Benzene	20.0	20.2		ug/L		101	80 - 120
Ethylbenzene	20.0	17.1		ug/L		86	80 - 120
Isopropylbenzene	20.0	17.2		ug/L		86	80 - 120
Methyl tertiary butyl ether	20.0	17.9		ug/L		90	69 - 122
Naphthalene	20.0	12.6		ug/L		63	53 - 124
Toluene	20.0	17.4		ug/L		87	80 - 120
Xylenes, Total	60.0	53.0		ug/L		88	80 - 120
2-Methyl-2-propanol	200	156		ug/L		78	60 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*91*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*105*		*80 - 120*
Toluene-d8 (Surr)	*91*		*80 - 120*

Lab Sample ID: LCS 410-28329/8
Matrix: Water
Analysis Batch: 28329

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C4-C12-TPH-GRO	1000	999		ug/L		100	67 - 120

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-28329/8
Matrix: Water
Analysis Batch: 28329

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*86*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*104*		*80 - 120*
Toluene-d8 (Surr)	*92*		*80 - 120*

Lab Sample ID: LCSD 410-28329/7
Matrix: Water
Analysis Batch: 28329

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene			20.0	18.0		ug/L		90	75 - 120	14	30
1,2-Dichloroethane			20.0	19.7		ug/L		99	73 - 124	7	30
1,3,5-Trimethylbenzene			20.0	17.5		ug/L		88	75 - 120	9	30
Benzene			20.0	21.9		ug/L		109	80 - 120	8	30
Ethylbenzene			20.0	18.9		ug/L		94	80 - 120	10	30
Isopropylbenzene			20.0	18.7		ug/L		93	80 - 120	8	30
Methyl tertiary butyl ether			20.0	19.3		ug/L		97	69 - 122	8	30
Naphthalene			20.0	15.4		ug/L		77	53 - 124	20	30
Toluene			20.0	19.0		ug/L		95	80 - 120	9	30
Xylenes, Total			60.0	56.8		ug/L		95	80 - 120	7	30
2-Methyl-2-propanol			200	176		ug/L		88	60 - 130	12	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*91*		*80 - 120*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Dibromofluoromethane (Surr)	*105*		*80 - 120*
Toluene-d8 (Surr)	*91*		*80 - 120*

Lab Sample ID: LCSD 410-28329/9
Matrix: Water
Analysis Batch: 28329

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C4-C12-TPH-GRO			1000	986		ug/L		99	67 - 120	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*86*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*106*		*80 - 120*
Toluene-d8 (Surr)	*92*		*80 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-29293/1-A
Matrix: Water
Analysis Batch: 29712

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29293

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND	*3	0.50	0.10	ug/L		08/04/20 08:40	08/05/20 11:26	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		08/04/20 08:40	08/05/20 11:26	1
Benzo[a]pyrene	ND	*3	0.50	0.10	ug/L		08/04/20 08:40	08/05/20 11:26	1
Benzo[b]fluoranthene	ND	*3	0.50	0.10	ug/L		08/04/20 08:40	08/05/20 11:26	1
Benzo[g,h,i]perylene	ND	*3	0.50	0.10	ug/L		08/04/20 08:40	08/05/20 11:26	1
Chrysene	ND		0.50	0.10	ug/L		08/04/20 08:40	08/05/20 11:26	1
Fluorene	ND	*3	0.50	0.10	ug/L		08/04/20 08:40	08/05/20 11:26	1
Naphthalene	ND		0.50	0.10	ug/L		08/04/20 08:40	08/05/20 11:26	1
Phenanthrene	ND	*3	0.50	0.10	ug/L		08/04/20 08:40	08/05/20 11:26	1
Pyrene	ND		0.50	0.10	ug/L		08/04/20 08:40	08/05/20 11:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*73*	**3*	*44 - 102*	*08/04/20 08:40*	*08/05/20 11:26*	*1*
Nitrobenzene-d5 (Surr)	*91*		*38 - 113*	*08/04/20 08:40*	*08/05/20 11:26*	*1*
p-Terphenyl-d14 (Surr)	*87*		*34 - 128*	*08/04/20 08:40*	*08/05/20 11:26*	*1*

Lab Sample ID: LCS 410-29293/2-A
Matrix: Water
Analysis Batch: 29712

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29293

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.1	45.8	*3	ug/L		91	67 - 116
Benzo[a]anthracene	50.0	53.6		ug/L		107	68 - 123
Benzo[a]pyrene	50.2	48.5	*3	ug/L		97	71 - 117
Benzo[b]fluoranthene	50.1	48.1	*3	ug/L		96	69 - 121
Benzo[g,h,i]perylene	50.1	48.9	*3	ug/L		98	60 - 119
Chrysene	50.0	50.1		ug/L		100	65 - 121
Fluorene	50.1	41.9	*3	ug/L		84	56 - 115
Naphthalene	50.4	39.6		ug/L		79	51 - 102
Phenanthrene	50.2	47.0	*3	ug/L		94	65 - 113
Pyrene	50.4	46.2		ug/L		92	65 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*78*	**3*	*44 - 102*
Nitrobenzene-d5 (Surr)	*89*		*38 - 113*
p-Terphenyl-d14 (Surr)	*84*		*34 - 128*

Lab Sample ID: LCSD 410-29293/3-A
Matrix: Water
Analysis Batch: 29712

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 29293

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Anthracene	50.1	44.4	*3	ug/L		89	67 - 116	3	30
Benzo[a]anthracene	50.0	51.4		ug/L		103	68 - 123	4	30
Benzo[a]pyrene	50.2	47.4	*3	ug/L		94	71 - 117	2	30
Benzo[b]fluoranthene	50.1	48.2	*3	ug/L		96	69 - 121	0	30
Benzo[g,h,i]perylene	50.1	48.5	*3	ug/L		97	60 - 119	1	30
Chrysene	50.0	47.9		ug/L		96	65 - 121	4	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-29293/3-A
Matrix: Water
Analysis Batch: 29712

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 29293

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluorene			50.1	42.5	*3	ug/L		85	56 - 115	1	30
Naphthalene			50.4	39.4		ug/L		78	51 - 102	1	30
Phenanthrene			50.2	45.3	*3	ug/L		90	65 - 113	4	30
Pyrene			50.4	44.3		ug/L		88	65 - 115	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*77*	**3*	*44 - 102*
Nitrobenzene-d5 (Surr)	*86*		*38 - 113*
p-Terphenyl-d14 (Surr)	*81*		*34 - 128*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-27966/1-A
Matrix: Water
Analysis Batch: 27974

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27966

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		07/30/20 08:38	07/30/20 09:56	1
Ethene (1C)	ND		5.0	1.0	ug/L		07/30/20 08:38	07/30/20 09:56	1
Methane (1C)	ND		5.0	3.0	ug/L		07/30/20 08:38	07/30/20 09:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*96*		*28 - 140*	*07/30/20 08:38*	*07/30/20 09:56*	*1*

Lab Sample ID: LCS 410-27966/2-A
Matrix: Water
Analysis Batch: 27974

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27966

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethane (1C)			59.4	56.8		ug/L		96	85 - 115
Ethene (1C)			60.4	59.2		ug/L		98	83 - 115
Methane (1C)			59.4	61.9		ug/L		104	85 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*95*		*28 - 140*

Lab Sample ID: LCSD 410-27966/3-A
Matrix: Water
Analysis Batch: 27974

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 27966

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	55.8		ug/L		94	85 - 115	2	20
Ethene (1C)			60.4	57.9		ug/L		96	83 - 115	2	20
Methane (1C)			59.4	61.0		ug/L		103	85 - 115	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*94*		*28 - 140*

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: MB 410-28419/1-A
Matrix: Water
Analysis Batch: 28446

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 28419

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		07/31/20 08:48	07/31/20 10:24	1
Ethene (1C)	ND		5.0	1.0	ug/L		07/31/20 08:48	07/31/20 10:24	1
Methane (1C)	ND		5.0	3.0	ug/L		07/31/20 08:48	07/31/20 10:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*103*		*28 - 140*	*07/31/20 08:48*	*07/31/20 10:24*	*1*

Lab Sample ID: LCS 410-28419/2-A
Matrix: Water
Analysis Batch: 28446

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 28419

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethane (1C)	59.4	60.7		ug/L		102	85 - 115
Ethene (1C)	60.4	62.7		ug/L		104	83 - 115
Methane (1C)	59.4	64.5		ug/L		109	85 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*103*		*28 - 140*

Lab Sample ID: LCSD 410-28419/3-A
Matrix: Water
Analysis Batch: 28446

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 28419

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)	59.4	58.5		ug/L		98	85 - 115	4	20
Ethene (1C)	60.4	60.8		ug/L		101	83 - 115	3	20
Methane (1C)	59.4	62.7		ug/L		106	85 - 115	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*102*		*28 - 140*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 410-29798/1-A
Matrix: Water
Analysis Batch: 31355

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29798

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		0.10	0.037	mg/L		08/05/20 10:11	08/06/20 13:40	1
>C22-C44 (1C)	ND		0.10	0.037	mg/L		08/05/20 10:11	08/06/20 13:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*63*		*21 - 116*	*08/05/20 10:11*	*08/06/20 13:40*	*1*
o- terphenyl (Surr) (1C)	*79*		*51 - 126*	*08/05/20 10:11*	*08/06/20 13:40*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: LCS 410-29798/2-A
Matrix: Water
Analysis Batch: 31355

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29798

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
DRO (C10-C28) (1C)			0.800	0.578		mg/L		72	48 - 116		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Chlorobenzene (Surr) (1C)	*72*		*21 - 116*
o- terphenyl (Surr) (1C)	*94*		*51 - 126*

Lab Sample ID: LCSD 410-29798/3-A
Matrix: Water
Analysis Batch: 31355

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 29798

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (C10-C28) (1C)			0.800	0.601		mg/L		75	48 - 116	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Chlorobenzene (Surr) (1C)	*74*		*21 - 116*
o- terphenyl (Surr) (1C)	*100*		*51 - 126*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Lab Sample ID: MB 410-27880/4
Matrix: Water
Analysis Batch: 27880

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND		0.10	0.050	mg/L			07/30/20 06:47	1

Lab Sample ID: LCS 410-27880/3
Matrix: Water
Analysis Batch: 27880

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrogen, Nitrate			0.750	0.762		mg/L		102	90 - 110		

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 460-715395/3
Matrix: Water
Analysis Batch: 715395

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		0.48	0.16	mg/L			08/10/20 07:13	1

Lab Sample ID: LCS 460-715395/5
Matrix: Water
Analysis Batch: 715395

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			4.80	5.21		mg/L		108	90 - 110		

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: LCSD 460-715395/6
Matrix: Water
Analysis Batch: 715395

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate			4.80	5.08		mg/L		106	90 - 110	3	15

Lab Sample ID: MB 460-715399/3
Matrix: Water
Analysis Batch: 715399

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.32	0.039	mg/L			08/10/20 07:11	1

Lab Sample ID: LCS 460-715399/5
Matrix: Water
Analysis Batch: 715399

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			3.20	3.14		mg/L		98	90 - 110		

Lab Sample ID: LCSD 460-715399/6
Matrix: Water
Analysis Batch: 715399

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			3.20	3.11		mg/L		97	90 - 110	1	15

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-27839/1-A
Matrix: Water
Analysis Batch: 30342

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 27839

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.20	0.096	mg/L		07/30/20 02:55	08/06/20 08:40	1
Iron	ND		0.20	0.040	mg/L		07/30/20 02:55	08/06/20 08:40	1
Magnesium	ND		0.10	0.040	mg/L		07/30/20 02:55	08/06/20 08:40	1
Potassium	ND		0.50	0.20	mg/L		07/30/20 02:55	08/06/20 08:40	1
Sodium	ND		1.0	0.24	mg/L		07/30/20 02:55	08/06/20 08:40	1

Lab Sample ID: LCS 410-27839/2-A
Matrix: Water
Analysis Batch: 30342

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 27839

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Calcium			0.400	0.439		mg/L		110	80 - 120		
Iron			0.402	0.424		mg/L		105	80 - 120		
Magnesium			0.200	0.213		mg/L		107	80 - 120		
Potassium			5.60	5.98		mg/L		107	80 - 120		
Sodium			2.00	2.19		mg/L		109	80 - 120		

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 410-30455/1-A
Matrix: Water
Analysis Batch: 32854

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 30455

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		08/06/20 14:26	08/12/20 17:30	1

Lab Sample ID: LCS 410-30455/2-A
Matrix: Water
Analysis Batch: 32854

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 30455

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	4.92	4.64		ug/L		94	90 - 115

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 410-29066/20
Matrix: Water
Analysis Batch: 29066

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8.0	8.0	mg/L			07/30/20 22:16	1

Lab Sample ID: LCS 410-29066/21
Matrix: Water
Analysis Batch: 29066

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	189	166		mg/L		88	82 - 106

Lab Sample ID: 410-9021-1 MS
Matrix: Water
Analysis Batch: 29066

Client Sample ID: CD-3-W-46.0-20200729
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	300	FL	189	424	FL	mg/L		63	82 - 106

Lab Sample ID: 410-9021-1 DU
Matrix: Water
Analysis Batch: 29066

Client Sample ID: CD-3-W-46.0-20200729
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	300	FL	304		mg/L		0.4	5

Method: 4500 NH3 C-2011 - Ammonia

Lab Sample ID: MB 410-28916/1-A
Matrix: Water
Analysis Batch: 28971

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 28916

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia-N	ND		0.75	0.25	mg/L		08/03/20 08:44	08/03/20 10:22	1

Method: 4500 NH3 C-2011 - Ammonia (Continued)

Lab Sample ID: LCS 410-28916/2-A
Matrix: Water
Analysis Batch: 28971

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 28916

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia-N			500	491		mg/L		98	93 - 100		

Method: 4500 S2 D-2011 - Sulfide, Total

Lab Sample ID: MB 410-29935/1
Matrix: Water
Analysis Batch: 29935

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.30	0.10	mg/L			08/05/20 12:43	1

Lab Sample ID: LCS 410-29935/13
Matrix: Water
Analysis Batch: 29935

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide			1.00	1.10		mg/L		110	90 - 110		

GC/MS VOA

Analysis Batch: 28329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9021-1	CD-3-W-46.0-20200729	Total/NA	Water	8260C/UST	
MB 410-28329/5	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-28329/6	Lab Control Sample	Total/NA	Water	8260C/UST	
LCS 410-28329/8	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-28329/7	Lab Control Sample Dup	Total/NA	Water	8260C/UST	
LCSD 410-28329/9	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

GC/MS Semi VOA

Prep Batch: 29293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9021-1	CD-3-W-46.0-20200729	Total/NA	Water	3510C	
MB 410-29293/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-29293/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-29293/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 29712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9021-1	CD-3-W-46.0-20200729	Total/NA	Water	8270D	29293
MB 410-29293/1-A	Method Blank	Total/NA	Water	8270D	29293
LCS 410-29293/2-A	Lab Control Sample	Total/NA	Water	8270D	29293
LCSD 410-29293/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	29293

GC VOA

Prep Batch: 27966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9021-1	CD-3-W-46.0-20200729	Total/NA	Water	RSK-175	
MB 410-27966/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-27966/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-27966/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 27974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9021-1	CD-3-W-46.0-20200729	Total/NA	Water	RSK-175	27966
MB 410-27966/1-A	Method Blank	Total/NA	Water	RSK-175	27966
LCS 410-27966/2-A	Lab Control Sample	Total/NA	Water	RSK-175	27966
LCSD 410-27966/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	27966

Prep Batch: 28419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9021-1 - DL	CD-3-W-46.0-20200729	Total/NA	Water	RSK-175	
MB 410-28419/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-28419/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-28419/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 28446

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9021-1 - DL	CD-3-W-46.0-20200729	Total/NA	Water	RSK-175	28419
MB 410-28419/1-A	Method Blank	Total/NA	Water	RSK-175	28419
LCS 410-28419/2-A	Lab Control Sample	Total/NA	Water	RSK-175	28419
LCSD 410-28419/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	28419

GC Semi VOA

Analysis Batch: 28450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9021-1	CD-3-W-46.0-20200729	Total/NA	Water	Total TPH	

Prep Batch: 29798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9021-1	CD-3-W-46.0-20200729	Total/NA	Water	3510C	
MB 410-29798/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-29798/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-29798/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 31355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9021-1	CD-3-W-46.0-20200729	Total/NA	Water	8015C	29798
MB 410-29798/1-A	Method Blank	Total/NA	Water	8015C	29798
LCS 410-29798/2-A	Lab Control Sample	Total/NA	Water	8015C	29798
LCSD 410-29798/3-A	Lab Control Sample Dup	Total/NA	Water	8015C	29798

HPLC/IC

Analysis Batch: 27880

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9021-1	CD-3-W-46.0-20200729	Total/NA	Water	EPA 300.0 R2.1	
MB 410-27880/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-27880/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 715395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9021-1	CD-3-W-46.0-20200729	Total/NA	Water	EPA 300.0 R2.1	
MB 460-715395/3	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 460-715395/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCSD 460-715395/6	Lab Control Sample Dup	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 715399

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9021-1	CD-3-W-46.0-20200729	Total/NA	Water	EPA 300.0 R2.1	
MB 460-715399/3	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 460-715399/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCSD 460-715399/6	Lab Control Sample Dup	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 27839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9021-1	CD-3-W-46.0-20200729	Total Recoverable	Water	3005A	
MB 410-27839/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-27839/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Filtration Batch: 29302

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9021-1	CD-3-W-46.0-20200729	Dissolved	Water	Filtration	

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-9021-1

Metals

Analysis Batch: 30342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9021-1	CD-3-W-46.0-20200729	Total Recoverable	Water	6010C	27839
MB 410-27839/1-A	Method Blank	Total Recoverable	Water	6010C	27839
LCS 410-27839/2-A	Lab Control Sample	Total Recoverable	Water	6010C	27839

Prep Batch: 30455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9021-1	CD-3-W-46.0-20200729	Dissolved	Water	Non-Digest Prep	29302
MB 410-30455/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-30455/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	

Analysis Batch: 32854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9021-1	CD-3-W-46.0-20200729	Dissolved	Water	6020A	30455
MB 410-30455/1-A	Method Blank	Total/NA	Water	6020A	30455
LCS 410-30455/2-A	Lab Control Sample	Total/NA	Water	6020A	30455

General Chemistry

Prep Batch: 28916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9021-1	CD-3-W-46.0-20200729	Total/NA	Water	4500 NH3 B-2011	
MB 410-28916/1-A	Method Blank	Total/NA	Water	4500 NH3 B-2011	
LCS 410-28916/2-A	Lab Control Sample	Total/NA	Water	4500 NH3 B-2011	

Analysis Batch: 28971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9021-1	CD-3-W-46.0-20200729	Total/NA	Water	4500 NH3 C-2011	28916
MB 410-28916/1-A	Method Blank	Total/NA	Water	4500 NH3 C-2011	28916
LCS 410-28916/2-A	Lab Control Sample	Total/NA	Water	4500 NH3 C-2011	28916

Analysis Batch: 29066

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9021-1	CD-3-W-46.0-20200729	Total/NA	Water	2320B-2011	
MB 410-29066/20	Method Blank	Total/NA	Water	2320B-2011	
LCS 410-29066/21	Lab Control Sample	Total/NA	Water	2320B-2011	
410-9021-1 MS	CD-3-W-46.0-20200729	Total/NA	Water	2320B-2011	
410-9021-1 DU	CD-3-W-46.0-20200729	Total/NA	Water	2320B-2011	

Analysis Batch: 29935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9021-1	CD-3-W-46.0-20200729	Total/NA	Water	4500 S2 D-2011	
MB 410-29935/1	Method Blank	Total/NA	Water	4500 S2 D-2011	
LCS 410-29935/13	Lab Control Sample	Total/NA	Water	4500 S2 D-2011	

Lab Chronicle

Client: Stantec Consulting Corp.
Job ID: 410-9021-1
Project/Site: PHL Penrose Drilling Sampling

Client Sample ID: CD-3-W-46.0-20200729
Lab Sample ID: 410-9021-1
Date Collected: 07/29/20 10:45
Matrix: Water
Date Received: 07/29/20 16:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	28329	07/31/20 13:25	UKAD	ELLE
Total/NA	Prep	3510C			29293	08/04/20 08:40	I5BW	ELLE
Total/NA	Analysis	8270D		1	29712	08/05/20 13:54	LW6J	ELLE
Total/NA	Prep	RSK-175	DL		28419	07/31/20 08:48	IYN5	ELLE
Total/NA	Analysis	RSK-175	DL	20	28446	07/31/20 11:57	IYN5	ELLE
Total/NA	Prep	RSK-175			27966	07/30/20 08:38	IYN5	ELLE
Total/NA	Analysis	RSK-175		1	27974	07/30/20 13:18	IYN5	ELLE
Total/NA	Prep	3510C			29798	08/05/20 10:11	I5BW	ELLE
Total/NA	Analysis	8015C		1	31355	08/06/20 15:26	YHQ2	ELLE
Total/NA	Analysis	Total TPH		1	28450	07/31/20 09:17	KP5X	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	27880	07/30/20 15:04	GJ35	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		10	715399	08/10/20 15:27	VMI	TAL EDI
Total/NA	Analysis	EPA 300.0 R2.1		1	715395	08/10/20 10:25	VMI	TAL EDI
Total Recoverable	Prep	3005A			27839	07/30/20 02:55	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	30342	08/06/20 09:52	ULJC	ELLE
Dissolved	Filtration	Filtration			29302	08/04/20 07:30	UAMX	ELLE
Dissolved	Prep	Non-Digest Prep			30455	08/06/20 14:26	UJLA	ELLE
Dissolved	Analysis	6020A		1	32854	08/12/20 17:50	UPJE	ELLE
Total/NA	Analysis	2320B-2011		1	29066	07/30/20 22:30	DI9Q	ELLE
Total/NA	Prep	4500 NH3 B-2011			28916	08/03/20 08:44	UYB0	ELLE
Total/NA	Analysis	4500 NH3 C-2011		1	28971	08/03/20 10:22	UYB0	ELLE
Total/NA	Analysis	4500 S2 D-2011		1	29935	08/05/20 12:43	P8DZ	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Job ID: 410-9021-1
Project/Site: PHL Penrose Drilling Sampling

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015C	3510C	Water	>C12-C22 (1C)
8015C	3510C	Water	>C22-C44 (1C)
Total TPH		Water	Total Reported TPH

Laboratory: Eurofins TestAmerica, Edison

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	68-00522	02-28-21

Method Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-9021-1

Method	Method Description	Protocol	Laboratory
8260C/UST	Volatile Organic Compounds (GC/MS)	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
RSK-175	Dissolved Gases (GC)	RSK	ELLE
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	ELLE
Total TPH	Total TPH	None	ELLE
EPA 300.0 R2.1	Anions, Ion Chromatgraphy	EPA	ELLE
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	TAL EDI
6010C	Metals (ICP)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
2320B-2011	Alkalinity, Total	SM	ELLE
4500 NH3 C-2011	Ammonia	SM	ELLE
4500 S2 D-2011	Sulfide, Total	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
4500 NH3 B-2011	Ammonia, Distillation	SM	ELLE
5030C	Purge and Trap	SW846	ELLE
Filtration	Sample Filtration	None	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique , RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-9021-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-9021-1	CD-3-W-46.0-20200729	Water	07/29/20 10:45	07/29/20 16:07	

Environmental Analysis R[illegible] ustody

eurofins | Lancaster Laboratories Environmental

Acct. # _____

410-9021 Chain of Custody

al use only

COC # 610328

Client Information	
Client: Evergreen c/o Stantec	Acct. #: 16657
Project Name/#: PHC Penrose Drilling Sampling	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 213402602
Sampler: Dane Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: _____

Analysis Requested — Preservation and Filtration Codes

For Lab Use Only
FSC: _____
SCR#: _____

Preservation Codes
H=HCl, T=Thiosulfate, N=HNO_3, B=NaOH, S=H_2SO_4, P=H_3PO_4, F=Field Filtered, O=Other

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Water	Other	Total # of Containers	Custom TPH w/ Ranges	TPH GRO 8260/moisture	Metal 6010/Lead (dissolved 6020/total 6010)	Sulfide	Chloride, Nitrate Nitrogen Sulfate	Volatile Headspace Hydrocarbon	Total Alkalinity to 4.5	Ammonia Nitrogen	*Short List VOCs 8260 including TBA 8260+EDB8011	*Short list SVOCs 8270	Remarks
CD-3-W-46.0-20200729	7/29/20	1045	X			X		17	X	X	X	X	X	X	X	X	X	X	* refer to Evergreen Petroleum Short List for list of analytes; zinc acetate bottle broke; ≤ replaced w/ unpreserved amber

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: andrew.klingbeil@stantec.com

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)
Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13
NYSDEC Category A or B | MA MCP | CT RCP

Relinquished by	Date	Time	Received by	Date	Time
[signature]	7/29/20	1115	[signature]	7-29-20	1115
[signature]	7-29-20	1554			
			[signature]	7-29-20	1607

EDD Required? Yes No
If yes, format: EQuis

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____

Temperature upon receipt 2.0 °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT https://www.eurofinsus.com/coc
The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.
QCM KAM 7044 0919
Page 28 of 31 8/28/2020

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Carter, Amek A	Carrier Tracking No(s):	COC No: 410-120074.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: amekcarter@eurofinsus.com	State of Origin: Pennsylvania	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Pennsylvania		Job #: 410-9021-1
Address: 777 New Durham Road,	Due Date Requested: 8/10/2020			
City: Edison	TAT Requested (days):			
State, Zip: NJ, 08817				
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	PO #:			
Email:	WO #:			
Project Name: PHL Penrose Drilling Sampling	Project #: 41002220			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D/ (MOD) Local Method	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
CD-3-W-46.0-20200729 (410-9021-1)	7/29/20	10:45 Eastern		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Lancaster Laboratories Env places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Lancaster Laboratories Env laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Lancaster Laboratories Env attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Lancaster Laboratories Env.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Howard Lott	7-30-2020 1025	ELLE	RPydhm	30 July 20 1230	ELLE
2	RPydhm	30 July 20 1445	ELLE	Sarah D	7/30/20 1445	ETA
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-9021-1

Login Number: 9021

List Source: Eurofins Lancaster Laboratories Env

List Number: 1

Creator: Colon Martinez, Jessenia C

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-9021-1

Login Number: 9021
List Number: 2
Creator: Armbruster, Chris

List Source: Eurofins TestAmerica, Edison
List Creation: 07/31/20 03:12 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.7°C IR11
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-9160-1
Client Project/Site: PHL Penrose

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Andrew Klingbeil

Authorized for release by:
8/27/2020 10:55:11 AM

Amek Carter, Project Manager
(717)556-7252
amekcarter@eurofinsus.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments. QC data that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result. Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
8/27/2020 10:55:11 AM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 7
Client Sample Results 8
Surrogate Summary 10
QC Sample Results 11
QC Association Summary 19
Lab Chronicle 22
Certification Summary 23
Method Summary 24
Sample Summary 25
Chain of Custody 26
Receipt Checklists 28

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose

Job ID: 410-9160-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
^c	CCV Recovery is outside acceptance limits.

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-9160-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-9160-1

Comments
No additional comments.

Receipt
The sample was received on 7/30/2020 4:10 PM; the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was -0.6º C.

Receipt Exceptions

A trip blank was not submitted for analysis with the sample shipment and was not listed on the Chain of Custody (COC).

GC/MS VOA
Method 8260C/UST: The following sample CD-3-W-82.0-20200730 (410-9160-1) had matrix interference with the internal standard t-Butyl alcohol-d10 therefore the GRO result is biased low.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: The continuing calibration verification (CCV) analyzed in batch 410-30388 was outside the method criteria for the following analyte(s): Benzo[g,h,i]perylene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC VOA
Method RSK-175: The method requirement for no headspace was not met. The following volatile sample was analyzed with significant headspace in the sample container(s): CD-3-W-82.0-20200730 (410-9160-1). Significant headspace is defined as a bubble greater than 6 mm in diameter.

Method RSK-175: The method requirement for no headspace was not met for the analysis of Methane. The following RSK_175 sample was analyzed with significant headspace in the sample container(s): CD-3-W-82.0-20200730 (410-9160-1). Significant headspace is defined as a bubble greater than 6 mm in diameter.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
Method Filtration: The following sample was not filtered within 15 minutes of sample collection as required by the method: CD-3-W-82.0-20200730 (410-9160-1). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

Job ID: 410-9160-1 (Continued)

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Conti

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose

Job ID: 410-9160-1

Client Sample ID: CD-3-W-82.0-20200730 — Lab Sample ID: 410-9160-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,3,5-Trimethylbenzene	15	J	25	1.5	ug/L	5		8260C/UST	Total/NA
Benzene	950		5.0	1.0	ug/L	5		8260C/UST	Total/NA
C4-C12-TPH-GRO	8400		250	150	ug/L	5		8260C/UST	Total/NA
Ethylbenzene	14		5.0	2.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	14	J	25	1.0	ug/L	5		8260C/UST	Total/NA
Methyl tertiary butyl ether	46		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Toluene	86		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	220		30	7.0	ug/L	5		8260C/UST	Total/NA
Naphthalene	1.6		0.51	0.10	ug/L	1		8270D	Total/NA
Ethane (1C)	2.5	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	12000		250	150	ug/L	50		RSK-175	Total/NA
Chloride	46		0.32	0.039	mg/L	1		EPA 300.0 R2.1	Total/NA
Sulfate	31		0.48	0.16	mg/L	1		EPA 300.0 R2.1	Total/NA
Calcium	29		0.20	0.096	mg/L	1		6010C	Total Recoverable
Iron	80		0.20	0.040	mg/L	1		6010C	Total Recoverable
Magnesium	16		0.10	0.040	mg/L	1		6010C	Total Recoverable
Potassium	7.7		0.50	0.20	mg/L	1		6010C	Total Recoverable
Sodium	72		1.0	0.24	mg/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	190		8.0	8.0	mg/L	1		2320B-2011	Total/NA
Ammonia-N	0.70	J	1.1	0.36	mg/L	1		4500 NH3 C-2011	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CD-3-W-82.0-20200730

Date Collected: 07/30/20 11:45
Date Received: 07/30/20 16:10

Lab Sample ID: 410-9160-1

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		25	5.0	ug/L			08/05/20 14:41	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			08/05/20 14:41	5
1,3,5-Trimethylbenzene	**15**	**J**	25	1.5	ug/L			08/05/20 14:41	5
Benzene	**950**		5.0	1.0	ug/L			08/05/20 14:41	5
C4-C12-TPH-GRO	**8400**		250	150	ug/L			08/05/20 14:41	5
Ethylbenzene	**14**		5.0	2.0	ug/L			08/05/20 14:41	5
Isopropylbenzene	**14**	**J**	25	1.0	ug/L			08/05/20 14:41	5
Methyl tertiary butyl ether	**46**		5.0	1.0	ug/L			08/05/20 14:41	5
Toluene	**86**		5.0	1.0	ug/L			08/05/20 14:41	5
Xylenes, Total	**220**		30	7.0	ug/L			08/05/20 14:41	5
2-Methyl-2-propanol	ND		250	60	ug/L			08/05/20 14:41	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*80 - 120*		*08/05/20 14:41*	*5*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*08/05/20 14:41*	*5*
Dibromofluoromethane (Surr)	*105*		*80 - 120*		*08/05/20 14:41*	*5*
Toluene-d8 (Surr)	*91*		*80 - 120*		*08/05/20 14:41*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.51	0.10	ug/L		08/05/20 07:07	08/06/20 15:11	1
Benzo[a]anthracene	ND		0.51	0.10	ug/L		08/05/20 07:07	08/06/20 15:11	1
Benzo[a]pyrene	ND		0.51	0.10	ug/L		08/05/20 07:07	08/06/20 15:11	1
Benzo[b]fluoranthene	ND		0.51	0.10	ug/L		08/05/20 07:07	08/06/20 15:11	1
Benzo[g,h,i]perylene	ND	^c	0.51	0.10	ug/L		08/05/20 07:07	08/06/20 15:11	1
Chrysene	ND		0.51	0.10	ug/L		08/05/20 07:07	08/06/20 15:11	1
Fluorene	ND		0.51	0.10	ug/L		08/05/20 07:07	08/06/20 15:11	1
Naphthalene	**1.6**		0.51	0.10	ug/L		08/05/20 07:07	08/06/20 15:11	1
Phenanthrene	ND		0.51	0.10	ug/L		08/05/20 07:07	08/06/20 15:11	1
Pyrene	ND		0.51	0.10	ug/L		08/05/20 07:07	08/06/20 15:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*68*		*44 - 102*	*08/05/20 07:07*	*08/06/20 15:11*	*1*
Nitrobenzene-d5 (Surr)	*82*		*38 - 113*	*08/05/20 07:07*	*08/06/20 15:11*	*1*
p-Terphenyl-d14 (Surr)	*45*		*34 - 128*	*08/05/20 07:07*	*08/06/20 15:11*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**2.5**	**J**	5.0	1.0	ug/L		07/31/20 08:45	07/31/20 14:08	1
Ethene (1C)	ND		5.0	1.0	ug/L		07/31/20 08:45	07/31/20 14:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*64*		*28 - 140*	*07/31/20 08:45*	*07/31/20 14:08*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**12000**		250	150	ug/L		08/03/20 08:50	08/03/20 19:45	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*75*		*28 - 140*	*08/03/20 08:50*	*08/03/20 19:45*	*50*

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose

Job ID: 410-9160-1

Client Sample ID: CD-3-W-82.0-20200730

Date Collected: 07/30/20 11:45
Date Received: 07/30/20 16:10

Lab Sample ID: 410-9160-1

Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND		0.50	0.25	mg/L			07/31/20 11:18	5

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**46**		0.32	0.039	mg/L			08/10/20 18:32	1
Sulfate	**31**		0.48	0.16	mg/L			08/10/20 18:32	1

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**29**		0.20	0.096	mg/L		07/31/20 09:44	08/06/20 07:03	1
Iron	**80**		0.20	0.040	mg/L		07/31/20 09:44	08/06/20 07:03	1
Magnesium	**16**		0.10	0.040	mg/L		07/31/20 09:44	08/06/20 07:03	1
Potassium	**7.7**		0.50	0.20	mg/L		07/31/20 09:44	08/06/20 07:03	1
Sodium	**72**		1.0	0.24	mg/L		07/31/20 09:44	08/06/20 07:03	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		08/06/20 14:26	08/12/20 17:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**190**		8.0	8.0	mg/L			08/04/20 02:33	1
Ammonia-N	**0.70**	**J**	1.1	0.36	mg/L		08/03/20 08:44	08/03/20 10:22	1
Sulfide	ND		0.30	0.10	mg/L			08/05/20 12:43	1

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose

Job ID: 410-9160-1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-9160-1	CD-3-W-82.0-20200730	86	100	105	91
LCS 410-29839/5	Lab Control Sample	90	99	107	90
LCS 410-29839/7	Lab Control Sample	87	99	106	90
LCSD 410-29839/6	Lab Control Sample Dup	91	100	107	90
LCSD 410-29839/8	Lab Control Sample Dup	87	99	106	91
MB 410-29839/9	Method Blank	90	99	106	90

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(44-102)	(38-113)	(34-128)
410-9160-1	CD-3-W-82.0-20200730	68	82	45
LCS 410-29725/2-A	Lab Control Sample	81	87	90
LCSD 410-29725/3-A	Lab Control Sample Dup	88	91	82
MB 410-29725/1-A	Method Blank	79	84	96

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		Propene1
Lab Sample ID	Client Sample ID	(28-140)
410-9160-1	CD-3-W-82.0-20200730	64
410-9160-1 - DL	CD-3-W-82.0-20200730	75
LCS 410-28409/2-A	Lab Control Sample	91
LCS 410-28924/2-A	Lab Control Sample	94
LCSD 410-28409/3-A	Lab Control Sample Dup	94
LCSD 410-28924/3-A	Lab Control Sample Dup	93
MB 410-28409/1-A	Method Blank	96
MB 410-28924/1-A	Method Blank	96

Surrogate Legend

Propene = Propene

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-29839/9
Matrix: Water
Analysis Batch: 29839

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			08/05/20 12:58	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			08/05/20 12:58	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			08/05/20 12:58	1
Benzene	ND		1.0	0.20	ug/L			08/05/20 12:58	1
C4-C12-TPH-GRO	ND		50	29	ug/L			08/05/20 12:58	1
Ethylbenzene	ND		1.0	0.40	ug/L			08/05/20 12:58	1
Isopropylbenzene	ND		5.0	0.20	ug/L			08/05/20 12:58	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			08/05/20 12:58	1
Toluene	ND		1.0	0.20	ug/L			08/05/20 12:58	1
Xylenes, Total	ND		6.0	1.4	ug/L			08/05/20 12:58	1
2-Methyl-2-propanol	ND		50	12	ug/L			08/05/20 12:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*		*08/05/20 12:58*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*08/05/20 12:58*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 120*		*08/05/20 12:58*	*1*
Toluene-d8 (Surr)	*90*		*80 - 120*		*08/05/20 12:58*	*1*

Lab Sample ID: LCS 410-29839/5
Matrix: Water
Analysis Batch: 29839

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	20.0	15.6		ug/L		78	75 - 120
1,2-Dichloroethane	20.0	18.9		ug/L		94	73 - 124
1,3,5-Trimethylbenzene	20.0	15.5		ug/L		77	75 - 120
Benzene	20.0	20.1		ug/L		100	80 - 120
Ethylbenzene	20.0	16.8		ug/L		84	80 - 120
Isopropylbenzene	20.0	16.9		ug/L		84	80 - 120
Methyl tertiary butyl ether	20.0	18.3		ug/L		92	69 - 122
Naphthalene	20.0	14.1		ug/L		71	53 - 124
Toluene	20.0	16.8		ug/L		84	80 - 120
Xylenes, Total	60.0	50.9		ug/L		85	80 - 120
2-Methyl-2-propanol	200	147		ug/L		74	60 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*107*		*80 - 120*
Toluene-d8 (Surr)	*90*		*80 - 120*

Lab Sample ID: LCS 410-29839/7
Matrix: Water
Analysis Batch: 29839

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C4-C12-TPH-GRO	1000	1000		ug/L		100	67 - 120

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-29839/7
Matrix: Water
Analysis Batch: 29839

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*87*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*106*		*80 - 120*
Toluene-d8 (Surr)	*90*		*80 - 120*

Lab Sample ID: LCSD 410-29839/6
Matrix: Water
Analysis Batch: 29839

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene			20.0	16.5		ug/L		83	75 - 120	6	30
1,2-Dichloroethane			20.0	19.9		ug/L		100	73 - 124	5	30
1,3,5-Trimethylbenzene			20.0	16.3		ug/L		82	75 - 120	5	30
Benzene			20.0	21.0		ug/L		105	80 - 120	4	30
Ethylbenzene			20.0	17.6		ug/L		88	80 - 120	5	30
Isopropylbenzene			20.0	17.4		ug/L		87	80 - 120	3	30
Methyl tertiary butyl ether			20.0	19.4		ug/L		97	69 - 122	5	30
Naphthalene			20.0	14.7		ug/L		74	53 - 124	4	30
Toluene			20.0	17.9		ug/L		89	80 - 120	6	30
Xylenes, Total			60.0	53.2		ug/L		89	80 - 120	4	30
2-Methyl-2-propanol			200	158		ug/L		79	60 - 130	7	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*91*		*80 - 120*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*107*		*80 - 120*
Toluene-d8 (Surr)	*90*		*80 - 120*

Lab Sample ID: LCSD 410-29839/8
Matrix: Water
Analysis Batch: 29839

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C4-C12-TPH-GRO			1000	1110		ug/L		111	67 - 120	10	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*87*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*106*		*80 - 120*
Toluene-d8 (Surr)	*91*		*80 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-29725/1-A
Matrix: Water
Analysis Batch: 30126

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29725

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		08/05/20 07:07	08/06/20 01:58	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		08/05/20 07:07	08/06/20 01:58	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		08/05/20 07:07	08/06/20 01:58	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		08/05/20 07:07	08/06/20 01:58	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		08/05/20 07:07	08/06/20 01:58	1
Chrysene	ND		0.50	0.10	ug/L		08/05/20 07:07	08/06/20 01:58	1
Fluorene	ND		0.50	0.10	ug/L		08/05/20 07:07	08/06/20 01:58	1
Naphthalene	ND		0.50	0.10	ug/L		08/05/20 07:07	08/06/20 01:58	1
Phenanthrene	ND		0.50	0.10	ug/L		08/05/20 07:07	08/06/20 01:58	1
Pyrene	ND		0.50	0.10	ug/L		08/05/20 07:07	08/06/20 01:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*79*		*44 - 102*	*08/05/20 07:07*	*08/06/20 01:58*	*1*
Nitrobenzene-d5 (Surr)	*84*		*38 - 113*	*08/05/20 07:07*	*08/06/20 01:58*	*1*
p-Terphenyl-d14 (Surr)	*96*		*34 - 128*	*08/05/20 07:07*	*08/06/20 01:58*	*1*

Lab Sample ID: LCS 410-29725/2-A
Matrix: Water
Analysis Batch: 30126

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29725

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.1	50.2		ug/L		100	67 - 116
Benzo[a]anthracene	50.0	46.2		ug/L		92	68 - 123
Benzo[a]pyrene	50.2	45.0		ug/L		90	71 - 117
Benzo[b]fluoranthene	50.1	45.2		ug/L		90	69 - 121
Benzo[g,h,i]perylene	50.1	38.5		ug/L		77	60 - 119
Chrysene	50.0	50.8		ug/L		102	65 - 121
Fluorene	50.1	48.2		ug/L		96	56 - 115
Naphthalene	50.4	41.5		ug/L		82	51 - 102
Phenanthrene	50.2	48.6		ug/L		97	65 - 113
Pyrene	50.4	47.3		ug/L		94	65 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*81*		*44 - 102*
Nitrobenzene-d5 (Surr)	*87*		*38 - 113*
p-Terphenyl-d14 (Surr)	*90*		*34 - 128*

Lab Sample ID: LCSD 410-29725/3-A
Matrix: Water
Analysis Batch: 30126

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 29725

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Anthracene	50.1	53.7		ug/L		107	67 - 116	7	30
Benzo[a]anthracene	50.0	49.4		ug/L		99	68 - 123	7	30
Benzo[a]pyrene	50.2	47.9		ug/L		95	71 - 117	6	30
Benzo[b]fluoranthene	50.1	49.3		ug/L		98	69 - 121	9	30
Benzo[g,h,i]perylene	50.1	39.6		ug/L		79	60 - 119	3	30
Chrysene	50.0	54.0		ug/L		108	65 - 121	6	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-29725/3-A
Matrix: Water
Analysis Batch: 30126

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 29725

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluorene			50.1	52.2		ug/L		104	56 - 115	8	30
Naphthalene			50.4	45.4		ug/L		90	51 - 102	9	30
Phenanthrene			50.2	51.7		ug/L		103	65 - 113	6	30
Pyrene			50.4	49.6		ug/L		98	65 - 115	5	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*88*		*44 - 102*
Nitrobenzene-d5 (Surr)	*91*		*38 - 113*
p-Terphenyl-d14 (Surr)	*82*		*34 - 128*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-28409/1-A
Matrix: Water
Analysis Batch: 28445

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 28409

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		07/31/20 08:45	07/31/20 10:23	1
Ethene (1C)	ND		5.0	1.0	ug/L		07/31/20 08:45	07/31/20 10:23	1
Methane (1C)	ND		5.0	3.0	ug/L		07/31/20 08:45	07/31/20 10:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*96*		*28 - 140*	*07/31/20 08:45*	*07/31/20 10:23*	*1*

Lab Sample ID: LCS 410-28409/2-A
Matrix: Water
Analysis Batch: 28445

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 28409

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethane (1C)			59.4	55.1		ug/L		93	85 - 115
Ethene (1C)			60.4	57.7		ug/L		96	83 - 115
Methane (1C)			59.4	59.9		ug/L		101	85 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*91*		*28 - 140*

Lab Sample ID: LCSD 410-28409/3-A
Matrix: Water
Analysis Batch: 28445

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 28409

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	55.3		ug/L		93	85 - 115	0	20
Ethene (1C)			60.4	57.1		ug/L		95	83 - 115	1	20
Methane (1C)			59.4	60.4		ug/L		102	85 - 115	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*94*		*28 - 140*

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: MB 410-28924/1-A
Matrix: Water
Analysis Batch: 28933

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 28924

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		08/03/20 08:50	08/03/20 16:59	1
Ethene (1C)	ND		5.0	1.0	ug/L		08/03/20 08:50	08/03/20 16:59	1
Methane (1C)	ND		5.0	3.0	ug/L		08/03/20 08:50	08/03/20 16:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*96*		*28 - 140*	*08/03/20 08:50*	*08/03/20 16:59*	*1*

Lab Sample ID: LCS 410-28924/2-A
Matrix: Water
Analysis Batch: 28933

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 28924

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	55.5		ug/L		93	85 - 115		
Ethene (1C)			60.4	57.2		ug/L		95	83 - 115		
Methane (1C)			59.4	59.4		ug/L		100	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*94*		*28 - 140*

Lab Sample ID: LCSD 410-28924/3-A
Matrix: Water
Analysis Batch: 28933

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 28924

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	57.4		ug/L		97	85 - 115	3	20
Ethene (1C)			60.4	59.5		ug/L		99	83 - 115	4	20
Methane (1C)			59.4	56.3		ug/L		95	85 - 115	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*93*		*28 - 140*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Lab Sample ID: MB 410-28474/4
Matrix: Water
Analysis Batch: 28474

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND		0.10	0.050	mg/L			07/31/20 09:04	1

Lab Sample ID: LCS 410-28474/3
Matrix: Water
Analysis Batch: 28474

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrogen, Nitrate			0.750	0.728		mg/L		97	90 - 110		

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose

Job ID: 410-9160-1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 460-715745/3
Matrix: Water
Analysis Batch: 715745

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.32	0.039	mg/L			08/10/20 17:17	1
Sulfate	ND		0.48	0.16	mg/L			08/10/20 17:17	1

Lab Sample ID: LCS 460-715745/5
Matrix: Water
Analysis Batch: 715745

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.20	3.08		mg/L		96	90 - 110
Sulfate	4.80	5.21		mg/L		108	90 - 110

Lab Sample ID: LCSD 460-715745/6
Matrix: Water
Analysis Batch: 715745

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3.20	3.08		mg/L		96	90 - 110	0	15
Sulfate	4.80	5.14		mg/L		107	90 - 110	1	15

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-28457/1-A
Matrix: Water
Analysis Batch: 30253

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 28457

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.20	0.096	mg/L		07/31/20 09:44	08/06/20 06:33	1
Iron	ND		0.20	0.040	mg/L		07/31/20 09:44	08/06/20 06:33	1
Magnesium	ND		0.10	0.040	mg/L		07/31/20 09:44	08/06/20 06:33	1
Potassium	ND		0.50	0.20	mg/L		07/31/20 09:44	08/06/20 06:33	1
Sodium	ND		1.0	0.24	mg/L		07/31/20 09:44	08/06/20 06:33	1

Lab Sample ID: LCS 410-28457/2-A
Matrix: Water
Analysis Batch: 30253

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 28457

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	0.400	0.433		mg/L		108	80 - 120
Iron	0.402	0.419		mg/L		104	80 - 120
Magnesium	0.200	0.212		mg/L		106	80 - 120
Potassium	5.60	5.91		mg/L		105	80 - 120
Sodium	2.00	2.16		mg/L		108	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 410-30455/1-A
Matrix: Water
Analysis Batch: 32854

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 30455

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		08/06/20 14:26	08/12/20 17:30	1

Lab Sample ID: LCS 410-30455/2-A
Matrix: Water
Analysis Batch: 32854

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 30455

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	4.92	4.64		ug/L		94	90 - 115

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 410-29514/29
Matrix: Water
Analysis Batch: 29514

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8.0	8.0	mg/L			08/04/20 00:22	1

Lab Sample ID: LCS 410-29514/30
Matrix: Water
Analysis Batch: 29514

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	189	165		mg/L		87	82 - 106

Lab Sample ID: LCSD 410-29514/31
Matrix: Water
Analysis Batch: 29514

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	189	173		mg/L		91	82 - 106	5	10

Method: 4500 NH3 C-2011 - Ammonia

Lab Sample ID: MB 410-28916/1-A
Matrix: Water
Analysis Batch: 28971

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 28916

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia-N	ND		0.75	0.25	mg/L		08/03/20 08:44	08/03/20 10:22	1

Lab Sample ID: LCS 410-28916/2-A
Matrix: Water
Analysis Batch: 28971

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 28916

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia-N	500	491		mg/L		98	93 - 100

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose

Job ID: 410-9160-1

Method: 4500 S2 D-2011 - Sulfide, Total

Lab Sample ID: MB 410-29935/1
Matrix: Water
Analysis Batch: 29935

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.30	0.10	mg/L			08/05/20 12:43	1

Lab Sample ID: LCS 410-29935/13
Matrix: Water
Analysis Batch: 29935

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	1.00	1.10		mg/L		110	90 - 110

GC/MS VOA

Analysis Batch: 29839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9160-1	CD-3-W-82.0-20200730	Total/NA	Water	8260C/UST	
MB 410-29839/9	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-29839/5	Lab Control Sample	Total/NA	Water	8260C/UST	
LCS 410-29839/7	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-29839/6	Lab Control Sample Dup	Total/NA	Water	8260C/UST	
LCSD 410-29839/8	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

GC/MS Semi VOA

Prep Batch: 29725

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9160-1	CD-3-W-82.0-20200730	Total/NA	Water	3510C	
MB 410-29725/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-29725/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-29725/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 30126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-29725/1-A	Method Blank	Total/NA	Water	8270D	29725
LCS 410-29725/2-A	Lab Control Sample	Total/NA	Water	8270D	29725
LCSD 410-29725/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	29725

Analysis Batch: 30388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9160-1	CD-3-W-82.0-20200730	Total/NA	Water	8270D	29725

GC VOA

Prep Batch: 28409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9160-1	CD-3-W-82.0-20200730	Total/NA	Water	RSK-175	
MB 410-28409/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-28409/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-28409/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 28445

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9160-1	CD-3-W-82.0-20200730	Total/NA	Water	RSK-175	28409
MB 410-28409/1-A	Method Blank	Total/NA	Water	RSK-175	28409
LCS 410-28409/2-A	Lab Control Sample	Total/NA	Water	RSK-175	28409
LCSD 410-28409/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	28409

Prep Batch: 28924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9160-1 - DL	CD-3-W-82.0-20200730	Total/NA	Water	RSK-175	
MB 410-28924/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-28924/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-28924/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 28933

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9160-1 - DL	CD-3-W-82.0-20200730	Total/NA	Water	RSK-175	28924

GC VOA (Continued)

Analysis Batch: 28933 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-28924/1-A	Method Blank	Total/NA	Water	RSK-175	28924
LCS 410-28924/2-A	Lab Control Sample	Total/NA	Water	RSK-175	28924
LCSD 410-28924/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	28924

HPLC/IC

Analysis Batch: 28474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9160-1	CD-3-W-82.0-20200730	Total/NA	Water	EPA 300.0 R2.1	
MB 410-28474/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-28474/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 715745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9160-1	CD-3-W-82.0-20200730	Total/NA	Water	EPA 300.0 R2.1	
MB 460-715745/3	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 460-715745/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCSD 460-715745/6	Lab Control Sample Dup	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 28457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9160-1	CD-3-W-82.0-20200730	Total Recoverable	Water	3005A	
MB 410-28457/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-28457/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Filtration Batch: 29302

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9160-1	CD-3-W-82.0-20200730	Dissolved	Water	Filtration	

Analysis Batch: 30253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9160-1	CD-3-W-82.0-20200730	Total Recoverable	Water	6010C	28457
MB 410-28457/1-A	Method Blank	Total Recoverable	Water	6010C	28457
LCS 410-28457/2-A	Lab Control Sample	Total Recoverable	Water	6010C	28457

Prep Batch: 30455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9160-1	CD-3-W-82.0-20200730	Dissolved	Water	Non-Digest Prep	29302
MB 410-30455/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-30455/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	

Analysis Batch: 32854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9160-1	CD-3-W-82.0-20200730	Dissolved	Water	6020A	30455
MB 410-30455/1-A	Method Blank	Total/NA	Water	6020A	30455
LCS 410-30455/2-A	Lab Control Sample	Total/NA	Water	6020A	30455

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose

Job ID: 410-9160-1

General Chemistry

Prep Batch: 28916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9160-1	CD-3-W-82.0-20200730	Total/NA	Water	4500 NH3 B-2011	
MB 410-28916/1-A	Method Blank	Total/NA	Water	4500 NH3 B-2011	
LCS 410-28916/2-A	Lab Control Sample	Total/NA	Water	4500 NH3 B-2011	

Analysis Batch: 28971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9160-1	CD-3-W-82.0-20200730	Total/NA	Water	4500 NH3 C-2011	28916
MB 410-28916/1-A	Method Blank	Total/NA	Water	4500 NH3 C-2011	28916
LCS 410-28916/2-A	Lab Control Sample	Total/NA	Water	4500 NH3 C-2011	28916

Analysis Batch: 29514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9160-1	CD-3-W-82.0-20200730	Total/NA	Water	2320B-2011	
MB 410-29514/29	Method Blank	Total/NA	Water	2320B-2011	
LCS 410-29514/30	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 410-29514/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	

Analysis Batch: 29935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9160-1	CD-3-W-82.0-20200730	Total/NA	Water	4500 S2 D-2011	
MB 410-29935/1	Method Blank	Total/NA	Water	4500 S2 D-2011	
LCS 410-29935/13	Lab Control Sample	Total/NA	Water	4500 S2 D-2011	

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose

Job ID: 410-9160-1

Client Sample ID: CD-3-W-82.0-20200730

Date Collected: 07/30/20 11:45
Date Received: 07/30/20 16:10

Lab Sample ID: 410-9160-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	29839	08/05/20 14:41	UKAD	ELLE
Total/NA	Prep	3510C			29725	08/05/20 07:07	R9CT	ELLE
Total/NA	Analysis	8270D		1	30388	08/06/20 15:11	ULM3	ELLE
Total/NA	Prep	RSK-175			28409	07/31/20 08:45	IYN5	ELLE
Total/NA	Analysis	RSK-175		1	28445	07/31/20 14:08	IYN5	ELLE
Total/NA	Prep	RSK-175	DL		28924	08/03/20 08:50	IYN5	ELLE
Total/NA	Analysis	RSK-175	DL	50	28933	08/03/20 19:45	LXF2	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	28474	07/31/20 11:18	IMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		1	715745	08/10/20 18:32	VMI	TAL EDI
Total Recoverable	Prep	3005A			28457	07/31/20 09:44	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	30253	08/06/20 07:03	ULJC	ELLE
Dissolved	Filtration	Filtration			29302	08/04/20 07:30	UAMX	ELLE
Dissolved	Prep	Non-Digest Prep			30455	08/06/20 14:26	UJLA	ELLE
Dissolved	Analysis	6020A		1	32854	08/12/20 17:48	UPJE	ELLE
Total/NA	Analysis	2320B-2011		1	29514	08/04/20 02:33	DI9Q	ELLE
Total/NA	Prep	4500 NH3 B-2011			28916	08/03/20 08:44	UYB0	ELLE
Total/NA	Analysis	4500 NH3 C-2011		1	28971	08/03/20 10:22	UYB0	ELLE
Total/NA	Analysis	4500 S2 D-2011		1	29935	08/05/20 12:43	P8DZ	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose

Job ID: 410-9160-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-21

Laboratory: Eurofins TestAmerica, Edison

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	68-00522	02-28-21

Method Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose

Job ID: 410-9160-1

Method	Method Description	Protocol	Laboratory
8260C/UST	Volatile Organic Compounds (GC/MS)	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
RSK-175	Dissolved Gases (GC)	RSK	ELLE
EPA 300.0 R2.1	Anions, Ion Chromatgraphy	EPA	ELLE
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	TAL EDI
6010C	Metals (ICP)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
2320B-2011	Alkalinity, Total	SM	ELLE
4500 NH3 C-2011	Ammonia	SM	ELLE
4500 S2 D-2011	Sulfide, Total	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
4500 NH3 B-2011	Ammonia, Distillation	SM	ELLE
5030C	Purge and Trap	SW846	ELLE
Filtration	Sample Filtration	None	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose

Job ID: 410-9160-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-9160-1	CD-3-W-82.0-20200730	Water	07/30/20 11:45	07/30/20 16:10	

Environmental Analysis R ustody

eurofins | Lancaster Laboratories Environmental Acct. # _____

410-9160 Chain of Custody

tal use only

COC # 610329

Client Information

Client: Evergreen c/o Stantec	Acct. #: 106657
Project Name/#: PTL Penrose Drilling Sampling	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 2134026002
Sampler: Dave Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

For Lab Use Only
FSC: _____
SCR#: _____

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks
* refer to Evergreen Petroleum Short List for list of analytes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Sediment	Tissue	Water	Ground	Potable	Surface	NPDES	Other:	Total # of Containers	Custom TPH w/ Ranges	TPH-GRO 8260/moisture	Metals(10)/Lead (dissolved 6020/total 6010B)	Sulfide	Chloride, Nitrate Nitrogen, Sulfate	Volatile Organic Hydrocarbons	Total Alkalinity to 4.5	Ammonia, Nitrogen	*Short List VOCs 8260 including TPH 8260+EDB8011	*Short List SVOCs 8270	Remarks
CD-3-W-82.0-20200730	7/30/20	1145	X					X						17	X	X	X	X	X	X	X	X	X	X	

Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water ☐ Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: ☐

Analysis Requested — Preservation and Filtration Codes

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: andrew.klingbeil@stantec.com

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)
Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13
NYSDEC Category A or B | MA MCP | CT RCP

Relinquished by	Date	Time	Received by	Date	Time
Dave	7/30/20	17:5[illegible]	Pierre	7/30/20	12:5[illegible]
Pierre	7/30/20				
			W Mathers	7/30/20	1610

EDD Required? Yes No
If yes, format: EQUIS
Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:
UPS _____ FedEx _____ Other _____
Temperature upon receipt -0.6 °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT https://www.eurofinsus.com/coc
The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

WM KAM 7044 0919

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Carter, Amek A	Carrier Tracking No(s):	COC No: 410-133563.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: amekcarter@eurofinsus.com	State of Origin: Pennsylvania	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Pennsylvania		Job #: 410-9160-1
Address: 777 New Durham Road, ,	Due Date Requested: 8/11/2020			
City: Edison	TAT Requested (days):			
State, Zip: NJ, 08817				
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	PO #:			
Email:	WO #:			
Project Name: PHL Penrose	Project #: 41002220			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D/ (MOD) Local Method	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
CD-3-W-82.0-20200730 (410-9160-1)	7/30/20	11:45 Eastern		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Lancaster Laboratories Env places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Lancaster Laboratories Env laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Lancaster Laboratories Env attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Lancaster Laboratories Env.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: [signature]	Date/Time: 7-31-2020 1004	Company: ELLE	Received by: [signature]	Date/Time: 31July20 1200	Company: ELLE
Relinquished by: [signature]	Date/Time: 31July20 1745	Company: ELLE	Received by: [signature]	Date/Time: 7/31/20 1745	Company: TA6D1
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	IR11 1.4°C	

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Stantec Consulting Corp. Job Number: 410-9160-1

Login Number: 9160 **List Source: Eurofins Lancaster Laboratories Env**
List Number: 1
Creator: Mathers, William

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-9160-1

Login Number: 9160
List Number: 2
Creator: Armbruster, Chris

List Source: Eurofins TestAmerica, Edison
List Creation: 08/03/20 12:33 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.4°C IR11
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing America



ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-9564-1
Client Project/Site: PHL Penrose

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Andrew Klingbeil

Sarah Stover

Authorized for release by:
8/31/2020 6:54:10 PM
Sarah Stover, Project Management Assistant I
sarahstover@eurofinsus.com

Designee for

Amek Carter, Project Manager
(717)556-7252
amekcarter@eurofinsus.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments. QC data that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result. Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Sarah Stover

Sarah Stover
Project Management Assistant I
8/31/2020 6:54:10 PM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 6
Client Sample Results 7
Surrogate Summary 10
QC Sample Results 12
QC Association Summary 21
Lab Chronicle 25
Certification Summary 26
Method Summary 27
Sample Summary 28
Chain of Custody 29
Receipt Checklists 30

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose

Job ID: 410-9564-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
XH	Surrogate recovery is above control limits

HPLC/IC

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-9564-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-9564-1

Comments
No additional comments.

Receipt
The sample was received on 8/4/2020 7:20 PM; the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.5º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

HPLC/IC
Method 300.0: The following sample was analyzed outside of analytical holding time due to laboratory error: CD-02-25-20200803 (410-9564-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA
Method 8015C: Surrogate Chlorobenzene recovery for the following sample was outside control limits: CD-02-25-20200803 (410-9564-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8011: Surrogate recovery for the following sample was outside the upper control limit: CD-02-25-20200803 (410-9564-1). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method Filtration: The following sample was not filtered within 15 minutes of sample collection as required by the method: CD-02-25-20200803 (410-9564-1). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose

Job ID: 410-9564-1

Client Sample ID: CD-02-25-20200803 — Lab Sample ID: 410-9564-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	820		50	10	ug/L	10		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	260		50	3.0	ug/L	10		8260C/UST	Total/NA
C4-C12-TPH-GRO	35000		500	290	ug/L	10		8260C/UST	Total/NA
Ethylbenzene	570		10	4.0	ug/L	10		8260C/UST	Total/NA
Isopropylbenzene	23	J	50	2.0	ug/L	10		8260C/UST	Total/NA
Xylenes, Total	3600		60	14	ug/L	10		8260C/UST	Total/NA
Benzene - DL	2400		100	20	ug/L	100		8260C/UST	Total/NA
Toluene - DL	4200		100	20	ug/L	100		8260C/UST	Total/NA
Naphthalene - DL	240		2.5	0.50	ug/L	5		8270D	Total/NA
Ethane (1C)	1.9	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C)	300		5.0	3.0	ug/L	1		RSK-175	Total/NA
>C12-C22 (1C)	0.82		0.095	0.035	mg/L	1		8015C	Total/NA
>C22-C44 (1C)	0.17		0.095	0.035	mg/L	1		8015C	Total/NA
Total Reported TPH	0.99		0.20	0.074	mg/L	1		Total TPH	Total/NA
Sulfate	41		5.0	1.5	mg/L	5		EPA 300.0 R2.1	Total/NA
Chloride	79		8.0	4.0	mg/L	20		EPA 300.0 R2.1	Total/NA
Calcium	33		0.20	0.096	mg/L	1		6010C	Total Recoverable
Iron	48		0.20	0.040	mg/L	1		6010C	Total Recoverable
Magnesium	19		0.10	0.040	mg/L	1		6010C	Total Recoverable
Potassium	13		0.50	0.20	mg/L	1		6010C	Total Recoverable
Sodium	50		1.0	0.24	mg/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	94		8.0	8.0	mg/L	1		2320B-2011	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CD-02-25-20200803

Date Collected: 08/03/20 19:00
Date Received: 08/04/20 19:20

Lab Sample ID: 410-9564-1

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**820**		50	10	ug/L			08/05/20 15:29	10
1,2-Dichloroethane	ND		10	3.0	ug/L			08/05/20 15:29	10
1,3,5-Trimethylbenzene	**260**		50	3.0	ug/L			08/05/20 15:29	10
C4-C12-TPH-GRO	**35000**		500	290	ug/L			08/05/20 15:29	10
Ethylbenzene	**570**		10	4.0	ug/L			08/05/20 15:29	10
Isopropylbenzene	**23**	**J**	50	2.0	ug/L			08/05/20 15:29	10
Methyl tertiary butyl ether	ND		10	2.0	ug/L			08/05/20 15:29	10
Xylenes, Total	**3600**		60	14	ug/L			08/05/20 15:29	10
2-Methyl-2-propanol	ND		500	120	ug/L			08/05/20 15:29	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*81*		*80 - 120*		*08/05/20 15:29*	*10*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*08/05/20 15:29*	*10*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*08/05/20 15:29*	*10*
Toluene-d8 (Surr)	*89*		*80 - 120*		*08/05/20 15:29*	*10*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**2400**		100	20	ug/L			08/05/20 15:53	100
Toluene	**4200**		100	20	ug/L			08/05/20 15:53	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*82*		*80 - 120*		*08/05/20 15:53*	*100*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*08/05/20 15:53*	*100*
Dibromofluoromethane (Surr)	*105*		*80 - 120*		*08/05/20 15:53*	*100*
Toluene-d8 (Surr)	*89*		*80 - 120*		*08/05/20 15:53*	*100*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		08/10/20 09:00	08/11/20 14:40	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		08/10/20 09:00	08/11/20 14:40	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		08/10/20 09:00	08/11/20 14:40	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		08/10/20 09:00	08/11/20 14:40	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		08/10/20 09:00	08/11/20 14:40	1
Chrysene	ND		0.50	0.10	ug/L		08/10/20 09:00	08/11/20 14:40	1
Fluorene	ND		0.50	0.10	ug/L		08/10/20 09:00	08/11/20 14:40	1
Phenanthrene	ND		0.50	0.10	ug/L		08/10/20 09:00	08/11/20 14:40	1
Pyrene	ND		0.50	0.10	ug/L		08/10/20 09:00	08/11/20 14:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*76*		*44 - 102*	*08/10/20 09:00*	*08/11/20 14:40*	*1*
Nitrobenzene-d5 (Surr)	*90*		*38 - 113*	*08/10/20 09:00*	*08/11/20 14:40*	*1*
p-Terphenyl-d14 (Surr)	*59*		*34 - 128*	*08/10/20 09:00*	*08/11/20 14:40*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**240**		2.5	0.50	ug/L		08/10/20 09:00	08/12/20 13:05	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*77*		*44 - 102*	*08/10/20 09:00*	*08/12/20 13:05*	*5*
Nitrobenzene-d5 (Surr)	*90*		*38 - 113*	*08/10/20 09:00*	*08/12/20 13:05*	*5*

Client Sample ID: CD-02-25-20200803

Date Collected: 08/03/20 19:00
Date Received: 08/04/20 19:20

Lab Sample ID: 410-9564-1

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14 (Surr)	*57*		*34 - 128*	*08/10/20 09:00*	*08/12/20 13:05*	*5*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**1.9**	**J**	5.0	1.0	ug/L		08/05/20 08:00	08/05/20 18:30	1
Ethene (1C)	ND		5.0	1.0	ug/L		08/05/20 08:00	08/05/20 18:30	1
Methane (1C)	**300**		5.0	3.0	ug/L		08/05/20 08:00	08/05/20 18:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*77*		*28 - 140*	*08/05/20 08:00*	*08/05/20 18:30*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (2C)	ND		0.029	0.0097	ug/L		08/08/20 06:40	08/14/20 21:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*1102*	*XH*	*46 - 136*	*08/08/20 06:40*	*08/14/20 21:29*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*85*		*46 - 136*	*08/08/20 06:40*	*08/14/20 21:29*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	**0.82**		0.095	0.035	mg/L		08/10/20 01:00	08/10/20 17:34	1
>C22-C44 (1C)	**0.17**		0.095	0.035	mg/L		08/10/20 01:00	08/10/20 17:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*134*	*XH*	*21 - 116*	*08/10/20 01:00*	*08/10/20 17:34*	*1*
o- terphenyl (Surr) (1C)	*97*		*51 - 126*	*08/10/20 01:00*	*08/10/20 17:34*	*1*

Method: Total TPH - Total TPH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Reported TPH	**0.99**		0.20	0.074	mg/L			08/11/20 11:58	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND	H	2.0	1.0	mg/L			08/10/20 20:30	20

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**41**		5.0	1.5	mg/L			08/05/20 16:20	5
Chloride	**79**		8.0	4.0	mg/L			08/10/20 20:30	20

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**33**		0.20	0.096	mg/L		08/05/20 02:23	08/06/20 22:28	1
Iron	**48**		0.20	0.040	mg/L		08/05/20 02:23	08/06/20 22:28	1
Magnesium	**19**		0.10	0.040	mg/L		08/05/20 02:23	08/06/20 22:28	1
Potassium	**13**		0.50	0.20	mg/L		08/05/20 02:23	08/06/20 22:28	1
Sodium	**50**		1.0	0.24	mg/L		08/05/20 02:23	08/06/20 22:28	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		08/10/20 06:06	08/11/20 13:58	1

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose

Job ID: 410-9564-1

Client Sample ID: CD-02-25-20200803
Date Collected: 08/03/20 19:00
Date Received: 08/04/20 19:20

Lab Sample ID: 410-9564-1
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	94		8.0	8.0	mg/L			08/05/20 22:27	1
Ammonia-N	ND		1.9	0.63	mg/L		08/10/20 10:14	08/10/20 11:14	1
Sulfide	ND		0.30	0.10	mg/L			08/05/20 15:39	1

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose

Job ID: 410-9564-1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-9564-1	CD-02-25-20200803	81	100	103	89
410-9564-1 - DL	CD-02-25-20200803	82	98	105	89
LCS 410-29839/5	Lab Control Sample	90	99	107	90
LCSD 410-29839/6	Lab Control Sample Dup	91	100	107	90
MB 410-29839/9	Method Blank	90	99	106	90

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(44-102)	(38-113)	(34-128)
410-9564-1	CD-02-25-20200803	76	90	59
410-9564-1 - DL	CD-02-25-20200803	77	90	57
LCS 410-31198/2-A	Lab Control Sample	84	93	86
LCSD 410-31198/3-A	Lab Control Sample Dup	81	90	84
MB 410-31198/1-A	Method Blank	76	87	87

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		Propene1
Lab Sample ID	Client Sample ID	(28-140)
410-9564-1	CD-02-25-20200803	77
LCS 410-29779/2-A	Lab Control Sample	98
LCSD 410-29779/3-A	Lab Control Sample Dup	99
MB 410-29779/1-A	Method Blank	97

Surrogate Legend

Propene = Propene

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1122TCA1	1122TCA2
Lab Sample ID	Client Sample ID	(46-136)	(46-136)
410-9564-1	CD-02-25-20200803	1102 XH	85
LCS 410-30963/2-A	Lab Control Sample	75	73
LCSD 410-30963/3-A	Lab Control Sample Dup	80	80

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose

Job ID: 410-9564-1

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	1122TCA1 (46-136)	1122TCA2 (46-136)								
MB 410-30963/1-A	Method Blank	76	77								

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	CBNZ1 (21-116)	OTP1 (51-126)								
410-9564-1	CD-02-25-20200803	134 XH	97								
LCS 410-31156/2-A	Lab Control Sample	51	101								
LCSD 410-31156/3-A	Lab Control Sample Dup	51	100								
MB 410-31156/1-A	Method Blank	44	91								

Surrogate Legend

CBNZ = Chlorobenzene (Surr)

OTP = o- terphenyl (Surr)

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-29839/9
Matrix: Water
Analysis Batch: 29839

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			08/05/20 12:58	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			08/05/20 12:58	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			08/05/20 12:58	1
Benzene	ND		1.0	0.20	ug/L			08/05/20 12:58	1
C4-C12-TPH-GRO	ND		50	29	ug/L			08/05/20 12:58	1
Ethylbenzene	ND		1.0	0.40	ug/L			08/05/20 12:58	1
Isopropylbenzene	ND		5.0	0.20	ug/L			08/05/20 12:58	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			08/05/20 12:58	1
Toluene	ND		1.0	0.20	ug/L			08/05/20 12:58	1
Xylenes, Total	ND		6.0	1.4	ug/L			08/05/20 12:58	1
2-Methyl-2-propanol	ND		50	12	ug/L			08/05/20 12:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*		*08/05/20 12:58*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*08/05/20 12:58*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 120*		*08/05/20 12:58*	*1*
Toluene-d8 (Surr)	*90*		*80 - 120*		*08/05/20 12:58*	*1*

Lab Sample ID: LCS 410-29839/5
Matrix: Water
Analysis Batch: 29839

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	20.0	15.6		ug/L		78	75 - 120
1,2-Dichloroethane	20.0	18.9		ug/L		94	73 - 124
1,3,5-Trimethylbenzene	20.0	15.5		ug/L		77	75 - 120
Benzene	20.0	20.1		ug/L		100	80 - 120
Ethylbenzene	20.0	16.8		ug/L		84	80 - 120
Isopropylbenzene	20.0	16.9		ug/L		84	80 - 120
Methyl tertiary butyl ether	20.0	18.3		ug/L		92	69 - 122
Naphthalene	20.0	14.1		ug/L		71	53 - 124
Toluene	20.0	16.8		ug/L		84	80 - 120
Xylenes, Total	60.0	50.9		ug/L		85	80 - 120
2-Methyl-2-propanol	200	147		ug/L		74	60 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*107*		*80 - 120*
Toluene-d8 (Surr)	*90*		*80 - 120*

Lab Sample ID: LCSD 410-29839/6
Matrix: Water
Analysis Batch: 29839

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene	20.0	16.5		ug/L		83	75 - 120	6	30
1,2-Dichloroethane	20.0	19.9		ug/L		100	73 - 124	5	30

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-29839/6
Matrix: Water
Analysis Batch: 29839

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,3,5-Trimethylbenzene			20.0	16.3		ug/L		82	75 - 120	5	30
Benzene			20.0	21.0		ug/L		105	80 - 120	4	30
Ethylbenzene			20.0	17.6		ug/L		88	80 - 120	5	30
Isopropylbenzene			20.0	17.4		ug/L		87	80 - 120	3	30
Methyl tertiary butyl ether			20.0	19.4		ug/L		97	69 - 122	5	30
Naphthalene			20.0	14.7		ug/L		74	53 - 124	4	30
Toluene			20.0	17.9		ug/L		89	80 - 120	6	30
Xylenes, Total			60.0	53.2		ug/L		89	80 - 120	4	30
2-Methyl-2-propanol			200	158		ug/L		79	60 - 130	7	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*91*		*80 - 120*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*107*		*80 - 120*
Toluene-d8 (Surr)	*90*		*80 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-31198/1-A
Matrix: Water
Analysis Batch: 31548

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 31198

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		08/10/20 09:00	08/10/20 22:54	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		08/10/20 09:00	08/10/20 22:54	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		08/10/20 09:00	08/10/20 22:54	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		08/10/20 09:00	08/10/20 22:54	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		08/10/20 09:00	08/10/20 22:54	1
Chrysene	ND		0.50	0.10	ug/L		08/10/20 09:00	08/10/20 22:54	1
Fluorene	ND		0.50	0.10	ug/L		08/10/20 09:00	08/10/20 22:54	1
Naphthalene	ND		0.50	0.10	ug/L		08/10/20 09:00	08/10/20 22:54	1
Phenanthrene	ND		0.50	0.10	ug/L		08/10/20 09:00	08/10/20 22:54	1
Pyrene	ND		0.50	0.10	ug/L		08/10/20 09:00	08/10/20 22:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*76*		*44 - 102*	*08/10/20 09:00*	*08/10/20 22:54*	*1*
Nitrobenzene-d5 (Surr)	*87*		*38 - 113*	*08/10/20 09:00*	*08/10/20 22:54*	*1*
p-Terphenyl-d14 (Surr)	*87*		*34 - 128*	*08/10/20 09:00*	*08/10/20 22:54*	*1*

Lab Sample ID: LCS 410-31198/2-A
Matrix: Water
Analysis Batch: 31548

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31198

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene			50.1	46.1		ug/L		92	67 - 116
Benzo[a]anthracene			50.0	54.3		ug/L		109	68 - 123
Benzo[a]pyrene			50.2	47.7		ug/L		95	71 - 117
Benzo[b]fluoranthene			50.1	48.2		ug/L		96	69 - 121

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-31198/2-A
Matrix: Water
Analysis Batch: 31548

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31198

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzo[g,h,i]perylene			50.1	49.2		ug/L		98	60 - 119		
Chrysene			50.0	51.4		ug/L		103	65 - 121		
Fluorene			50.1	43.9		ug/L		88	56 - 115		
Naphthalene			50.4	37.3		ug/L		74	51 - 102		
Phenanthrene			50.2	48.6		ug/L		97	65 - 113		
Pyrene			50.4	46.1		ug/L		91	65 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*84*		*44 - 102*
Nitrobenzene-d5 (Surr)	*93*		*38 - 113*
p-Terphenyl-d14 (Surr)	*86*		*34 - 128*

Lab Sample ID: LCSD 410-31198/3-A
Matrix: Water
Analysis Batch: 31548

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 31198

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Anthracene			50.1	45.4		ug/L		90	67 - 116	2	30
Benzo[a]anthracene			50.0	51.1		ug/L		102	68 - 123	6	30
Benzo[a]pyrene			50.2	46.7		ug/L		93	71 - 117	2	30
Benzo[b]fluoranthene			50.1	47.7		ug/L		95	69 - 121	1	30
Benzo[g,h,i]perylene			50.1	48.3		ug/L		96	60 - 119	2	30
Chrysene			50.0	47.9		ug/L		96	65 - 121	7	30
Fluorene			50.1	42.4		ug/L		84	56 - 115	4	30
Naphthalene			50.4	37.1		ug/L		74	51 - 102	1	30
Phenanthrene			50.2	46.5		ug/L		93	65 - 113	4	30
Pyrene			50.4	43.4		ug/L		86	65 - 115	6	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*81*		*44 - 102*
Nitrobenzene-d5 (Surr)	*90*		*38 - 113*
p-Terphenyl-d14 (Surr)	*84*		*34 - 128*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-29779/1-A
Matrix: Water
Analysis Batch: 29919

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29779

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		08/05/20 08:00	08/05/20 17:15	1
Ethene (1C)	ND		5.0	1.0	ug/L		08/05/20 08:00	08/05/20 17:15	1
Methane (1C)	ND		5.0	3.0	ug/L		08/05/20 08:00	08/05/20 17:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*97*		*28 - 140*	*08/05/20 08:00*	*08/05/20 17:15*	*1*

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCS 410-29779/2-A
Matrix: Water
Analysis Batch: 29919

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29779

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	59.7		ug/L		100	85 - 115		
Ethene (1C)			60.4	61.8		ug/L		102	83 - 115		
Methane (1C)			59.4	61.2		ug/L		103	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*98*		*28 - 140*

Lab Sample ID: LCSD 410-29779/3-A
Matrix: Water
Analysis Batch: 29919

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 29779

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	59.7		ug/L		100	85 - 115	0	20
Ethene (1C)			60.4	60.5		ug/L		100	83 - 115	2	20
Methane (1C)			59.4	61.4		ug/L		103	85 - 115	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*99*		*28 - 140*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-30963/1-A
Matrix: Water
Analysis Batch: 30919

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 30963

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		08/08/20 06:40	08/10/20 18:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*76*		*46 - 136*	*08/08/20 06:40*	*08/10/20 18:43*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*77*		*46 - 136*	*08/08/20 06:40*	*08/10/20 18:43*	*1*

Lab Sample ID: LCS 410-30963/2-A
Matrix: Water
Analysis Batch: 30919

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 30963

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.145		ug/L		113	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*75*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*73*		*46 - 136*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: LCSD 410-30963/3-A
Matrix: Water
Analysis Batch: 30919

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 30963

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.150		ug/L		117	60 - 140	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*80*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*80*		*46 - 136*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 410-31156/1-A
Matrix: Water
Analysis Batch: 31789

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 31156

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		0.10	0.037	mg/L		08/10/20 01:00	08/10/20 16:30	1
>C22-C44 (1C)	ND		0.10	0.037	mg/L		08/10/20 01:00	08/10/20 16:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*44*		*21 - 116*	*08/10/20 01:00*	*08/10/20 16:30*	*1*
o- terphenyl (Surr) (1C)	*91*		*51 - 126*	*08/10/20 01:00*	*08/10/20 16:30*	*1*

Lab Sample ID: LCS 410-31156/2-A
Matrix: Water
Analysis Batch: 31789

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31156

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
DRO (C10-C28) (1C)			0.800	0.608		mg/L		76	48 - 116		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Chlorobenzene (Surr) (1C)	*51*		*21 - 116*
o- terphenyl (Surr) (1C)	*101*		*51 - 126*

Lab Sample ID: LCSD 410-31156/3-A
Matrix: Water
Analysis Batch: 31789

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 31156

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (C10-C28) (1C)			0.800	0.593		mg/L		74	48 - 116	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Chlorobenzene (Surr) (1C)	*51*		*21 - 116*
o- terphenyl (Surr) (1C)	*100*		*51 - 126*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Lab Sample ID: MB 410-31263/4
Matrix: Water
Analysis Batch: 31263

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND		0.10	0.050	mg/L			08/10/20 15:22	1

Lab Sample ID: LCS 410-31263/3
Matrix: Water
Analysis Batch: 31263

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Nitrate	0.750	0.749		mg/L		100	90 - 110

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 410-29708/4
Matrix: Water
Analysis Batch: 29708

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1.0	0.30	mg/L			08/05/20 06:40	1
Chloride	ND		0.40	0.20	mg/L			08/05/20 06:40	1

Lab Sample ID: LCS 410-29708/3
Matrix: Water
Analysis Batch: 29708

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	7.50	7.62		mg/L		102	90 - 110
Chloride	3.00	2.94		mg/L		98	90 - 110

Lab Sample ID: MB 410-31262/4
Matrix: Water
Analysis Batch: 31262

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1.0	0.30	mg/L			08/10/20 15:22	1
Chloride	ND		0.40	0.20	mg/L			08/10/20 15:22	1

Lab Sample ID: LCS 410-31262/3
Matrix: Water
Analysis Batch: 31262

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	7.50	7.84		mg/L		104	90 - 110
Chloride	3.00	3.06		mg/L		102	90 - 110

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-29679/1-A
Matrix: Water
Analysis Batch: 30690

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 29679

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.20	0.096	mg/L		08/05/20 02:23	08/06/20 21:32	1
Iron	ND		0.20	0.040	mg/L		08/05/20 02:23	08/06/20 21:32	1
Magnesium	ND		0.10	0.040	mg/L		08/05/20 02:23	08/06/20 21:32	1
Potassium	ND		0.50	0.20	mg/L		08/05/20 02:23	08/06/20 21:32	1
Sodium	ND		1.0	0.24	mg/L		08/05/20 02:23	08/06/20 21:32	1

Lab Sample ID: LCS 410-29679/2-A
Matrix: Water
Analysis Batch: 30690

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 29679

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	0.400	0.434		mg/L		108	80 - 120
Iron	0.402	0.425		mg/L		106	80 - 120
Magnesium	0.200	0.214		mg/L		107	80 - 120
Potassium	5.60	5.84		mg/L		104	80 - 120
Sodium	2.00	2.14		mg/L		107	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 410-31168/1-A
Matrix: Water
Analysis Batch: 31928

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 31168

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		08/10/20 06:06	08/11/20 13:54	1

Lab Sample ID: LCS 410-31168/2-A
Matrix: Water
Analysis Batch: 31928

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31168

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	4.92	5.12		ug/L		104	90 - 115

Lab Sample ID: 410-9564-1 MS
Matrix: Water
Analysis Batch: 31928

Client Sample ID: CD-02-25-20200803
Prep Type: Dissolved
Prep Batch: 31168

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	ND		4.92	5.22		ug/L		106	75 - 125

Lab Sample ID: 410-9564-1 MSD
Matrix: Water
Analysis Batch: 31928

Client Sample ID: CD-02-25-20200803
Prep Type: Dissolved
Prep Batch: 31168

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	ND		4.92	5.40		ug/L		110	75 - 125	3	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 410-9564-1 DU
Matrix: Water
Analysis Batch: 31928

Client Sample ID: CD-02-25-20200803
Prep Type: Dissolved
Prep Batch: 31168

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	ND		ND		ug/L		NC	20

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 410-30479/19
Matrix: Water
Analysis Batch: 30479

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8.0	8.0	mg/L			08/05/20 20:56	1

Lab Sample ID: MB 410-30479/48
Matrix: Water
Analysis Batch: 30479

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8.0	8.0	mg/L			08/06/20 00:10	1

Lab Sample ID: LCS 410-30479/20
Matrix: Water
Analysis Batch: 30479

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	189	165		mg/L		87	82 - 106

Lab Sample ID: LCS 410-30479/49
Matrix: Water
Analysis Batch: 30479

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	189	165		mg/L		88	82 - 106

Method: 4500 NH3 C-2011 - Ammonia

Lab Sample ID: MB 410-31319/1-A
Matrix: Water
Analysis Batch: 31369

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 31319

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia-N	ND		0.75	0.25	mg/L		08/10/20 10:14	08/10/20 11:14	1

Lab Sample ID: LCS 410-31319/2-A
Matrix: Water
Analysis Batch: 31369

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31319

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia-N	500	475		mg/L		95	93 - 100

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose

Job ID: 410-9564-1

Method: 4500 S2 D-2011 - Sulfide, Total

Lab Sample ID: MB 410-29989/1
Matrix: Water
Analysis Batch: 29989

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.30	0.10	mg/L			08/05/20 15:39	1

Lab Sample ID: LCS 410-29989/13
Matrix: Water
Analysis Batch: 29989

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide			1.00	1.04		mg/L		104	90 - 110		

GC/MS VOA

Analysis Batch: 29839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9564-1	CD-02-25-20200803	Total/NA	Water	8260C/UST	
410-9564-1 - DL	CD-02-25-20200803	Total/NA	Water	8260C/UST	
MB 410-29839/9	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-29839/5	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-29839/6	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

GC/MS Semi VOA

Prep Batch: 31198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9564-1	CD-02-25-20200803	Total/NA	Water	3510C	
410-9564-1 - DL	CD-02-25-20200803	Total/NA	Water	3510C	
MB 410-31198/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-31198/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-31198/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 31548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-31198/1-A	Method Blank	Total/NA	Water	8270D	31198
LCS 410-31198/2-A	Lab Control Sample	Total/NA	Water	8270D	31198
LCSD 410-31198/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	31198

Analysis Batch: 31677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9564-1	CD-02-25-20200803	Total/NA	Water	8270D	31198

Analysis Batch: 32192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9564-1 - DL	CD-02-25-20200803	Total/NA	Water	8270D	31198

GC VOA

Prep Batch: 29779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9564-1	CD-02-25-20200803	Total/NA	Water	RSK-175	
MB 410-29779/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-29779/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-29779/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 29919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9564-1	CD-02-25-20200803	Total/NA	Water	RSK-175	29779
MB 410-29779/1-A	Method Blank	Total/NA	Water	RSK-175	29779
LCS 410-29779/2-A	Lab Control Sample	Total/NA	Water	RSK-175	29779
LCSD 410-29779/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	29779

GC Semi VOA

Analysis Batch: 30919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-30963/1-A	Method Blank	Total/NA	Water	8011	30963
LCS 410-30963/2-A	Lab Control Sample	Total/NA	Water	8011	30963

GC Semi VOA (Continued)

Analysis Batch: 30919 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 410-30963/3-A	Lab Control Sample Dup	Total/NA	Water	8011	30963

Prep Batch: 30963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9564-1	CD-02-25-20200803	Total/NA	Water	8011	
MB 410-30963/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-30963/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-30963/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Prep Batch: 31156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9564-1	CD-02-25-20200803	Total/NA	Water	3510C	
MB 410-31156/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-31156/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-31156/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 31789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9564-1	CD-02-25-20200803	Total/NA	Water	8015C	31156
MB 410-31156/1-A	Method Blank	Total/NA	Water	8015C	31156
LCS 410-31156/2-A	Lab Control Sample	Total/NA	Water	8015C	31156
LCSD 410-31156/3-A	Lab Control Sample Dup	Total/NA	Water	8015C	31156

Analysis Batch: 31867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9564-1	CD-02-25-20200803	Total/NA	Water	Total TPH	

Analysis Batch: 33381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9564-1	CD-02-25-20200803	Total/NA	Water	8011	30963

HPLC/IC

Analysis Batch: 29708

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9564-1	CD-02-25-20200803	Total/NA	Water	EPA 300.0 R2.1	
MB 410-29708/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-29708/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 31262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9564-1	CD-02-25-20200803	Total/NA	Water	EPA 300.0 R2.1	
MB 410-31262/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-31262/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 31263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9564-1	CD-02-25-20200803	Total/NA	Water	EPA 300.0 R2.1	
MB 410-31263/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-31263/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose

Job ID: 410-9564-1

Metals

Prep Batch: 29679

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9564-1	CD-02-25-20200803	Total Recoverable	Water	3005A	
MB 410-29679/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-29679/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Filtration Batch: 30596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9564-1	CD-02-25-20200803	Dissolved	Water	Filtration	
410-9564-1 MS	CD-02-25-20200803	Dissolved	Water	Filtration	
410-9564-1 MSD	CD-02-25-20200803	Dissolved	Water	Filtration	
410-9564-1 DU	CD-02-25-20200803	Dissolved	Water	Filtration	

Analysis Batch: 30690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9564-1	CD-02-25-20200803	Total Recoverable	Water	6010C	29679
MB 410-29679/1-A	Method Blank	Total Recoverable	Water	6010C	29679
LCS 410-29679/2-A	Lab Control Sample	Total Recoverable	Water	6010C	29679

Prep Batch: 31168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9564-1	CD-02-25-20200803	Dissolved	Water	Non-Digest Prep	30596
MB 410-31168/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-31168/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	
410-9564-1 MS	CD-02-25-20200803	Dissolved	Water	Non-Digest Prep	30596
410-9564-1 MSD	CD-02-25-20200803	Dissolved	Water	Non-Digest Prep	30596
410-9564-1 DU	CD-02-25-20200803	Dissolved	Water	Non-Digest Prep	30596

Analysis Batch: 31928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9564-1	CD-02-25-20200803	Dissolved	Water	6020A	31168
MB 410-31168/1-A	Method Blank	Total/NA	Water	6020A	31168
LCS 410-31168/2-A	Lab Control Sample	Total/NA	Water	6020A	31168
410-9564-1 MS	CD-02-25-20200803	Dissolved	Water	6020A	31168
410-9564-1 MSD	CD-02-25-20200803	Dissolved	Water	6020A	31168
410-9564-1 DU	CD-02-25-20200803	Dissolved	Water	6020A	31168

General Chemistry

Analysis Batch: 29989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9564-1	CD-02-25-20200803	Total/NA	Water	4500 S2 D-2011	
MB 410-29989/1	Method Blank	Total/NA	Water	4500 S2 D-2011	
LCS 410-29989/13	Lab Control Sample	Total/NA	Water	4500 S2 D-2011	

Analysis Batch: 30479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9564-1	CD-02-25-20200803	Total/NA	Water	2320B-2011	
MB 410-30479/19	Method Blank	Total/NA	Water	2320B-2011	
MB 410-30479/48	Method Blank	Total/NA	Water	2320B-2011	
LCS 410-30479/20	Lab Control Sample	Total/NA	Water	2320B-2011	
LCS 410-30479/49	Lab Control Sample	Total/NA	Water	2320B-2011	

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose

Job ID: 410-9564-1

General Chemistry

Prep Batch: 31319

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9564-1	CD-02-25-20200803	Total/NA	Water	4500 NH3 B-2011	
MB 410-31319/1-A	Method Blank	Total/NA	Water	4500 NH3 B-2011	
LCS 410-31319/2-A	Lab Control Sample	Total/NA	Water	4500 NH3 B-2011	

Analysis Batch: 31369

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9564-1	CD-02-25-20200803	Total/NA	Water	4500 NH3 C-2011	31319
MB 410-31319/1-A	Method Blank	Total/NA	Water	4500 NH3 C-2011	31319
LCS 410-31319/2-A	Lab Control Sample	Total/NA	Water	4500 NH3 C-2011	31319

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose

Job ID: 410-9564-1

Client Sample ID: CD-02-25-20200803

Date Collected: 08/03/20 19:00
Date Received: 08/04/20 19:20

Lab Sample ID: 410-9564-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		10	29839	08/05/20 15:29	UKAD	ELLE
Total/NA	Analysis	8260C/UST	DL	100	29839	08/05/20 15:53	UKAD	ELLE
Total/NA	Prep	3510C			31198	08/10/20 09:00	R9CT	ELLE
Total/NA	Analysis	8270D		1	31677	08/11/20 14:40	LW6J	ELLE
Total/NA	Prep	3510C	DL		31198	08/10/20 09:00	R9CT	ELLE
Total/NA	Analysis	8270D	DL	5	32192	08/12/20 13:05	LW6J	ELLE
Total/NA	Prep	RSK-175			29779	08/05/20 08:00	IYN5	ELLE
Total/NA	Analysis	RSK-175		1	29919	08/05/20 18:30	IYN5	ELLE
Total/NA	Prep	8011			30963	08/08/20 06:40	UKQ8	ELLE
Total/NA	Analysis	8011		1	33381	08/14/20 21:29	AC3T	ELLE
Total/NA	Prep	3510C			31156	08/10/20 01:00	USL7	ELLE
Total/NA	Analysis	8015C		1	31789	08/10/20 17:34	YHQ2	ELLE
Total/NA	Analysis	Total TPH		1	31867	08/11/20 11:58	KP5X	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	29708	08/05/20 16:20	IGI3	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		20	31262	08/10/20 20:30	GJ35	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		20	31263	08/10/20 20:30	GJ35	ELLE
Total Recoverable	Prep	3005A			29679	08/05/20 02:23	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	30690	08/06/20 22:28	LR7D	ELLE
Dissolved	Filtration	Filtration			30596	08/06/20 22:08	UJLA	ELLE
Dissolved	Prep	Non-Digest Prep			31168	08/10/20 06:06	UJL8	ELLE
Dissolved	Analysis	6020A		1	31928	08/11/20 13:58	BMB	ELLE
Total/NA	Analysis	2320B-2011		1	30479	08/05/20 22:27	JB	ELLE
Total/NA	Prep	4500 NH3 B-2011			31319	08/10/20 10:14	P8DZ	ELLE
Total/NA	Analysis	4500 NH3 C-2011		1	31369	08/10/20 11:14	P8DZ	ELLE
Total/NA	Analysis	4500 S2 D-2011		1	29989	08/05/20 15:39	P8DZ	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose

Job ID: 410-9564-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015C	3510C	Water	>C12-C22 (1C)
8015C	3510C	Water	>C22-C44 (1C)
Total TPH		Water	Total Reported TPH

Method Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose

Job ID: 410-9564-1

Method	Method Description	Protocol	Laboratory
8260C/UST	Volatile Organic Compounds (GC/MS)	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
RSK-175	Dissolved Gases (GC)	RSK	ELLE
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	ELLE
Total TPH	Total TPH	None	ELLE
EPA 300.0 R2.1	Anions, Ion Chromatgraphy	EPA	ELLE
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	ELLE
6010C	Metals (ICP)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
2320B-2011	Alkalinity, Total	SM	ELLE
4500 NH3 C-2011	Ammonia	SM	ELLE
4500 S2 D-2011	Sulfide, Total	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
4500 NH3 B-2011	Ammonia, Distillation	SM	ELLE
5030C	Purge and Trap	SW846	ELLE
8011	Microextraction	SW846	ELLE
Filtration	Sample Filtration	None	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose

Job ID: 410-9564-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-9564-1	CD-02-25-20200803	Water	08/03/20 19:00	08/04/20 19:20	

Environmental Analysis of Custody

eurofins | Lancaster Laboratories Environmental

Acct. #

410-9564 Chain of Custody

For Environmental use only

File #

COC # 610331

Client Information

Client: Evergreen c/o Stantec	Acct. #: 16657
Project Name/#: A014 Penrose Drilling Sampling	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 213402602
Sampler: Andrew Klingbeil	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water ☒ Potable ☐ Ground ☐ NPDES ☐ Surface ☐ | Other:

Analysis Requested

Preservation and Filtration Codes

N | B | H | | | H | | S | | |

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	dissolved Lead, Total Lead, metals	Sulfide	VOCs*, TPH DRO	custom TPH	chloride, nitrate, sulfate	EDB*, headspace hydrocarbons	total alkalinity	ammonia	PAHs*
CD-02-25-20200803	8-3-20	1900	X		17	X	X	X	X	X	X	X	X	X

For Lab Use Only

FSC:

SCR#:

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks

* refer to Evergreen Petroleum Short List

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days:

E-mail address: andrew.klingbeil@stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)

Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13

NYSDEC Category A or B | MA MCP | CT RCP

Relinquished by	Date	Time	Received by	Date	Time
	8-4-20	1600	Mark Denlinger	8/4/20	1600
Mark Denlinger	8/4/20	1900			
				8-4-20	1920

EDD Required? Yes No

If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS FedEx Other

Temperature upon receipt 2.5 °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT https://www.eurofinsus.com/coc

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0919

Login Sample Receipt Checklist

Client: Stantec Consulting Corp. Job Number: 410-9564-1

Login Number: 9564 **List Source: Eurofins Lancaster Laboratories Env**
List Number: 1
Creator: Jeremiah, Cory T

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-9875-1
Client Project/Site: AOI 4 Penrose Drilling

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Andrew Klingbeil

Authorized for release by:
9/4/2020 3:55:18 PM
Ashley Worthy, Project Manager I
(253)248-4965
Ashley.Worthy@Eurofinset.com

Designee for

Amek Carter, Project Manager
(717)556-7252
amekcarter@eurofinsus.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

* QC recoveries that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result.

* Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.

* Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Ashley Worthy
Project Manager I
9/4/2020 3:55:18 PM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 6
Detection Summary 7
Client Sample Results 9
Surrogate Summary 14
QC Sample Results 17
QC Association Summary 31
Lab Chronicle 36
Certification Summary 38
Method Summary 39
Sample Summary 40
Chain of Custody 41
Receipt Checklists 42

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: AOI 4 Penrose Drilling

Job ID: 410-9875-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
FL	MS and/or MSD recovery below control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
XH	Surrogate recovery is above control limits
XL	Surrogate recovery is below control limits

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-9875-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-9875-1

Receipt
The samples were received on 8/6/2020 4:28 PM; the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.8°C

GC/MS VOA
Method 8260C: The following sample CD-01-S-10-20200805 (410-9875-2) had matrix interference with an internal standard t-Butyl alcohol-d10, therefore the GRO result is biased low.

Method 8260C_UST: The continuing calibration verification (CCV) associated with batch 410-34149 recovered outside acceptance criteria, low biased, for Naphthalene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Non-detections of the affected analytes are reported. Any detections are considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gasoline Range Organics
Method 8015D_GRO: The method requirement for no headspace was not met. The container used for analysis of the following sample contained significant headspace: Trip Blank (410-9875-3). Significant headspace is defined as a bubble greater than 6 mm in diameter.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
Method 8015C_DRO: Chlorobenzene surrogate recovery for the following sample was outside control limits: CD-01-W-18-20200805 (410-9875-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8011: The surrogate recovery for the blank associated with prep batch 33073 was outside the control limits. The surrogate recoveries in the samples were within control limits. The data is reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: AOI 4 Penrose Drilling

Job ID: 410-9875-1

Client Sample ID: CD-01-W-18-20200805 — Lab Sample ID: 410-9875-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.22	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Isopropylbenzene	40		5.0	0.20	ug/L	1		8260C/UST	Total/NA
Methyl tertiary butyl ether	0.80	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Toluene	0.50	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
1,2,4-Trimethylbenzene - DL	570		50	10	ug/L	10		8260C/UST	Total/NA
1,3,5-Trimethylbenzene - DL	240		50	3.0	ug/L	10		8260C/UST	Total/NA
Ethylbenzene - DL	310		10	4.0	ug/L	10		8260C/UST	Total/NA
Xylenes, Total - DL	600		60	14	ug/L	10		8260C/UST	Total/NA
Anthracene	0.29	J	0.51	0.10	ug/L	1		8270D	Total/NA
Benzo[a]anthracene	0.43	J	0.51	0.10	ug/L	1		8270D	Total/NA
Benzo[a]pyrene	0.38	J	0.51	0.10	ug/L	1		8270D	Total/NA
Benzo[b]fluoranthene	0.39	J	0.51	0.10	ug/L	1		8270D	Total/NA
Benzo[g,h,i]perylene	0.25	J	0.51	0.10	ug/L	1		8270D	Total/NA
Chrysene	0.56		0.51	0.10	ug/L	1		8270D	Total/NA
Phenanthrene	0.89		0.51	0.10	ug/L	1		8270D	Total/NA
Pyrene	0.85		0.51	0.10	ug/L	1		8270D	Total/NA
Naphthalene - DL	130		2.5	0.51	ug/L	5		8270D	Total/NA
C5-C12 (1C)	21000		1000	280	ug/L	20		8015D	Total/NA
Methane (1C) - DL	16000		500	300	ug/L	100		RSK-175	Total/NA
>C12-C22 (1C)	0.94		0.098	0.036	mg/L	1		8015C	Total/NA
>C22-C44 (1C)	0.27		0.098	0.036	mg/L	1		8015C	Total/NA
Sulfate	2.3	J	5.0	1.5	mg/L	5		EPA 300.0 R2.1	Total/NA
Chloride	27		2.0	1.0	mg/L	5		EPA 300.0 R2.1	Total/NA
Calcium	160		0.21	0.099	mg/L	1		6010C	Total Recoverable
Iron	18		0.21	0.041	mg/L	1		6010C	Total Recoverable
Magnesium	47		0.10	0.041	mg/L	1		6010C	Total Recoverable
Potassium	15		0.52	0.21	mg/L	1		6010C	Total Recoverable
Sodium	46		1.0	0.25	mg/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	640		8.0	8.0	mg/L	1		2320B-2011	Total/NA
Ammonia-N	0.72	J	1.5	0.50	mg/L	1		4500 NH3 C-2011	Total/NA

Client Sample ID: CD-01-S-10-20200805 — Lab Sample ID: 410-9875-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	2.0	J	4.7	0.56	ug/Kg	1	☼	8260C	Total/NA
Benzene	2.7	J	4.7	0.47	ug/Kg	1	☼	8260C	Total/NA
C4-C12-TPH-GRO	560		100	41	ug/Kg	1	☼	8260C	Total/NA
Anthracene	1700	FL	19	3.7	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	1900	FL	19	7.5	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	1600	FL	19	3.7	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	1800	FL	19	3.7	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	850	FL	19	3.7	ug/Kg	1	☼	8270D	Total/NA
Chrysene	1700	FL	19	3.7	ug/Kg	1	☼	8270D	Total/NA
Fluorene	1200	FL	19	3.7	ug/Kg	1	☼	8270D	Total/NA
Naphthalene	60		19	7.5	ug/Kg	1	☼	8270D	Total/NA
Pyrene	3700	FL	19	3.7	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene - DL	6100		93	19	ug/Kg	5	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample ID: CD-01-S-10-20200805 (Continued) — Lab Sample ID: 410-9875-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
>C12-C22 (1C)	43		13	5.6	mg/Kg	1	☼	8015C	Total/NA
>C22-C44 (1C)	110		13	5.6	mg/Kg	1	☼	8015C	Total/NA
Lead	22		1.2	0.50	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 410-9875-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	0.26	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
C5-C12 (1C)	16	J	50	14	ug/L	1		8015D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CD-01-W-18-20200805

Date Collected: 08/05/20 16:00
Date Received: 08/06/20 16:28

Lab Sample ID: 410-9875-1

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		1.0	0.30	ug/L			08/18/20 07:01	1
Benzene	**0.22**	**J**	1.0	0.20	ug/L			08/18/20 07:01	1
Isopropylbenzene	**40**		5.0	0.20	ug/L			08/18/20 07:01	1
Methyl tertiary butyl ether	**0.80**	**J**	1.0	0.20	ug/L			08/18/20 07:01	1
Toluene	**0.50**	**J**	1.0	0.20	ug/L			08/18/20 07:01	1
2-Methyl-2-propanol	ND		50	12	ug/L			08/18/20 07:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*85*		*80 - 120*		*08/18/20 07:01*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*08/18/20 07:01*	*1*
Dibromofluoromethane (Surr)	*94*		*80 - 120*		*08/18/20 07:01*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*08/18/20 07:01*	*1*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**570**		50	10	ug/L			08/19/20 21:20	10
1,3,5-Trimethylbenzene	**240**		50	3.0	ug/L			08/19/20 21:20	10
Ethylbenzene	**310**		10	4.0	ug/L			08/19/20 21:20	10
Xylenes, Total	**600**		60	14	ug/L			08/19/20 21:20	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*		*08/19/20 21:20*	*10*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*08/19/20 21:20*	*10*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*08/19/20 21:20*	*10*
Toluene-d8 (Surr)	*100*		*80 - 120*		*08/19/20 21:20*	*10*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**0.29**	**J**	0.51	0.10	ug/L		08/11/20 18:55	08/12/20 15:32	1
Benzo[a]anthracene	**0.43**	**J**	0.51	0.10	ug/L		08/11/20 18:55	08/12/20 15:32	1
Benzo[a]pyrene	**0.38**	**J**	0.51	0.10	ug/L		08/11/20 18:55	08/12/20 15:32	1
Benzo[b]fluoranthene	**0.39**	**J**	0.51	0.10	ug/L		08/11/20 18:55	08/12/20 15:32	1
Benzo[g,h,i]perylene	**0.25**	**J**	0.51	0.10	ug/L		08/11/20 18:55	08/12/20 15:32	1
Chrysene	**0.56**		0.51	0.10	ug/L		08/11/20 18:55	08/12/20 15:32	1
Fluorene	ND		0.51	0.10	ug/L		08/11/20 18:55	08/12/20 15:32	1
Phenanthrene	**0.89**		0.51	0.10	ug/L		08/11/20 18:55	08/12/20 15:32	1
Pyrene	**0.85**		0.51	0.10	ug/L		08/11/20 18:55	08/12/20 15:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*74*		*44 - 102*	*08/11/20 18:55*	*08/12/20 15:32*	*1*
Nitrobenzene-d5 (Surr)	*80*		*38 - 113*	*08/11/20 18:55*	*08/12/20 15:32*	*1*
p-Terphenyl-d14 (Surr)	*73*		*34 - 128*	*08/11/20 18:55*	*08/12/20 15:32*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**130**		2.5	0.51	ug/L		08/11/20 18:55	08/13/20 14:55	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*67*		*44 - 102*	*08/11/20 18:55*	*08/13/20 14:55*	*5*
Nitrobenzene-d5 (Surr)	*74*		*38 - 113*	*08/11/20 18:55*	*08/13/20 14:55*	*5*
p-Terphenyl-d14 (Surr)	*71*		*34 - 128*	*08/11/20 18:55*	*08/13/20 14:55*	*5*

Client: Stantec Consulting Corp.
Project/Site: AOI 4 Penrose Drilling

Job ID: 410-9875-1

Client Sample ID: CD-01-W-18-20200805

Date Collected: 08/05/20 16:00
Date Received: 08/06/20 16:28

Lab Sample ID: 410-9875-1

Matrix: Water

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C12 (1C)	21000		1000	280	ug/L			08/19/20 15:55	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (fid) (1C)	*106*		*63 - 135*		*08/19/20 15:55*	*20*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		08/07/20 09:13	08/07/20 11:00	1
Ethene (1C)	ND		5.0	1.0	ug/L		08/07/20 09:13	08/07/20 11:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*63*		*28 - 140*	*08/07/20 09:13*	*08/07/20 11:00*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	16000		500	300	ug/L		08/11/20 09:19	08/11/20 15:02	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*74*		*28 - 140*	*08/11/20 09:19*	*08/11/20 15:02*	*100*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0096	ug/L		08/13/20 23:24	08/15/20 00:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*117*		*46 - 136*	*08/13/20 23:24*	*08/15/20 00:03*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*57*		*46 - 136*	*08/13/20 23:24*	*08/15/20 00:03*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	0.94		0.098	0.036	mg/L		08/11/20 22:14	08/12/20 16:37	1
>C22-C44 (1C)	0.27		0.098	0.036	mg/L		08/11/20 22:14	08/12/20 16:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*222*	*XH*	*21 - 116*	*08/11/20 22:14*	*08/12/20 16:37*	*1*
o- terphenyl (Surr) (1C)	*97*		*51 - 126*	*08/11/20 22:14*	*08/12/20 16:37*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND		0.50	0.25	mg/L			08/07/20 08:50	5

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	2.3	J	5.0	1.5	mg/L			08/07/20 08:50	5
Chloride	27		2.0	1.0	mg/L			08/07/20 08:50	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	160		0.21	0.099	mg/L		08/10/20 02:46	08/13/20 13:24	1
Iron	18		0.21	0.041	mg/L		08/10/20 02:46	08/13/20 13:24	1
Magnesium	47		0.10	0.041	mg/L		08/10/20 02:46	08/13/20 13:24	1
Potassium	15		0.52	0.21	mg/L		08/10/20 02:46	08/13/20 13:24	1

Client Sample ID: CD-01-W-18-20200805

Lab Sample ID: 410-9875-1

Date Collected: 08/05/20 16:00
Matrix: Water
Date Received: 08/06/20 16:28

Method: 6010C - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	**46**		1.0	0.25	mg/L		08/10/20 02:46	08/13/20 13:24	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		08/12/20 15:39	08/14/20 15:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**640**		8.0	8.0	mg/L			08/07/20 21:15	1
Ammonia-N	**0.72**	**J**	1.5	0.50	mg/L		08/10/20 10:14	08/10/20 11:14	1
Sulfide	ND		0.30	0.10	mg/L			08/08/20 11:29	1

Client Sample ID: CD-01-S-10-20200805

Lab Sample ID: 410-9875-2

Date Collected: 08/05/20 13:10
Matrix: Solid
Date Received: 08/06/20 16:28
Percent Solids: 89.0

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		4.7	0.37	ug/Kg	☼	08/06/20 22:05	08/08/20 15:01	1
1,3,5-Trimethylbenzene	ND		4.7	0.47	ug/Kg	☼	08/06/20 22:05	08/08/20 15:01	1
Toluene	**2.0**	**J**	4.7	0.56	ug/Kg	☼	08/06/20 22:05	08/08/20 15:01	1
Methyl tertiary butyl ether	ND		4.7	0.47	ug/Kg	☼	08/06/20 22:05	08/08/20 15:01	1
Benzene	**2.7**	**J**	4.7	0.47	ug/Kg	☼	08/06/20 22:05	08/08/20 15:01	1
Naphthalene	ND		4.7	1.9	ug/Kg	☼	08/06/20 22:05	08/08/20 15:01	1
1,2,4-Trimethylbenzene	ND		4.7	0.47	ug/Kg	☼	08/06/20 22:05	08/08/20 15:01	1
Isopropylbenzene	ND		4.7	0.37	ug/Kg	☼	08/06/20 22:05	08/08/20 15:01	1
1,2-Dibromoethane	ND		4.7	0.37	ug/Kg	☼	08/06/20 22:05	08/08/20 15:01	1
1,2-Dichloroethane	ND		4.7	0.56	ug/Kg	☼	08/06/20 22:05	08/08/20 15:01	1
C4-C12-TPH-GRO	**560**		100	41	ug/Kg	☼	08/06/20 22:05	08/08/20 15:01	1
Xylenes, Total	ND		9.3	1.3	ug/Kg	☼	08/06/20 22:05	08/08/20 15:01	1
t-Butyl alcohol	ND		93	14	ug/Kg	☼	08/06/20 22:05	08/08/20 15:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*54 - 135*	*08/06/20 22:05*	*08/08/20 15:01*	*1*
4-Bromofluorobenzene (Surr)	*92*		*50 - 131*	*08/06/20 22:05*	*08/08/20 15:01*	*1*
Dibromofluoromethane (Surr)	*96*		*50 - 141*	*08/06/20 22:05*	*08/08/20 15:01*	*1*
Toluene-d8 (Surr)	*107*		*52 - 141*	*08/06/20 22:05*	*08/08/20 15:01*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**1700**	**FL**	19	3.7	ug/Kg	☼	08/18/20 09:00	08/23/20 23:47	1
Benzo[a]anthracene	**1900**	**FL**	19	7.5	ug/Kg	☼	08/18/20 09:00	08/23/20 23:47	1
Benzo[a]pyrene	**1600**	**FL**	19	3.7	ug/Kg	☼	08/18/20 09:00	08/23/20 23:47	1
Benzo[b]fluoranthene	**1800**	**FL**	19	3.7	ug/Kg	☼	08/18/20 09:00	08/23/20 23:47	1
Benzo[g,h,i]perylene	**850**	**FL**	19	3.7	ug/Kg	☼	08/18/20 09:00	08/23/20 23:47	1
Chrysene	**1700**	**FL**	19	3.7	ug/Kg	☼	08/18/20 09:00	08/23/20 23:47	1
Fluorene	**1200**	**FL**	19	3.7	ug/Kg	☼	08/18/20 09:00	08/23/20 23:47	1
Naphthalene	**60**		19	7.5	ug/Kg	☼	08/18/20 09:00	08/23/20 23:47	1
Pyrene	**3700**	**FL**	19	3.7	ug/Kg	☼	08/18/20 09:00	08/23/20 23:47	1

Client Sample ID: CD-01-S-10-20200805

Lab Sample ID: 410-9875-2
Date Collected: 08/05/20 13:10
Matrix: Solid
Date Received: 08/06/20 16:28
Percent Solids: 89.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	85		34 - 117	08/18/20 09:00	08/23/20 23:47	1
Nitrobenzene-d5 (Surr)	81		23 - 115	08/18/20 09:00	08/23/20 23:47	1
p-Terphenyl-d14 (Surr)	95		35 - 135	08/18/20 09:00	08/23/20 23:47	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	6100		93	19	ug/Kg	☼	08/18/20 09:00	08/24/20 13:44	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	84		34 - 117	08/18/20 09:00	08/24/20 13:44	5
Nitrobenzene-d5 (Surr)	80		23 - 115	08/18/20 09:00	08/24/20 13:44	5
p-Terphenyl-d14 (Surr)	95		35 - 135	08/18/20 09:00	08/24/20 13:44	5

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	43		13	5.6	mg/Kg	☼	08/18/20 09:00	08/20/20 18:49	1
>C22-C44 (1C)	110		13	5.6	mg/Kg	☼	08/18/20 09:00	08/20/20 18:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Chlorobenzene (Surr) (1C)	71		54 - 137	08/18/20 09:00	08/20/20 18:49	1
o- terphenyl (Surr) (1C)	135		42 - 143	08/18/20 09:00	08/20/20 18:49	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	22		1.2	0.50	mg/Kg	☼	08/10/20 04:59	08/11/20 09:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.0		1.0	1.0	%			08/06/20 19:43	1

Client Sample ID: Trip Blank

Lab Sample ID: 410-9875-3
Date Collected: 08/05/20 00:00
Matrix: Water
Date Received: 08/06/20 16:28

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			08/17/20 23:28	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			08/17/20 23:28	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			08/17/20 23:28	1
Benzene	ND		1.0	0.20	ug/L			08/17/20 23:28	1
Ethylbenzene	ND		1.0	0.40	ug/L			08/17/20 23:28	1
Isopropylbenzene	ND		5.0	0.20	ug/L			08/17/20 23:28	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			08/17/20 23:28	1
Toluene	0.26	J	1.0	0.20	ug/L			08/17/20 23:28	1
Xylenes, Total	ND		6.0	1.4	ug/L			08/17/20 23:28	1
2-Methyl-2-propanol	ND		50	12	ug/L			08/17/20 23:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		80 - 120		08/17/20 23:28	1
4-Bromofluorobenzene (Surr)	94		80 - 120		08/17/20 23:28	1
Dibromofluoromethane (Surr)	96		80 - 120		08/17/20 23:28	1
Toluene-d8 (Surr)	99		80 - 120		08/17/20 23:28	1

Client: Stantec Consulting Corp.
Project/Site: AOI 4 Penrose Drilling

Job ID: 410-9875-1

Client Sample ID: Trip Blank

Date Collected: 08/05/20 00:00
Date Received: 08/06/20 16:28

Lab Sample ID: 410-9875-3

Matrix: Water

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C12 (1C)	16	J	50	14	ug/L			08/19/20 14:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (fid) (1C)	*83*		*63 - 135*		*08/19/20 14:06*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0097	ug/L		08/13/20 23:24	08/15/20 00:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*53*		*46 - 136*	*08/13/20 23:24*	*08/15/20 00:20*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*55*		*46 - 136*	*08/13/20 23:24*	*08/15/20 00:20*	*1*

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: AOI 4 Penrose Drilling

Job ID: 410-9875-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(54-135)	(50-131)	(50-141)	(52-141)
410-9875-2	CD-01-S-10-20200805	103	92	96	107
LCS 410-30234/11	Lab Control Sample	98	96	94	104
LCS 410-30234/4	Lab Control Sample	100	97	97	103
LCSD 410-30234/12	Lab Control Sample Dup	100	96	93	104
LCSD 410-30234/5	Lab Control Sample Dup	98	97	97	104
MB 410-30234/7	Method Blank	100	93	96	102

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-9875-1	CD-01-W-18-20200805	85	102	94	100
410-9875-1 - DL	CD-01-W-18-20200805	88	93	96	100
410-9875-3	Trip Blank	91	94	96	99
LCS 410-34149/4	Lab Control Sample	92	96	96	99
LCS 410-35054/4	Lab Control Sample	90	96	96	100
LCSD 410-34149/5	Lab Control Sample Dup	92	96	96	100
LCSD 410-35054/5	Lab Control Sample Dup	90	96	95	99
MB 410-34149/6	Method Blank	91	93	96	100
MB 410-35054/6	Method Blank	89	94	96	99

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(34-117)	(23-115)	(35-135)
410-9875-2	CD-01-S-10-20200805	85	81	95
410-9875-2 - DL	CD-01-S-10-20200805	84	80	95
410-9875-2 MS	CD-01-S-10-20200805	78	73	87
410-9875-2 MSD	CD-01-S-10-20200805	79	81	77
LCS 410-34278/2-A	Lab Control Sample	80	74	88
MB 410-34278/1-A	Method Blank	80	76	99

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: AOI 4 Penrose Drilling

Job ID: 410-9875-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	FBP (44-102)	NBZ (38-113)	TPHd14 (34-128)
410-9875-1	CD-01-W-18-20200805	74	80	73
410-9875-1 - DL	CD-01-W-18-20200805	67	74	71
LCS 410-31966/2-A	Lab Control Sample	70	82	81
MB 410-31966/1-A	Method Blank	72	85	87

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	TFT-F1 (63-135)
410-9875-1	CD-01-W-18-20200805	106
410-9875-3	Trip Blank	83
LCS 410-34093/5	Lab Control Sample	85
LCSD 410-34093/6	Lab Control Sample Dup	81
MB 410-34093/4	Method Blank	86

Surrogate Legend

TFT-F = a,a,a-Trifluorotoluene (fid)

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	Propene1 (28-140)
410-9875-1	CD-01-W-18-20200805	63
410-9875-1 - DL	CD-01-W-18-20200805	74
LCS 410-30733/2-A	Lab Control Sample	92
LCS 410-31787/2-A	Lab Control Sample	95
LCSD 410-30733/3-A	Lab Control Sample Dup	95
LCSD 410-31787/3-A	Lab Control Sample Dup	92
MB 410-30733/1-A	Method Blank	93
MB 410-31787/1-A	Method Blank	93

Surrogate Legend

Propene = Propene

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1122TCA1 (46-136)	1122TCA2 (46-136)
410-9875-1	CD-01-W-18-20200805	117	57
410-9875-3	Trip Blank	53	55
LCS 410-33073/2-A	Lab Control Sample	52	53

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: AOI 4 Penrose Drilling

Job ID: 410-9875-1

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1122TCA1	1122TCA2
Lab Sample ID	Client Sample ID	(46-136)	(46-136)
LCSD 410-33073/3-A	Lab Control Sample Dup	48	47
MB 410-33073/1-A	Method Blank	37 XL	42 XL

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		CBNZ1	OTP1
Lab Sample ID	Client Sample ID	(54-137)	(42-143)
410-9875-2	CD-01-S-10-20200805	71	135
LCS 410-34318/2-A	Lab Control Sample	79	108
MB 410-34318/1-A	Method Blank	81	102

Surrogate Legend

CBNZ = Chlorobenzene (Surr)

OTP = o- terphenyl (Surr)

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		CBNZ1	OTP1
Lab Sample ID	Client Sample ID	(21-116)	(51-126)
410-9875-1	CD-01-W-18-20200805	222 XH	97
LCS 410-32109/2-A	Lab Control Sample	76	102
LCSD 410-32109/3-A	Lab Control Sample Dup	82	104
MB 410-32109/1-A	Method Blank	72	87

Surrogate Legend

CBNZ = Chlorobenzene (Surr)

OTP = o- terphenyl (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-30234/7
Matrix: Solid
Analysis Batch: 30234

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		5.0	0.40	ug/Kg			08/08/20 11:37	1
1,3,5-Trimethylbenzene	ND		5.0	0.50	ug/Kg			08/08/20 11:37	1
Toluene	ND		5.0	0.60	ug/Kg			08/08/20 11:37	1
Methyl tertiary butyl ether	ND		5.0	0.50	ug/Kg			08/08/20 11:37	1
Benzene	ND		5.0	0.50	ug/Kg			08/08/20 11:37	1
Naphthalene	ND		5.0	2.0	ug/Kg			08/08/20 11:37	1
1,2,4-Trimethylbenzene	ND		5.0	0.50	ug/Kg			08/08/20 11:37	1
Isopropylbenzene	ND		5.0	0.40	ug/Kg			08/08/20 11:37	1
1,2-Dibromoethane	ND		5.0	0.40	ug/Kg			08/08/20 11:37	1
1,2-Dichloroethane	ND		5.0	0.60	ug/Kg			08/08/20 11:37	1
C4-C12-TPH-GRO	ND		110	44	ug/Kg			08/08/20 11:37	1
Xylenes, Total	ND		10	1.4	ug/Kg			08/08/20 11:37	1
t-Butyl alcohol	ND		100	15	ug/Kg			08/08/20 11:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*54 - 135*		*08/08/20 11:37*	*1*
4-Bromofluorobenzene (Surr)	*93*		*50 - 131*		*08/08/20 11:37*	*1*
Dibromofluoromethane (Surr)	*96*		*50 - 141*		*08/08/20 11:37*	*1*
Toluene-d8 (Surr)	*102*		*52 - 141*		*08/08/20 11:37*	*1*

Lab Sample ID: LCS 410-30234/11
Matrix: Solid
Analysis Batch: 30234

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C4-C12-TPH-GRO	1000	880		ug/Kg		88	75 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*54 - 135*
4-Bromofluorobenzene (Surr)	*96*		*50 - 131*
Dibromofluoromethane (Surr)	*94*		*50 - 141*
Toluene-d8 (Surr)	*104*		*52 - 141*

Lab Sample ID: LCS 410-30234/4
Matrix: Solid
Analysis Batch: 30234

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	20.0	16.7		ug/Kg		83	78 - 120
1,3,5-Trimethylbenzene	20.0	15.4		ug/Kg		77	73 - 120
Toluene	20.0	18.5		ug/Kg		92	80 - 120
Methyl tertiary butyl ether	20.0	16.3		ug/Kg		81	72 - 120
Benzene	20.0	18.4		ug/Kg		92	80 - 120
Naphthalene	20.0	15.2		ug/Kg		76	48 - 130
1,2,4-Trimethylbenzene	20.0	15.8		ug/Kg		79	73 - 120
Isopropylbenzene	20.0	15.8		ug/Kg		79	77 - 120
1,2-Dibromoethane	20.0	18.3		ug/Kg		92	76 - 120
1,2-Dichloroethane	20.0	17.7		ug/Kg		88	71 - 128

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-30234/4
Matrix: Solid
Analysis Batch: 30234

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Xylenes, Total			60.0	52.6		ug/Kg		88	75 - 120		
t-Butyl alcohol			200	210		ug/Kg		105	74 - 121		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*54 - 135*
4-Bromofluorobenzene (Surr)	*97*		*50 - 131*
Dibromofluoromethane (Surr)	*97*		*50 - 141*
Toluene-d8 (Surr)	*103*		*52 - 141*

Lab Sample ID: LCSD 410-30234/12
Matrix: Solid
Analysis Batch: 30234

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C4-C12-TPH-GRO			1000	857		ug/Kg		86	75 - 120	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*54 - 135*
4-Bromofluorobenzene (Surr)	*96*		*50 - 131*
Dibromofluoromethane (Surr)	*93*		*50 - 141*
Toluene-d8 (Surr)	*104*		*52 - 141*

Lab Sample ID: LCSD 410-30234/5
Matrix: Solid
Analysis Batch: 30234

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene			20.0	17.6		ug/Kg		88	78 - 120	5	30
1,3,5-Trimethylbenzene			20.0	17.2		ug/Kg		86	73 - 120	11	30
Toluene			20.0	18.8		ug/Kg		94	80 - 120	1	30
Methyl tertiary butyl ether			20.0	15.8		ug/Kg		79	72 - 120	3	30
Benzene			20.0	18.5		ug/Kg		93	80 - 120	1	30
Naphthalene			20.0	15.3		ug/Kg		76	48 - 130	0	30
1,2,4-Trimethylbenzene			20.0	17.4		ug/Kg		87	73 - 120	10	30
Isopropylbenzene			20.0	17.4		ug/Kg		87	77 - 120	10	30
1,2-Dibromoethane			20.0	17.4		ug/Kg		87	76 - 120	5	30
1,2-Dichloroethane			20.0	17.6		ug/Kg		88	71 - 128	0	30
Xylenes, Total			60.0	55.3		ug/Kg		92	75 - 120	5	30
t-Butyl alcohol			200	211		ug/Kg		105	74 - 121	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*54 - 135*
4-Bromofluorobenzene (Surr)	*97*		*50 - 131*
Dibromofluoromethane (Surr)	*97*		*50 - 141*
Toluene-d8 (Surr)	*104*		*52 - 141*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-34149/6
Matrix: Water
Analysis Batch: 34149

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			08/17/20 23:05	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			08/17/20 23:05	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			08/17/20 23:05	1
Benzene	ND		1.0	0.20	ug/L			08/17/20 23:05	1
Ethylbenzene	ND		1.0	0.40	ug/L			08/17/20 23:05	1
Isopropylbenzene	ND		5.0	0.20	ug/L			08/17/20 23:05	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			08/17/20 23:05	1
Toluene	ND		1.0	0.20	ug/L			08/17/20 23:05	1
Xylenes, Total	ND		6.0	1.4	ug/L			08/17/20 23:05	1
2-Methyl-2-propanol	ND		50	12	ug/L			08/17/20 23:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*80 - 120*		*08/17/20 23:05*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*08/17/20 23:05*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*08/17/20 23:05*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*08/17/20 23:05*	*1*

Lab Sample ID: LCS 410-34149/4
Matrix: Water
Analysis Batch: 34149

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2,4-Trimethylbenzene			20.0	17.3		ug/L		86	75 - 120		
1,2-Dichloroethane			20.0	16.8		ug/L		84	73 - 124		
1,3,5-Trimethylbenzene			20.0	16.8		ug/L		84	75 - 120		
Benzene			20.0	18.3		ug/L		92	80 - 120		
Ethylbenzene			20.0	17.8		ug/L		89	80 - 120		
Isopropylbenzene			20.0	17.3		ug/L		86	80 - 120		
Methyl tertiary butyl ether			20.0	17.5		ug/L		88	69 - 122		
Naphthalene			20.0	15.5		ug/L		77	53 - 124		
Toluene			20.0	18.1		ug/L		91	80 - 120		
Xylenes, Total			60.0	54.2		ug/L		90	80 - 120		
2-Methyl-2-propanol			200	171		ug/L		85	60 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*80 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*

Lab Sample ID: LCSD 410-34149/5
Matrix: Water
Analysis Batch: 34149

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene			20.0	16.9		ug/L		84	75 - 120	2	30
1,2-Dichloroethane			20.0	16.8		ug/L		84	73 - 124	0	30
1,3,5-Trimethylbenzene			20.0	16.8		ug/L		84	75 - 120	0	30

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-34149/5
Matrix: Water
Analysis Batch: 34149

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			20.0	18.2		ug/L		91	80 - 120	0	30
Ethylbenzene			20.0	17.8		ug/L		89	80 - 120	0	30
Isopropylbenzene			20.0	17.4		ug/L		87	80 - 120	1	30
Methyl tertiary butyl ether			20.0	17.7		ug/L		88	69 - 122	1	30
Naphthalene			20.0	15.0		ug/L		75	53 - 124	3	30
Toluene			20.0	18.2		ug/L		91	80 - 120	0	30
Xylenes, Total			60.0	54.7		ug/L		91	80 - 120	1	30
2-Methyl-2-propanol			200	170		ug/L		85	60 - 130	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Lab Sample ID: MB 410-35054/6
Matrix: Water
Analysis Batch: 35054

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			08/19/20 20:56	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			08/19/20 20:56	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			08/19/20 20:56	1
Benzene	ND		1.0	0.20	ug/L			08/19/20 20:56	1
Ethylbenzene	ND		1.0	0.40	ug/L			08/19/20 20:56	1
Isopropylbenzene	ND		5.0	0.20	ug/L			08/19/20 20:56	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			08/19/20 20:56	1
Toluene	ND		1.0	0.20	ug/L			08/19/20 20:56	1
Xylenes, Total	ND		6.0	1.4	ug/L			08/19/20 20:56	1
2-Methyl-2-propanol	ND		50	12	ug/L			08/19/20 20:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*89*		*80 - 120*		*08/19/20 20:56*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*08/19/20 20:56*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*08/19/20 20:56*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*08/19/20 20:56*	*1*

Lab Sample ID: LCS 410-35054/4
Matrix: Water
Analysis Batch: 35054

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene			20.0	17.4		ug/L		87	75 - 120
1,2-Dichloroethane			20.0	16.8		ug/L		84	73 - 124
1,3,5-Trimethylbenzene			20.0	17.1		ug/L		86	75 - 120
Benzene			20.0	18.5		ug/L		92	80 - 120
Ethylbenzene			20.0	18.1		ug/L		90	80 - 120
Isopropylbenzene			20.0	17.6		ug/L		88	80 - 120

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-35054/4
Matrix: Water
Analysis Batch: 35054

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Methyl tertiary butyl ether			20.0	18.1		ug/L		90	69 - 122		
Naphthalene			20.0	15.6		ug/L		78	53 - 124		
Toluene			20.0	18.6		ug/L		93	80 - 120		
Xylenes, Total			60.0	55.7		ug/L		93	80 - 120		
2-Methyl-2-propanol			200	175		ug/L		87	60 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Lab Sample ID: LCSD 410-35054/5
Matrix: Water
Analysis Batch: 35054

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene			20.0	17.0		ug/L		85	75 - 120	2	30
1,2-Dichloroethane			20.0	16.5		ug/L		82	73 - 124	2	30
1,3,5-Trimethylbenzene			20.0	16.6		ug/L		83	75 - 120	3	30
Benzene			20.0	17.9		ug/L		90	80 - 120	3	30
Ethylbenzene			20.0	17.6		ug/L		88	80 - 120	3	30
Isopropylbenzene			20.0	17.2		ug/L		86	80 - 120	2	30
Methyl tertiary butyl ether			20.0	17.3		ug/L		87	69 - 122	4	30
Naphthalene			20.0	15.2		ug/L		76	53 - 124	3	30
Toluene			20.0	18.1		ug/L		91	80 - 120	3	30
Xylenes, Total			60.0	53.7		ug/L		90	80 - 120	4	30
2-Methyl-2-propanol			200	170		ug/L		85	60 - 130	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*80 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-31966/1-A
Matrix: Water
Analysis Batch: 32192

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 31966

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		08/11/20 18:55	08/12/20 10:38	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		08/11/20 18:55	08/12/20 10:38	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		08/11/20 18:55	08/12/20 10:38	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		08/11/20 18:55	08/12/20 10:38	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		08/11/20 18:55	08/12/20 10:38	1
Chrysene	ND		0.50	0.10	ug/L		08/11/20 18:55	08/12/20 10:38	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-31966/1-A
Matrix: Water
Analysis Batch: 32192

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 31966

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	ND		0.50	0.10	ug/L		08/11/20 18:55	08/12/20 10:38	1
Naphthalene	ND		0.50	0.10	ug/L		08/11/20 18:55	08/12/20 10:38	1
Phenanthrene	ND		0.50	0.10	ug/L		08/11/20 18:55	08/12/20 10:38	1
Pyrene	ND		0.50	0.10	ug/L		08/11/20 18:55	08/12/20 10:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*72*		*44 - 102*	*08/11/20 18:55*	*08/12/20 10:38*	*1*
Nitrobenzene-d5 (Surr)	*85*		*38 - 113*	*08/11/20 18:55*	*08/12/20 10:38*	*1*
p-Terphenyl-d14 (Surr)	*87*		*34 - 128*	*08/11/20 18:55*	*08/12/20 10:38*	*1*

Lab Sample ID: LCS 410-31966/2-A
Matrix: Water
Analysis Batch: 32192

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31966

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.1	42.1		ug/L		84	67 - 116
Benzo[a]anthracene	50.0	49.7		ug/L		99	68 - 123
Benzo[a]pyrene	50.2	45.8		ug/L		91	71 - 117
Benzo[b]fluoranthene	50.1	47.0		ug/L		94	69 - 121
Benzo[g,h,i]perylene	50.1	47.5		ug/L		95	60 - 119
Chrysene	50.0	47.1		ug/L		94	65 - 121
Fluorene	50.1	39.8		ug/L		79	56 - 115
Naphthalene	50.4	34.9		ug/L		69	51 - 102
Phenanthrene	50.2	44.2		ug/L		88	65 - 113
Pyrene	50.4	42.0		ug/L		83	65 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*70*		*44 - 102*
Nitrobenzene-d5 (Surr)	*82*		*38 - 113*
p-Terphenyl-d14 (Surr)	*81*		*34 - 128*

Lab Sample ID: MB 410-34278/1-A
Matrix: Solid
Analysis Batch: 36170

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 34278

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		17	3.3	ug/Kg		08/18/20 09:00	08/22/20 22:55	1
Benzo[a]anthracene	ND		17	6.7	ug/Kg		08/18/20 09:00	08/22/20 22:55	1
Benzo[a]pyrene	ND		17	3.3	ug/Kg		08/18/20 09:00	08/22/20 22:55	1
Benzo[b]fluoranthene	ND		17	3.3	ug/Kg		08/18/20 09:00	08/22/20 22:55	1
Benzo[g,h,i]perylene	ND		17	3.3	ug/Kg		08/18/20 09:00	08/22/20 22:55	1
Chrysene	ND		17	3.3	ug/Kg		08/18/20 09:00	08/22/20 22:55	1
Fluorene	ND		17	3.3	ug/Kg		08/18/20 09:00	08/22/20 22:55	1
Naphthalene	ND		17	6.7	ug/Kg		08/18/20 09:00	08/22/20 22:55	1
Phenanthrene	ND		17	3.3	ug/Kg		08/18/20 09:00	08/22/20 22:55	1
Pyrene	ND		17	3.3	ug/Kg		08/18/20 09:00	08/22/20 22:55	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-34278/1-A
Matrix: Solid
Analysis Batch: 36170

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 34278

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	80		34 - 117	08/18/20 09:00	08/22/20 22:55	1
Nitrobenzene-d5 (Surr)	76		23 - 115	08/18/20 09:00	08/22/20 22:55	1
p-Terphenyl-d14 (Surr)	99		35 - 135	08/18/20 09:00	08/22/20 22:55	1

Lab Sample ID: LCS 410-34278/2-A
Matrix: Solid
Analysis Batch: 36170

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 34278

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	1670	1510		ug/Kg		90	67 - 120
Benzo[a]anthracene	1670	1520		ug/Kg		91	68 - 120
Benzo[a]pyrene	1670	1550		ug/Kg		93	68 - 119
Benzo[b]fluoranthene	1670	1620		ug/Kg		97	67 - 125
Benzo[g,h,i]perylene	1670	1520		ug/Kg		91	68 - 125
Chrysene	1670	1380		ug/Kg		83	66 - 111
Fluorene	1670	1490		ug/Kg		89	62 - 110
Naphthalene	1680	1370		ug/Kg		81	49 - 104
Phenanthrene	1670	1520		ug/Kg		91	67 - 116
Pyrene	1680	1430		ug/Kg		85	67 - 109

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	80		34 - 117
Nitrobenzene-d5 (Surr)	74		23 - 115
p-Terphenyl-d14 (Surr)	88		35 - 135

Lab Sample ID: 410-9875-2 MS
Matrix: Solid
Analysis Batch: 36279

Client Sample ID: CD-01-S-10-20200805
Prep Type: Total/NA
Prep Batch: 34278

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	1700	FL	1870	2210	FL	ug/Kg	☼	29	67 - 120
Benzo[a]anthracene	1900	FL	1860	2880	FL	ug/Kg	☼	51	68 - 120
Benzo[a]pyrene	1600	FL	1870	2680	FL	ug/Kg	☼	57	68 - 119
Benzo[b]fluoranthene	1800	FL	1870	2800	FL	ug/Kg	☼	53	67 - 125
Benzo[g,h,i]perylene	850	FL	1860	2210		ug/Kg	☼	73	68 - 125
Chrysene	1700	FL	1860	2540	FL	ug/Kg	☼	45	66 - 111
Fluorene	1200	FL	1870	1870	FL	ug/Kg	☼	38	62 - 110
Naphthalene	60		1870	1550		ug/Kg	☼	80	49 - 104
Phenanthrene	6200	E FL	1870	3300	FL	ug/Kg	☼	-155	67 - 116
Pyrene	3700	FL	1880	3210	FL	ug/Kg	☼	-26	67 - 109

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl (Surr)	78		34 - 117
Nitrobenzene-d5 (Surr)	73		23 - 115
p-Terphenyl-d14 (Surr)	87		35 - 135

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 410-9875-2 MSD
Matrix: Solid
Analysis Batch: 36279

Client Sample ID: CD-01-S-10-20200805
Prep Type: Total/NA
Prep Batch: 34278

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Anthracene	1700	FL	1870	2270	FL	ug/Kg	☼	32	67 - 120	3	30
Benzo[a]anthracene	1900	FL	1870	2770	FL	ug/Kg	☼	46	68 - 120	4	30
Benzo[a]pyrene	1600	FL	1870	2580	FL	ug/Kg	☼	52	68 - 119	4	30
Benzo[b]fluoranthene	1800	FL	1870	2800	FL	ug/Kg	☼	53	67 - 125	0	30
Benzo[g,h,i]perylene	850	FL	1870	2080	FL	ug/Kg	☼	66	68 - 125	6	30
Chrysene	1700	FL	1870	2400	FL	ug/Kg	☼	37	66 - 111	6	30
Fluorene	1200	FL	1870	1930	FL	ug/Kg	☼	41	62 - 110	3	30
Naphthalene	60		1880	1640		ug/Kg	☼	84	49 - 104	6	30
Phenanthrene	6200	E FL	1870	3570	FL	ug/Kg	☼	-139	67 - 116	8	30
Pyrene	3700	FL	1880	3360	FL	ug/Kg	☼	-18	67 - 109	5	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*79*		*34 - 117*
Nitrobenzene-d5 (Surr)	*81*		*23 - 115*
p-Terphenyl-d14 (Surr)	*77*		*35 - 135*

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 410-34093/4
Matrix: Water
Analysis Batch: 34093

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C12 (1C)	ND		50	14	ug/L			08/19/20 12:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (fid) (1C)	*86*		*63 - 135*		*08/19/20 12:43*	*1*

Lab Sample ID: LCS 410-34093/5
Matrix: Water
Analysis Batch: 34093

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C5-C12 (1C)			1100	1060		ug/L		97	66 - 128		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene (fid) (1C)	*85*		*63 - 135*

Lab Sample ID: LCSD 410-34093/6
Matrix: Water
Analysis Batch: 34093

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C5-C12 (1C)			1100	1060		ug/L		96	66 - 128	0	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene (fid) (1C)	*81*		*63 - 135*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-30733/1-A
Matrix: Water
Analysis Batch: 30697

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 30733

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		08/07/20 09:13	08/07/20 09:18	1
Ethene (1C)	ND		5.0	1.0	ug/L		08/07/20 09:13	08/07/20 09:18	1
Methane (1C)	ND		5.0	3.0	ug/L		08/07/20 09:13	08/07/20 09:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*93*		*28 - 140*	*08/07/20 09:13*	*08/07/20 09:18*	*1*

Lab Sample ID: LCS 410-30733/2-A
Matrix: Water
Analysis Batch: 30697

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 30733

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	53.8		ug/L		91	85 - 115		
Ethene (1C)			60.4	56.0		ug/L		93	83 - 115		
Methane (1C)			59.4	57.1		ug/L		96	85 - 115		

Surrogate			*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)			*92*		*28 - 140*

Lab Sample ID: LCSD 410-30733/3-A
Matrix: Water
Analysis Batch: 30697

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 30733

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	55.0		ug/L		93	85 - 115	2	20
Ethene (1C)			60.4	57.2		ug/L		95	83 - 115	2	20
Methane (1C)			59.4	59.4		ug/L		100	85 - 115	4	20

Surrogate			*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)			*95*		*28 - 140*

Lab Sample ID: MB 410-31787/1-A
Matrix: Water
Analysis Batch: 31793

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 31787

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		08/11/20 09:19	08/11/20 09:41	1
Ethene (1C)	ND		5.0	1.0	ug/L		08/11/20 09:19	08/11/20 09:41	1
Methane (1C)	ND		5.0	3.0	ug/L		08/11/20 09:19	08/11/20 09:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*93*		*28 - 140*	*08/11/20 09:19*	*08/11/20 09:41*	*1*

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCS 410-31787/2-A
Matrix: Water
Analysis Batch: 31793

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31787

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	54.5		ug/L		92	85 - 115		
Ethene (1C)			60.4	56.8		ug/L		94	83 - 115		
Methane (1C)			59.4	57.7		ug/L		97	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*95*		*28 - 140*

Lab Sample ID: LCSD 410-31787/3-A
Matrix: Water
Analysis Batch: 31793

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 31787

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	54.7		ug/L		92	85 - 115	0	20
Ethene (1C)			60.4	56.8		ug/L		94	83 - 115	0	20
Methane (1C)			59.4	58.9		ug/L		99	85 - 115	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*92*		*28 - 140*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-33073/1-A
Matrix: Water
Analysis Batch: 33381

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 33073

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		08/13/20 23:24	08/14/20 18:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*37*	*XL*	*46 - 136*	*08/13/20 23:24*	*08/14/20 18:05*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*42*	*XL*	*46 - 136*	*08/13/20 23:24*	*08/14/20 18:05*	*1*

Lab Sample ID: LCS 410-33073/2-A
Matrix: Water
Analysis Batch: 33381

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 33073

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.178		ug/L		139	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*52*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*53*		*46 - 136*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: LCSD 410-33073/3-A
Matrix: Water
Analysis Batch: 33381

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 33073

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.169		ug/L		132	60 - 140	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*48*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*47*		*46 - 136*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 410-32109/1-A
Matrix: Water
Analysis Batch: 32811

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32109

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		0.10	0.037	mg/L		08/11/20 22:14	08/12/20 15:34	1
>C22-C44 (1C)	ND		0.10	0.037	mg/L		08/11/20 22:14	08/12/20 15:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*72*		*21 - 116*	*08/11/20 22:14*	*08/12/20 15:34*	*1*
o- terphenyl (Surr) (1C)	*87*		*51 - 126*	*08/11/20 22:14*	*08/12/20 15:34*	*1*

Lab Sample ID: LCS 410-32109/2-A
Matrix: Water
Analysis Batch: 32811

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32109

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
DRO (C10-C28) (1C)			0.800	0.699		mg/L		87	48 - 116		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Chlorobenzene (Surr) (1C)	*76*		*21 - 116*
o- terphenyl (Surr) (1C)	*102*		*51 - 126*

Lab Sample ID: LCSD 410-32109/3-A
Matrix: Water
Analysis Batch: 32811

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32109

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (C10-C28) (1C)			0.800	0.712		mg/L		89	48 - 116	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Chlorobenzene (Surr) (1C)	*82*		*21 - 116*
o- terphenyl (Surr) (1C)	*104*		*51 - 126*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: MB 410-34318/1-A
Matrix: Solid
Analysis Batch: 35403

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 34318

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		12	5.0	mg/Kg		08/18/20 09:00	08/20/20 18:06	1
>C22-C44 (1C)	ND		12	5.0	mg/Kg		08/18/20 09:00	08/20/20 18:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*81*		*54 - 137*	*08/18/20 09:00*	*08/20/20 18:06*	*1*
o- terphenyl (Surr) (1C)	*102*		*42 - 143*	*08/18/20 09:00*	*08/20/20 18:06*	*1*

Lab Sample ID: LCS 410-34318/2-A
Matrix: Solid
Analysis Batch: 35403

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 34318

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (C10-C28) (1C)	133	112		mg/Kg		84	76 - 117

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Chlorobenzene (Surr) (1C)	*79*		*54 - 137*
o- terphenyl (Surr) (1C)	*108*		*42 - 143*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Lab Sample ID: MB 410-30719/4
Matrix: Water
Analysis Batch: 30719

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND		0.10	0.050	mg/L			08/07/20 07:58	1

Lab Sample ID: LCS 410-30719/3
Matrix: Water
Analysis Batch: 30719

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Nitrate	0.750	0.699		mg/L		93	90 - 110

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 410-30720/4
Matrix: Water
Analysis Batch: 30720

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1.0	0.30	mg/L			08/07/20 07:58	1
Chloride	ND		0.40	0.20	mg/L			08/07/20 07:58	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 410-30720/3
Matrix: Water
Analysis Batch: 30720

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	7.50	7.32		mg/L		98	90 - 110
Chloride	3.00	2.89		mg/L		96	90 - 110

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-31161/1-A
Matrix: Solid
Analysis Batch: 31820

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 31161

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5	0.59	mg/Kg		08/10/20 04:59	08/11/20 08:47	1

Lab Sample ID: LCS 410-31161/2-A
Matrix: Solid
Analysis Batch: 31820

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31161

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	2.97	3.09		mg/Kg		104	80 - 120

Lab Sample ID: MB 410-31144/1-A
Matrix: Water
Analysis Batch: 32944

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 31144

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.21	0.099	mg/L		08/10/20 02:46	08/13/20 12:01	1
Iron	ND		0.21	0.041	mg/L		08/10/20 02:46	08/13/20 12:01	1
Magnesium	ND		0.10	0.041	mg/L		08/10/20 02:46	08/13/20 12:01	1
Potassium	ND		0.52	0.21	mg/L		08/10/20 02:46	08/13/20 12:01	1
Sodium	ND		1.0	0.25	mg/L		08/10/20 02:46	08/13/20 12:01	1

Lab Sample ID: LCS 410-31144/2-A
Matrix: Water
Analysis Batch: 32944

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 31144

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	0.400	0.444		mg/L		111	80 - 120
Iron	0.402	0.433		mg/L		108	80 - 120
Magnesium	0.200	0.210		mg/L		105	80 - 120
Potassium	5.60	5.64		mg/L		101	80 - 120
Sodium	2.00	2.05		mg/L		103	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 410-32464/1-A
Matrix: Water
Analysis Batch: 33698

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32464

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		08/12/20 15:39	08/14/20 15:09	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 410-32464/2-A
Matrix: Water
Analysis Batch: 33698

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32464

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	4.92	5.02		ug/L		102	90 - 115

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 410-31460/15
Matrix: Water
Analysis Batch: 31460

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8.0	8.0	mg/L			08/07/20 19:44	1

Lab Sample ID: LCS 410-31460/17
Matrix: Water
Analysis Batch: 31460

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	189	169		mg/L		89	82 - 106

Method: 4500 NH3 C-2011 - Ammonia

Lab Sample ID: MB 410-31319/1-A
Matrix: Water
Analysis Batch: 31369

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 31319

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia-N	ND		0.75	0.25	mg/L		08/10/20 10:14	08/10/20 11:14	1

Lab Sample ID: LCS 410-31319/2-A
Matrix: Water
Analysis Batch: 31369

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31319

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia-N	500	475		mg/L		95	93 - 100

Method: 4500 S2 D-2011 - Sulfide, Total

Lab Sample ID: MB 410-31011/1
Matrix: Water
Analysis Batch: 31011

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.30	0.10	mg/L			08/08/20 11:29	1

Lab Sample ID: LCS 410-31011/13
Matrix: Water
Analysis Batch: 31011

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	1.00	1.01		mg/L		101	90 - 110

GC/MS VOA

Analysis Batch: 30234

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-2	CD-01-S-10-20200805	Total/NA	Solid	8260C	30595
MB 410-30234/7	Method Blank	Total/NA	Solid	8260C	
LCS 410-30234/11	Lab Control Sample	Total/NA	Solid	8260C	
LCS 410-30234/4	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 410-30234/12	Lab Control Sample Dup	Total/NA	Solid	8260C	
LCSD 410-30234/5	Lab Control Sample Dup	Total/NA	Solid	8260C	

Prep Batch: 30595

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-2	CD-01-S-10-20200805	Total/NA	Solid	5035	

Analysis Batch: 34149

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-1	CD-01-W-18-20200805	Total/NA	Water	8260C/UST	
410-9875-3	Trip Blank	Total/NA	Water	8260C/UST	
MB 410-34149/6	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-34149/4	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-34149/5	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

Analysis Batch: 35054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-1 - DL	CD-01-W-18-20200805	Total/NA	Water	8260C/UST	
MB 410-35054/6	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-35054/4	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-35054/5	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

GC/MS Semi VOA

Prep Batch: 31966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-1	CD-01-W-18-20200805	Total/NA	Water	3510C	
410-9875-1 - DL	CD-01-W-18-20200805	Total/NA	Water	3510C	
MB 410-31966/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-31966/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 32192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-1	CD-01-W-18-20200805	Total/NA	Water	8270D	31966
MB 410-31966/1-A	Method Blank	Total/NA	Water	8270D	31966
LCS 410-31966/2-A	Lab Control Sample	Total/NA	Water	8270D	31966

Analysis Batch: 32698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-1 - DL	CD-01-W-18-20200805	Total/NA	Water	8270D	31966

Prep Batch: 34278

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-2	CD-01-S-10-20200805	Total/NA	Solid	3546	
410-9875-2 - DL	CD-01-S-10-20200805	Total/NA	Solid	3546	
MB 410-34278/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-34278/2-A	Lab Control Sample	Total/NA	Solid	3546	

GC/MS Semi VOA (Continued)

Prep Batch: 34278 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-2 MS	CD-01-S-10-20200805	Total/NA	Solid	3546	
410-9875-2 MSD	CD-01-S-10-20200805	Total/NA	Solid	3546	

Analysis Batch: 36170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-34278/1-A	Method Blank	Total/NA	Solid	8270D	34278
LCS 410-34278/2-A	Lab Control Sample	Total/NA	Solid	8270D	34278

Analysis Batch: 36279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-2	CD-01-S-10-20200805	Total/NA	Solid	8270D	34278
410-9875-2 MS	CD-01-S-10-20200805	Total/NA	Solid	8270D	34278
410-9875-2 MSD	CD-01-S-10-20200805	Total/NA	Solid	8270D	34278

Analysis Batch: 36476

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-2 - DL	CD-01-S-10-20200805	Total/NA	Solid	8270D	34278

GC VOA

Analysis Batch: 30697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-1	CD-01-W-18-20200805	Total/NA	Water	RSK-175	30733
MB 410-30733/1-A	Method Blank	Total/NA	Water	RSK-175	30733
LCS 410-30733/2-A	Lab Control Sample	Total/NA	Water	RSK-175	30733
LCSD 410-30733/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	30733

Prep Batch: 30733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-1	CD-01-W-18-20200805	Total/NA	Water	RSK-175	
MB 410-30733/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-30733/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-30733/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Prep Batch: 31787

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-1 - DL	CD-01-W-18-20200805	Total/NA	Water	RSK-175	
MB 410-31787/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-31787/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-31787/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 31793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-1 - DL	CD-01-W-18-20200805	Total/NA	Water	RSK-175	31787
MB 410-31787/1-A	Method Blank	Total/NA	Water	RSK-175	31787
LCS 410-31787/2-A	Lab Control Sample	Total/NA	Water	RSK-175	31787
LCSD 410-31787/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	31787

Analysis Batch: 34093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-1	CD-01-W-18-20200805	Total/NA	Water	8015D	

GC VOA (Continued)

Analysis Batch: 34093 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-3	Trip Blank	Total/NA	Water	8015D	
MB 410-34093/4	Method Blank	Total/NA	Water	8015D	
LCS 410-34093/5	Lab Control Sample	Total/NA	Water	8015D	
LCSD 410-34093/6	Lab Control Sample Dup	Total/NA	Water	8015D	

GC Semi VOA

Prep Batch: 32109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-1	CD-01-W-18-20200805	Total/NA	Water	3510C	
MB 410-32109/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-32109/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-32109/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 32811

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-1	CD-01-W-18-20200805	Total/NA	Water	8015C	32109
MB 410-32109/1-A	Method Blank	Total/NA	Water	8015C	32109
LCS 410-32109/2-A	Lab Control Sample	Total/NA	Water	8015C	32109
LCSD 410-32109/3-A	Lab Control Sample Dup	Total/NA	Water	8015C	32109

Prep Batch: 33073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-1	CD-01-W-18-20200805	Total/NA	Water	8011	
410-9875-3	Trip Blank	Total/NA	Water	8011	
MB 410-33073/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-33073/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-33073/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 33381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-1	CD-01-W-18-20200805	Total/NA	Water	8011	33073
410-9875-3	Trip Blank	Total/NA	Water	8011	33073
MB 410-33073/1-A	Method Blank	Total/NA	Water	8011	33073
LCS 410-33073/2-A	Lab Control Sample	Total/NA	Water	8011	33073
LCSD 410-33073/3-A	Lab Control Sample Dup	Total/NA	Water	8011	33073

Prep Batch: 34318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-2	CD-01-S-10-20200805	Total/NA	Solid	3546	
MB 410-34318/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-34318/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 35403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-2	CD-01-S-10-20200805	Total/NA	Solid	8015C	34318
MB 410-34318/1-A	Method Blank	Total/NA	Solid	8015C	34318
LCS 410-34318/2-A	Lab Control Sample	Total/NA	Solid	8015C	34318

HPLC/IC

Analysis Batch: 30719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-1	CD-01-W-18-20200805	Total/NA	Water	EPA 300.0 R2.1	
MB 410-30719/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-30719/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 30720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-1	CD-01-W-18-20200805	Total/NA	Water	EPA 300.0 R2.1	
MB 410-30720/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-30720/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 31144

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-1	CD-01-W-18-20200805	Total Recoverable	Water	3005A	
MB 410-31144/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-31144/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 31161

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-2	CD-01-S-10-20200805	Total/NA	Solid	3050B	
MB 410-31161/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 410-31161/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 31820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-2	CD-01-S-10-20200805	Total/NA	Solid	6010C	31161
MB 410-31161/1-A	Method Blank	Total/NA	Solid	6010C	31161
LCS 410-31161/2-A	Lab Control Sample	Total/NA	Solid	6010C	31161

Filtration Batch: 32447

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-1	CD-01-W-18-20200805	Dissolved	Water	Filtration	

Prep Batch: 32464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-1	CD-01-W-18-20200805	Dissolved	Water	Non-Digest Prep	32447
MB 410-32464/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-32464/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	

Analysis Batch: 32944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-1	CD-01-W-18-20200805	Total Recoverable	Water	6010C	31144
MB 410-31144/1-A	Method Blank	Total Recoverable	Water	6010C	31144
LCS 410-31144/2-A	Lab Control Sample	Total Recoverable	Water	6010C	31144

Analysis Batch: 33698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-1	CD-01-W-18-20200805	Dissolved	Water	6020A	32464
MB 410-32464/1-A	Method Blank	Total/NA	Water	6020A	32464
LCS 410-32464/2-A	Lab Control Sample	Total/NA	Water	6020A	32464

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: AOI 4 Penrose Drilling

Job ID: 410-9875-1

General Chemistry

Analysis Batch: 30559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-2	CD-01-S-10-20200805	Total/NA	Solid	Moisture	

Analysis Batch: 31011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-1	CD-01-W-18-20200805	Total/NA	Water	4500 S2 D-2011	
MB 410-31011/1	Method Blank	Total/NA	Water	4500 S2 D-2011	
LCS 410-31011/13	Lab Control Sample	Total/NA	Water	4500 S2 D-2011	

Prep Batch: 31319

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-1	CD-01-W-18-20200805	Total/NA	Water	4500 NH3 B-2011	
MB 410-31319/1-A	Method Blank	Total/NA	Water	4500 NH3 B-2011	
LCS 410-31319/2-A	Lab Control Sample	Total/NA	Water	4500 NH3 B-2011	

Analysis Batch: 31369

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-1	CD-01-W-18-20200805	Total/NA	Water	4500 NH3 C-2011	31319
MB 410-31319/1-A	Method Blank	Total/NA	Water	4500 NH3 C-2011	31319
LCS 410-31319/2-A	Lab Control Sample	Total/NA	Water	4500 NH3 C-2011	31319

Analysis Batch: 31460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9875-1	CD-01-W-18-20200805	Total/NA	Water	2320B-2011	
MB 410-31460/15	Method Blank	Total/NA	Water	2320B-2011	
LCS 410-31460/17	Lab Control Sample	Total/NA	Water	2320B-2011	

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: AOI 4 Penrose Drilling

Job ID: 410-9875-1

Client Sample ID: CD-01-W-18-20200805

Lab Sample ID: 410-9875-1

Date Collected: 08/05/20 16:00
Matrix: Water
Date Received: 08/06/20 16:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	34149	08/18/20 07:01	USEJ	ELLE
Total/NA	Analysis	8260C/UST	DL	10	35054	08/19/20 21:20	USEJ	ELLE
Total/NA	Prep	3510C			31966	08/11/20 18:55	QQ3P	ELLE
Total/NA	Analysis	8270D		1	32192	08/12/20 15:32	LW6J	ELLE
Total/NA	Prep	3510C	DL		31966	08/11/20 18:55	QQ3P	ELLE
Total/NA	Analysis	8270D	DL	5	32698	08/13/20 14:55	LW6J	ELLE
Total/NA	Analysis	8015D		20	34093	08/19/20 15:55	UMDJ	ELLE
Total/NA	Prep	RSK-175			30733	08/07/20 09:13	IYN5	ELLE
Total/NA	Analysis	RSK-175		1	30697	08/07/20 11:00	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		31787	08/11/20 09:19	IYN5	ELLE
Total/NA	Analysis	RSK-175	DL	100	31793	08/11/20 15:02	IYN5	ELLE
Total/NA	Prep	8011			33073	08/13/20 23:24	K2IL	ELLE
Total/NA	Analysis	8011		1	33381	08/15/20 00:03	AC3T	ELLE
Total/NA	Prep	3510C			32109	08/11/20 22:14	K2IL	ELLE
Total/NA	Analysis	8015C		1	32811	08/12/20 16:37	KP5X	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	30719	08/07/20 08:50	GJ35	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	30720	08/07/20 08:50	GJ35	ELLE
Total Recoverable	Prep	3005A			31144	08/10/20 02:46	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	32944	08/13/20 13:24	LR7D	ELLE
Dissolved	Filtration	Filtration			32447	08/12/20 14:30	UJLA	ELLE
Dissolved	Prep	Non-Digest Prep			32464	08/12/20 15:39	UJLA	ELLE
Dissolved	Analysis	6020A		1	33698	08/14/20 15:26	V5SW	ELLE
Total/NA	Analysis	2320B-2011		1	31460	08/07/20 21:15	JB	ELLE
Total/NA	Prep	4500 NH3 B-2011			31319	08/10/20 10:14	P8DZ	ELLE
Total/NA	Analysis	4500 NH3 C-2011		1	31369	08/10/20 11:14	P8DZ	ELLE
Total/NA	Analysis	4500 S2 D-2011		1	31011	08/08/20 11:29	P8DZ	ELLE

Client Sample ID: CD-01-S-10-20200805

Lab Sample ID: 410-9875-2

Date Collected: 08/05/20 13:10
Matrix: Solid
Date Received: 08/06/20 16:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	30559	08/06/20 19:43	OEL4	ELLE

Client Sample ID: CD-01-S-10-20200805

Lab Sample ID: 410-9875-2

Date Collected: 08/05/20 13:10
Matrix: Solid
Date Received: 08/06/20 16:28
Percent Solids: 89.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			30595	08/06/20 22:05	ULEH	ELLE
Total/NA	Analysis	8260C		1	30234	08/08/20 15:01	R64Z	ELLE
Total/NA	Prep	3546			34278	08/18/20 09:00	A2VL	ELLE
Total/NA	Analysis	8270D		1	36279	08/23/20 23:47	ULM3	ELLE

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: AOI 4 Penrose Drilling

Job ID: 410-9875-1

Client Sample ID: CD-01-S-10-20200805

Lab Sample ID: 410-9875-2
Date Collected: 08/05/20 13:10
Matrix: Solid
Date Received: 08/06/20 16:28
Percent Solids: 89.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546	DL		34278	08/18/20 09:00	A2VL	ELLE
Total/NA	Analysis	8270D	DL	5	36476	08/24/20 13:44	ULM3	ELLE
Total/NA	Prep	3546			34318	08/18/20 09:00	A2VL	ELLE
Total/NA	Analysis	8015C		1	35403	08/20/20 18:49	YHQ2	ELLE
Total/NA	Prep	3050B			31161	08/10/20 04:59	UAMX	ELLE
Total/NA	Analysis	6010C		1	31820	08/11/20 09:49	LR7D	ELLE

Client Sample ID: Trip Blank

Lab Sample ID: 410-9875-3
Date Collected: 08/05/20 00:00
Matrix: Water
Date Received: 08/06/20 16:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	34149	08/17/20 23:28	USEJ	ELLE
Total/NA	Analysis	8015D		1	34093	08/19/20 14:06	UMDJ	ELLE
Total/NA	Prep	8011			33073	08/13/20 23:24	K2IL	ELLE
Total/NA	Analysis	8011		1	33381	08/15/20 00:20	AC3T	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Project/Site: AOI 4 Penrose Drilling

Job ID: 410-9875-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015C	3510C	Water	>C12-C22 (1C)
8015C	3510C	Water	>C22-C44 (1C)
8015C	3546	Solid	>C12-C22 (1C)
8015C	3546	Solid	>C22-C44 (1C)
Moisture		Solid	Percent Moisture

Method Summary

Client: Stantec Consulting Corp.
Project/Site: AOI 4 Penrose Drilling

Job ID: 410-9875-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
8260C/UST	Volatile Organic Compounds (GC/MS)	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
8015D	Gasoline Range Organics (GRO) (GC)	SW846	ELLE
RSK-175	Dissolved Gases (GC)	RSK	ELLE
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	ELLE
EPA 300.0 R2.1	Anions, Ion Chromatgraphy	EPA	ELLE
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	ELLE
6010C	Metals (ICP)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
2320B-2011	Alkalinity, Total	SM	ELLE
4500 NH3 C-2011	Ammonia	SM	ELLE
4500 S2 D-2011	Sulfide, Total	SM	ELLE
Moisture	Percent Moisture	EPA	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
3050B	Preparation, Metals	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
3546	Microwave Extraction	SW846	ELLE
4500 NH3 B-2011	Ammonia, Distillation	SM	ELLE
5030C	Purge and Trap	SW846	ELLE
5035	Closed System Purge and Trap	SW846	ELLE
8011	Microextraction	SW846	ELLE
Filtration	Sample Filtration	None	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: AOI 4 Penrose Drilling

Job ID: 410-9875-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-9875-1	CD-01-W-18-20200805	Water	08/05/20 16:00	08/06/20 16:28	
410-9875-2	CD-01-S-10-20200805	Solid	08/05/20 13:10	08/06/20 16:28	
410-9875-3	Trip Blank	Water	08/05/20 00:00	08/06/20 16:28	

Environmental Analysis Rec[illegible]stody

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F[illegible] 410-9875 Chain of Custody [illegible]e only

Acct. # _____

COC # 610330

Client Information	
Client: Evergreen c/o Stantec	Acct. #: 16657
Project Name/#: AOI 4 Penrose Drilling	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 213402602
Sampler: Andrew Klingbeil	Quote #: -
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Soil ☒ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☐ NPDES ☐ Surface ☐ | Other: _____

Analysis Requested — Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Water	Other	Total # of Containers	dissolved lead, total metals (-N)	Sulfide (B)	8260 VOCs* (H)	custom TPH (H)	chloride, nitrate, sulfate	EDB* headspace hydrocarbons (H)	total alkalinity (S)	ammonia	PAHs*	Lead 6010B	Remarks
CD-01-W-18-20200805	8/5/20	1600	X			X		17	X	X	X	X	X	X	X	X	X		
CD-01-S-10-20200805	8/5/20	1310	X		X						X	X		X			X	X	No headspace hydrocarbons

For Lab Use Only
FSC: _____
SCR#: _____

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks
* Refer to Evergreen petroleum short list - include TBA

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: andrew.klingbeil@stantec.com

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
[signature]	8/6/20	12:30	Pierre	8/6/20	12:30
Pierre	8/6/2	16			
			[signature]	8-6-20	1628

EDD Required? Yes No
If yes, format: EQUIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____

Temperature upon receipt 4.8 °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT https://www.eurofinsus.com/coc
The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

CJ KAM 7044 0919

Login Sample Receipt Checklist

Client: Stantec Consulting Corp. Job Number: 410-9875-1

Login Number: 9875 **List Source: Eurofins Lancaster Laboratories Env**
List Number: 1
Creator: Jeremiah, Cory T

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	Received Trip Blank(s) not listed on COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	True	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-10068-1
Client Project/Site: AOI 4 Penrose Drilling

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Andrew Klingbeil

Bethany McDaniel

Authorized for release by:
9/10/2020 2:30:05 PM
Bethany McDaniel, Senior Project Manager
(713)358-2005
Bethany.McDaniel@Eurofinset.com

Designee for

Amek Carter, Project Manager
(717)556-7252
amekcarter@eurofinsus.com

LINKS

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www.eurofinsus.com/Env

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

* QC recoveries that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result.

* Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.

* Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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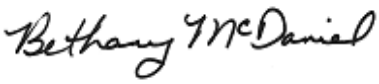

Bethany McDaniel
Senior Project Manager
9/10/2020 2:30:05 PM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 6
Detection Summary 7
Client Sample Results 8
Surrogate Summary 10
QC Sample Results 12
QC Association Summary 22
Lab Chronicle 26
Certification Summary 27
Method Summary 28
Sample Summary 29
Chain of Custody 30
Receipt Checklists 31

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: AOI 4 Penrose Drilling

Job ID: 410-10068-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*L	LCS and/or LCSD recovery below control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
XH	Surrogate recovery is above control limits

General Chemistry

Qualifier	Qualifier Description
FH	MS and/or MSD recovery above control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-10068-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-10068-1

Receipt
The sample was received on 8/7/2020 4:30 PM; the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.8°C

Receipt Exceptions
A trip blank was not submitted for analysis with the sample shipment and was not listed on the Chain of Custody (COC).

GC/MS VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270D: The laboratory control sample (LCS) for preparation batch 410-33131 and analytical batch 410-33652 recovered outside control limits for the following analytes: Naphthalene, Benzo[g,h,i]perylene, Benzo[a]pyrene and Benzo[a]anthracene. The associated sample(s) was re-prepared and/or re-analyzed outside holding time with acceptable results. The first set of data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
Method 8015C_DRO: Chlorobenzene surrogate recovery for the following sample was outside control limits: CD-01-W-41.5-20200807 (410-10068-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: AOI 4 Penrose Drilling

Job ID: 410-10068-1

Client Sample ID: CD-01-W-41.5-20200807

Lab Sample ID: 410-10068-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	70		25	5.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	26		25	1.5	ug/L	5		8260C/UST	Total/NA
Benzene	450		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Ethylbenzene	26		5.0	2.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	15	J	25	1.0	ug/L	5		8260C/UST	Total/NA
Methyl tertiary butyl ether	11		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Toluene	54		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	150		30	7.0	ug/L	5		8260C/UST	Total/NA
Anthracene	0.19	J	0.51	0.10	ug/L	1		8270D	Total/NA
Benzo[a]anthracene	0.54	*L	0.51	0.10	ug/L	1		8270D	Total/NA
Fluorene	0.20	J	0.51	0.10	ug/L	1		8270D	Total/NA
Naphthalene	9.8		0.51	0.10	ug/L	1		8270D	Total/NA
Phenanthrene	0.64		0.51	0.10	ug/L	1		8270D	Total/NA
Pyrene	0.34	J	0.51	0.10	ug/L	1		8270D	Total/NA
C5-C12 (1C)	6500		250	70	ug/L	5		8015D	Total/NA
Ethane (1C)	2.7	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	8200		250	150	ug/L	50		RSK-175	Total/NA
>C12-C22 (1C)	0.73		0.096	0.035	mg/L	1		8015C	Total/NA
>C22-C44 (1C)	0.80		0.096	0.035	mg/L	1		8015C	Total/NA
Sulfate	7.8		5.0	1.5	mg/L	5		EPA 300.0 R2.1	Total/NA
Chloride	760		200	100	mg/L	500		EPA 300.0 R2.1	Total/NA
Calcium	100		0.20	0.096	mg/L	1		6010C	Total Recoverable
Iron	45		0.20	0.040	mg/L	1		6010C	Total Recoverable
Magnesium	53		0.10	0.040	mg/L	1		6010C	Total Recoverable
Potassium	19		0.50	0.20	mg/L	1		6010C	Total Recoverable
Sodium	380		1.0	0.24	mg/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	280		8.0	8.0	mg/L	1		2320B-2011	Total/NA
Ammonia-N	1.0	J	1.5	0.50	mg/L	1		4500 NH3 C-2011	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CD-01-W-41.5-20200807

Date Collected: 08/07/20 08:40
Date Received: 08/07/20 16:30

Lab Sample ID: 410-10068-1

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**70**		25	5.0	ug/L			08/20/20 00:49	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			08/20/20 00:49	5
1,3,5-Trimethylbenzene	**26**		25	1.5	ug/L			08/20/20 00:49	5
Benzene	**450**		5.0	1.0	ug/L			08/20/20 00:49	5
Ethylbenzene	**26**		5.0	2.0	ug/L			08/20/20 00:49	5
Isopropylbenzene	**15**	**J**	25	1.0	ug/L			08/20/20 00:49	5
Methyl tertiary butyl ether	**11**		5.0	1.0	ug/L			08/20/20 00:49	5
Toluene	**54**		5.0	1.0	ug/L			08/20/20 00:49	5
Xylenes, Total	**150**		30	7.0	ug/L			08/20/20 00:49	5
2-Methyl-2-propanol	ND		250	60	ug/L			08/20/20 00:49	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*80 - 120*		*08/20/20 00:49*	*5*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*08/20/20 00:49*	*5*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*08/20/20 00:49*	*5*
Toluene-d8 (Surr)	*100*		*80 - 120*		*08/20/20 00:49*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**0.19**	**J**	0.51	0.10	ug/L		08/14/20 09:00	08/16/20 16:55	1
Benzo[a]anthracene	**0.54**	***L**	0.51	0.10	ug/L		08/14/20 09:00	08/16/20 16:55	1
Benzo[a]pyrene	ND	*L	0.51	0.10	ug/L		08/14/20 09:00	08/16/20 16:55	1
Benzo[b]fluoranthene	ND	*L	0.51	0.10	ug/L		08/14/20 09:00	08/16/20 16:55	1
Benzo[g,h,i]perylene	ND	*L	0.51	0.10	ug/L		08/14/20 09:00	08/16/20 16:55	1
Chrysene	ND		0.51	0.10	ug/L		08/14/20 09:00	08/16/20 16:55	1
Fluorene	**0.20**	**J**	0.51	0.10	ug/L		08/14/20 09:00	08/16/20 16:55	1
Naphthalene	**9.8**		0.51	0.10	ug/L		08/14/20 09:00	08/16/20 16:55	1
Phenanthrene	**0.64**		0.51	0.10	ug/L		08/14/20 09:00	08/16/20 16:55	1
Pyrene	**0.34**	**J**	0.51	0.10	ug/L		08/14/20 09:00	08/16/20 16:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*77*		*44 - 102*	*08/14/20 09:00*	*08/16/20 16:55*	*1*
Nitrobenzene-d5 (Surr)	*84*		*38 - 113*	*08/14/20 09:00*	*08/16/20 16:55*	*1*
p-Terphenyl-d14 (Surr)	*74*		*34 - 128*	*08/14/20 09:00*	*08/16/20 16:55*	*1*

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C12 (1C)	**6500**		250	70	ug/L			08/19/20 16:23	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (fid) (1C)	*100*		*63 - 135*		*08/19/20 16:23*	*5*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**2.7**	**J**	5.0	1.0	ug/L		08/11/20 09:19	08/11/20 12:19	1
Ethene (1C)	ND		5.0	1.0	ug/L		08/11/20 09:19	08/11/20 12:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*57*		*28 - 140*	*08/11/20 09:19*	*08/11/20 12:19*	*1*

Client: Stantec Consulting Corp.
Project/Site: AOI 4 Penrose Drilling

Job ID: 410-10068-1

Client Sample ID: CD-01-W-41.5-20200807

Date Collected: 08/07/20 08:40
Date Received: 08/07/20 16:30

Lab Sample ID: 410-10068-1

Matrix: Water

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	8200		250	150	ug/L		08/12/20 08:05	08/12/20 11:44	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*90*		*28 - 140*	*08/12/20 08:05*	*08/12/20 11:44*	*50*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0096	ug/L		08/20/20 23:03	08/21/20 23:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*110*		*46 - 136*	*08/20/20 23:03*	*08/21/20 23:08*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*79*		*46 - 136*	*08/20/20 23:03*	*08/21/20 23:08*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	0.73		0.096	0.035	mg/L		08/11/20 22:14	08/12/20 16:59	1
>C22-C44 (1C)	0.80		0.096	0.035	mg/L		08/11/20 22:14	08/12/20 16:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*162*	*XH*	*21 - 116*	*08/11/20 22:14*	*08/12/20 16:59*	*1*
o- terphenyl (Surr) (1C)	*104*		*51 - 126*	*08/11/20 22:14*	*08/12/20 16:59*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND		0.50	0.25	mg/L			08/08/20 19:46	5

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	7.8		5.0	1.5	mg/L			08/08/20 19:46	5
Chloride	760		200	100	mg/L			08/08/20 20:03	500

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	100		0.20	0.096	mg/L		08/10/20 02:44	08/14/20 09:04	1
Iron	45		0.20	0.040	mg/L		08/10/20 02:44	08/14/20 00:18	1
Magnesium	53		0.10	0.040	mg/L		08/10/20 02:44	08/12/20 10:42	1
Potassium	19		0.50	0.20	mg/L		08/10/20 02:44	08/14/20 00:18	1
Sodium	380		1.0	0.24	mg/L		08/10/20 02:44	08/14/20 09:04	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		08/12/20 15:39	08/14/20 15:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	280		8.0	8.0	mg/L			08/10/20 23:16	1
Ammonia-N	1.0	J	1.5	0.50	mg/L		08/11/20 08:18	08/11/20 10:39	1
Sulfide	ND	FH	0.30	0.10	mg/L			08/08/20 14:58	1

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: AOI 4 Penrose Drilling

Job ID: 410-10068-1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-10068-1	CD-01-W-41.5-20200807	86	93	95	100
LCS 410-35054/4	Lab Control Sample	90	96	96	100
LCSD 410-35054/5	Lab Control Sample Dup	90	96	95	99
MB 410-35054/6	Method Blank	89	94	96	99

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(44-102)	(38-113)	(34-128)
410-10068-1	CD-01-W-41.5-20200807	77	84	74
LCS 410-33131/2-A	Lab Control Sample	65	72	76
LCSD 410-33131/3-A	Lab Control Sample Dup	55	61	66
MB 410-33131/1-A	Method Blank	75	81	94

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		TFT-F1
Lab Sample ID	Client Sample ID	(63-135)
410-10068-1	CD-01-W-41.5-20200807	100
LCS 410-34093/5	Lab Control Sample	85
LCSD 410-34093/6	Lab Control Sample Dup	81
MB 410-34093/4	Method Blank	86

Surrogate Legend

TFT-F = a,a,a-Trifluorotoluene (fid)

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		Propene1
Lab Sample ID	Client Sample ID	(28-140)
410-10068-1	CD-01-W-41.5-20200807	57
410-10068-1 - DL	CD-01-W-41.5-20200807	90
LCS 410-31787/2-A	Lab Control Sample	95
LCS 410-32244/2-A	Lab Control Sample	96
LCSD 410-31787/3-A	Lab Control Sample Dup	92

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: AOI 4 Penrose Drilling

Job ID: 410-10068-1

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		Propene1
Lab Sample ID	Client Sample ID	(28-140)
LCSD 410-32244/3-A	Lab Control Sample Dup	90
MB 410-31787/1-A	Method Blank	93
MB 410-32244/1-A	Method Blank	92

Surrogate Legend

Propene = Propene

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1122TCA1	1122TCA2
Lab Sample ID	Client Sample ID	(46-136)	(46-136)
410-10068-1	CD-01-W-41.5-20200807	110	79
LCS 410-35654/2-A	Lab Control Sample	91	83
LCSD 410-35654/3-A	Lab Control Sample Dup	83	77
MB 410-35654/1-A	Method Blank	90	78

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		CBNZ1	OTP1
Lab Sample ID	Client Sample ID	(21-116)	(51-126)
410-10068-1	CD-01-W-41.5-20200807	162 XH	104
LCS 410-32109/2-A	Lab Control Sample	76	102
LCSD 410-32109/3-A	Lab Control Sample Dup	82	104
MB 410-32109/1-A	Method Blank	72	87

Surrogate Legend

CBNZ = Chlorobenzene (Surr)

OTP = o- terphenyl (Surr)

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-35054/6
Matrix: Water
Analysis Batch: 35054

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			08/19/20 20:56	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			08/19/20 20:56	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			08/19/20 20:56	1
Benzene	ND		1.0	0.20	ug/L			08/19/20 20:56	1
Ethylbenzene	ND		1.0	0.40	ug/L			08/19/20 20:56	1
Isopropylbenzene	ND		5.0	0.20	ug/L			08/19/20 20:56	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			08/19/20 20:56	1
Toluene	ND		1.0	0.20	ug/L			08/19/20 20:56	1
Xylenes, Total	ND		6.0	1.4	ug/L			08/19/20 20:56	1
2-Methyl-2-propanol	ND		50	12	ug/L			08/19/20 20:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*89*		*80 - 120*		*08/19/20 20:56*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*08/19/20 20:56*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*08/19/20 20:56*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*08/19/20 20:56*	*1*

Lab Sample ID: LCS 410-35054/4
Matrix: Water
Analysis Batch: 35054

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2,4-Trimethylbenzene			20.0	17.4		ug/L		87	75 - 120		
1,2-Dichloroethane			20.0	16.8		ug/L		84	73 - 124		
1,3,5-Trimethylbenzene			20.0	17.1		ug/L		86	75 - 120		
Benzene			20.0	18.5		ug/L		92	80 - 120		
Ethylbenzene			20.0	18.1		ug/L		90	80 - 120		
Isopropylbenzene			20.0	17.6		ug/L		88	80 - 120		
Methyl tertiary butyl ether			20.0	18.1		ug/L		90	69 - 122		
Naphthalene			20.0	15.6		ug/L		78	53 - 124		
Toluene			20.0	18.6		ug/L		93	80 - 120		
Xylenes, Total			60.0	55.7		ug/L		93	80 - 120		
2-Methyl-2-propanol			200	175		ug/L		87	60 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Lab Sample ID: LCSD 410-35054/5
Matrix: Water
Analysis Batch: 35054

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene			20.0	17.0		ug/L		85	75 - 120	2	30
1,2-Dichloroethane			20.0	16.5		ug/L		82	73 - 124	2	30
1,3,5-Trimethylbenzene			20.0	16.6		ug/L		83	75 - 120	3	30

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-35054/5
Matrix: Water
Analysis Batch: 35054

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	20.0	17.9		ug/L		90	80 - 120	3	30
Ethylbenzene	20.0	17.6		ug/L		88	80 - 120	3	30
Isopropylbenzene	20.0	17.2		ug/L		86	80 - 120	2	30
Methyl tertiary butyl ether	20.0	17.3		ug/L		87	69 - 122	4	30
Naphthalene	20.0	15.2		ug/L		76	53 - 124	3	30
Toluene	20.0	18.1		ug/L		91	80 - 120	3	30
Xylenes, Total	60.0	53.7		ug/L		90	80 - 120	4	30
2-Methyl-2-propanol	200	170		ug/L		85	60 - 130	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*80 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-33131/1-A
Matrix: Water
Analysis Batch: 33652

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 33131

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		08/14/20 09:00	08/16/20 10:44	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		08/14/20 09:00	08/16/20 10:44	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		08/14/20 09:00	08/16/20 10:44	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		08/14/20 09:00	08/16/20 10:44	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		08/14/20 09:00	08/16/20 10:44	1
Chrysene	ND		0.50	0.10	ug/L		08/14/20 09:00	08/16/20 10:44	1
Fluorene	ND		0.50	0.10	ug/L		08/14/20 09:00	08/16/20 10:44	1
Naphthalene	ND		0.50	0.10	ug/L		08/14/20 09:00	08/16/20 10:44	1
Phenanthrene	ND		0.50	0.10	ug/L		08/14/20 09:00	08/16/20 10:44	1
Pyrene	ND		0.50	0.10	ug/L		08/14/20 09:00	08/16/20 10:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*75*		*44 - 102*	*08/14/20 09:00*	*08/16/20 10:44*	*1*
Nitrobenzene-d5 (Surr)	*81*		*38 - 113*	*08/14/20 09:00*	*08/16/20 10:44*	*1*
p-Terphenyl-d14 (Surr)	*94*		*34 - 128*	*08/14/20 09:00*	*08/16/20 10:44*	*1*

Lab Sample ID: LCS 410-33131/2-A
Matrix: Water
Analysis Batch: 33652

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 33131

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.1	43.0		ug/L		86	67 - 116
Benzo[a]anthracene	50.0	40.4		ug/L		81	68 - 123
Benzo[a]pyrene	50.2	37.2		ug/L		74	71 - 117
Benzo[b]fluoranthene	50.1	38.1		ug/L		76	69 - 121
Benzo[g,h,i]perylene	50.1	37.3		ug/L		75	60 - 119

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-33131/2-A
Matrix: Water
Analysis Batch: 33652

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 33131

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chrysene			50.0	46.1		ug/L		92	65 - 121		
Fluorene			50.1	40.3		ug/L		80	56 - 115		
Naphthalene			50.4	33.1		ug/L		66	51 - 102		
Phenanthrene			50.2	41.6		ug/L		83	65 - 113		
Pyrene			50.4	40.9		ug/L		81	65 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*65*		*44 - 102*
Nitrobenzene-d5 (Surr)	*72*		*38 - 113*
p-Terphenyl-d14 (Surr)	*76*		*34 - 128*

Lab Sample ID: LCSD 410-33131/3-A
Matrix: Water
Analysis Batch: 33652

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 33131

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Anthracene			50.1	33.7		ug/L		67	67 - 116	24	30
Benzo[a]anthracene			50.0	32.0	*L	ug/L		64	68 - 123	23	30
Benzo[a]pyrene			50.2	29.8	*L	ug/L		59	71 - 117	22	30
Benzo[b]fluoranthene			50.1	30.5	*L	ug/L		61	69 - 121	22	30
Benzo[g,h,i]perylene			50.1	28.8	*L	ug/L		57	60 - 119	26	30
Chrysene			50.0	36.7		ug/L		73	65 - 121	23	30
Fluorene			50.1	31.4		ug/L		63	56 - 115	25	30
Naphthalene			50.4	26.5		ug/L		53	51 - 102	22	30
Phenanthrene			50.2	33.1		ug/L		66	65 - 113	23	30
Pyrene			50.4	32.8		ug/L		65	65 - 115	22	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*55*		*44 - 102*
Nitrobenzene-d5 (Surr)	*61*		*38 - 113*
p-Terphenyl-d14 (Surr)	*66*		*34 - 128*

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 410-34093/4
Matrix: Water
Analysis Batch: 34093

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C12 (1C)	ND		50	14	ug/L			08/19/20 12:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (fid) (1C)	*86*		*63 - 135*		*08/19/20 12:43*	*1*

Method: 8015D - Gasoline Range Organics (GRO) (GC) (Continued)

Lab Sample ID: LCS 410-34093/5
Matrix: Water
Analysis Batch: 34093

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C5-C12 (1C)			1100	1060		ug/L		97	66 - 128		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene (fid) (1C)	*85*		*63 - 135*

Lab Sample ID: LCSD 410-34093/6
Matrix: Water
Analysis Batch: 34093

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C5-C12 (1C)			1100	1060		ug/L		96	66 - 128	0	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene (fid) (1C)	*81*		*63 - 135*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-31787/1-A
Matrix: Water
Analysis Batch: 31793

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 31787

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		08/11/20 09:19	08/11/20 09:41	1
Ethene (1C)	ND		5.0	1.0	ug/L		08/11/20 09:19	08/11/20 09:41	1
Methane (1C)	ND		5.0	3.0	ug/L		08/11/20 09:19	08/11/20 09:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*93*		*28 - 140*	*08/11/20 09:19*	*08/11/20 09:41*	*1*

Lab Sample ID: LCS 410-31787/2-A
Matrix: Water
Analysis Batch: 31793

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31787

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	54.5		ug/L		92	85 - 115		
Ethene (1C)			60.4	56.8		ug/L		94	83 - 115		
Methane (1C)			59.4	57.7		ug/L		97	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*95*		*28 - 140*

Lab Sample ID: LCSD 410-31787/3-A
Matrix: Water
Analysis Batch: 31793

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 31787

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	54.7		ug/L		92	85 - 115	0	20
Ethene (1C)			60.4	56.8		ug/L		94	83 - 115	0	20

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCSD 410-31787/3-A
Matrix: Water
Analysis Batch: 31793

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 31787

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methane (1C)			59.4	58.9		ug/L		99	85 - 115	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*92*		*28 - 140*

Lab Sample ID: MB 410-32244/1-A
Matrix: Water
Analysis Batch: 32251

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32244

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		08/12/20 08:05	08/12/20 09:06	1
Ethene (1C)	ND		5.0	1.0	ug/L		08/12/20 08:05	08/12/20 09:06	1
Methane (1C)	ND		5.0	3.0	ug/L		08/12/20 08:05	08/12/20 09:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*92*		*28 - 140*	*08/12/20 08:05*	*08/12/20 09:06*	*1*

Lab Sample ID: LCS 410-32244/2-A
Matrix: Water
Analysis Batch: 32251

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32244

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	55.7		ug/L		94	85 - 115		
Ethene (1C)			60.4	57.8		ug/L		96	83 - 115		
Methane (1C)			59.4	61.3		ug/L		103	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*96*		*28 - 140*

Lab Sample ID: LCSD 410-32244/3-A
Matrix: Water
Analysis Batch: 32251

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32244

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	53.9		ug/L		91	85 - 115	3	20
Ethene (1C)			60.4	56.2		ug/L		93	83 - 115	3	20
Methane (1C)			59.4	59.5		ug/L		100	85 - 115	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*90*		*28 - 140*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-35654/1-A
Matrix: Water
Analysis Batch: 35963

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 35654

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		08/20/20 23:03	08/21/20 17:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*90*		*46 - 136*	*08/20/20 23:03*	*08/21/20 17:31*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*78*		*46 - 136*	*08/20/20 23:03*	*08/21/20 17:31*	*1*

Lab Sample ID: LCS 410-35654/2-A
Matrix: Water
Analysis Batch: 35963

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 35654

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.178		ug/L		139	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*91*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*83*		*46 - 136*

Lab Sample ID: LCSD 410-35654/3-A
Matrix: Water
Analysis Batch: 35963

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 35654

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.153		ug/L		120	60 - 140	15	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*83*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*77*		*46 - 136*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 410-32109/1-A
Matrix: Water
Analysis Batch: 32811

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32109

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		0.10	0.037	mg/L		08/11/20 22:14	08/12/20 15:34	1
>C22-C44 (1C)	ND		0.10	0.037	mg/L		08/11/20 22:14	08/12/20 15:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*72*		*21 - 116*	*08/11/20 22:14*	*08/12/20 15:34*	*1*
o- terphenyl (Surr) (1C)	*87*		*51 - 126*	*08/11/20 22:14*	*08/12/20 15:34*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: LCS 410-32109/2-A
Matrix: Water
Analysis Batch: 32811

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32109

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
DRO (C10-C28) (1C)			0.800	0.699		mg/L		87	48 - 116		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Chlorobenzene (Surr) (1C)	*76*		*21 - 116*
o- terphenyl (Surr) (1C)	*102*		*51 - 126*

Lab Sample ID: LCSD 410-32109/3-A
Matrix: Water
Analysis Batch: 32811

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32109

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (C10-C28) (1C)			0.800	0.712		mg/L		89	48 - 116	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Chlorobenzene (Surr) (1C)	*82*		*21 - 116*
o- terphenyl (Surr) (1C)	*104*		*51 - 126*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Lab Sample ID: MB 410-31007/4
Matrix: Water
Analysis Batch: 31007

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND		0.10	0.050	mg/L			08/08/20 12:05	1

Lab Sample ID: LCS 410-31007/3
Matrix: Water
Analysis Batch: 31007

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrogen, Nitrate			0.750	0.726		mg/L		97	90 - 110		

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 410-31006/4
Matrix: Water
Analysis Batch: 31006

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1.0	0.30	mg/L			08/08/20 12:05	1
Chloride	ND		0.40	0.20	mg/L			08/08/20 12:05	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 410-31006/3
Matrix: Water
Analysis Batch: 31006

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	7.50	7.64		mg/L		102	90 - 110
Chloride	3.00	3.05		mg/L		102	90 - 110

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-31143/1-A
Matrix: Water
Analysis Batch: 32107

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 31143

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.20	0.096	mg/L		08/10/20 02:44	08/11/20 19:25	1
Iron	ND		0.20	0.040	mg/L		08/10/20 02:44	08/11/20 19:25	1
Magnesium	ND		0.10	0.040	mg/L		08/10/20 02:44	08/11/20 19:25	1
Potassium	ND		0.50	0.20	mg/L		08/10/20 02:44	08/11/20 19:25	1
Sodium	ND		1.0	0.24	mg/L		08/10/20 02:44	08/11/20 19:25	1

Lab Sample ID: LCS 410-31143/2-A
Matrix: Water
Analysis Batch: 32107

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 31143

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	0.400	0.411		mg/L		103	80 - 120
Iron	0.402	0.418		mg/L		104	80 - 120
Magnesium	0.200	0.217		mg/L		108	80 - 120
Potassium	5.60	5.88		mg/L		105	80 - 120
Sodium	2.00	1.99		mg/L		99	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 410-32464/1-A
Matrix: Water
Analysis Batch: 33698

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32464

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		08/12/20 15:39	08/14/20 15:09	1

Lab Sample ID: LCS 410-32464/2-A
Matrix: Water
Analysis Batch: 33698

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32464

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	4.92	5.02		ug/L		102	90 - 115

Lab Sample ID: 410-10068-1 MS
Matrix: Water
Analysis Batch: 33698

Client Sample ID: CD-01-W-41.5-20200807
Prep Type: Dissolved
Prep Batch: 32464

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	ND		4.92	4.85		ug/L		99	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 410-10068-1 MSD
Matrix: Water
Analysis Batch: 33698

Client Sample ID: CD-01-W-41.5-20200807
Prep Type: Dissolved
Prep Batch: 32464

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	ND		4.92	5.00		ug/L		102	75 - 125	3	20

Lab Sample ID: 410-10068-1 DU
Matrix: Water
Analysis Batch: 33698

Client Sample ID: CD-01-W-41.5-20200807
Prep Type: Dissolved
Prep Batch: 32464

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	ND		ND		ug/L		NC	20

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 410-31934/50
Matrix: Water
Analysis Batch: 31934

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8.0	8.0	mg/L			08/10/20 23:01	1

Lab Sample ID: LCS 410-31934/51
Matrix: Water
Analysis Batch: 31934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	189	167		mg/L		88	82 - 106

Lab Sample ID: 410-10068-1 MS
Matrix: Water
Analysis Batch: 31934

Client Sample ID: CD-01-W-41.5-20200807
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	280		189	446		mg/L		88	82 - 106

Lab Sample ID: 410-10068-1 DU
Matrix: Water
Analysis Batch: 31934

Client Sample ID: CD-01-W-41.5-20200807
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	280		280		mg/L		0	5

Method: 4500 NH3 C-2011 - Ammonia

Lab Sample ID: MB 410-31748/1-A
Matrix: Water
Analysis Batch: 31827

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 31748

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia-N	ND		0.75	0.25	mg/L		08/11/20 08:18	08/11/20 10:39	1

Method: 4500 NH3 C-2011 - Ammonia (Continued)

Lab Sample ID: LCS 410-31748/2-A
Matrix: Water
Analysis Batch: 31827

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31748

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia-N	500	469		mg/L		94	93 - 100

Lab Sample ID: LCSD 410-31748/3-A
Matrix: Water
Analysis Batch: 31827

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 31748

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia-N	500	470		mg/L		94	93 - 100	0	5

Method: 4500 S2 D-2011 - Sulfide, Total

Lab Sample ID: MB 410-31041/1
Matrix: Water
Analysis Batch: 31041

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.30	0.10	mg/L			08/08/20 14:58	1

Lab Sample ID: 410-10068-1 MS
Matrix: Water
Analysis Batch: 31041

Client Sample ID: CD-01-W-41.5-20200807
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	ND	FH	0.437	0.511	FH	mg/L		117	90 - 110

Lab Sample ID: 410-10068-1 MSD
Matrix: Water
Analysis Batch: 31041

Client Sample ID: CD-01-W-41.5-20200807
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfide	ND	FH	0.437	0.523	FH	mg/L		120	90 - 110	2	29

Lab Sample ID: 410-10068-1 DU
Matrix: Water
Analysis Batch: 31041

Client Sample ID: CD-01-W-41.5-20200807
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfide	ND	FH	ND		mg/L		NC	5

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: AOI 4 Penrose Drilling

Job ID: 410-10068-1

GC/MS VOA

Analysis Batch: 35054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10068-1	CD-01-W-41.5-20200807	Total/NA	Water	8260C/UST	
MB 410-35054/6	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-35054/4	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-35054/5	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

GC/MS Semi VOA

Prep Batch: 33131

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10068-1	CD-01-W-41.5-20200807	Total/NA	Water	3510C	
MB 410-33131/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-33131/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-33131/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 33652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10068-1	CD-01-W-41.5-20200807	Total/NA	Water	8270D	33131
MB 410-33131/1-A	Method Blank	Total/NA	Water	8270D	33131
LCS 410-33131/2-A	Lab Control Sample	Total/NA	Water	8270D	33131
LCSD 410-33131/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	33131

GC VOA

Prep Batch: 31787

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10068-1	CD-01-W-41.5-20200807	Total/NA	Water	RSK-175	
MB 410-31787/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-31787/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-31787/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 31793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10068-1	CD-01-W-41.5-20200807	Total/NA	Water	RSK-175	31787
MB 410-31787/1-A	Method Blank	Total/NA	Water	RSK-175	31787
LCS 410-31787/2-A	Lab Control Sample	Total/NA	Water	RSK-175	31787
LCSD 410-31787/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	31787

Prep Batch: 32244

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10068-1 - DL	CD-01-W-41.5-20200807	Total/NA	Water	RSK-175	
MB 410-32244/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-32244/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-32244/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 32251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10068-1 - DL	CD-01-W-41.5-20200807	Total/NA	Water	RSK-175	32244
MB 410-32244/1-A	Method Blank	Total/NA	Water	RSK-175	32244
LCS 410-32244/2-A	Lab Control Sample	Total/NA	Water	RSK-175	32244
LCSD 410-32244/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	32244

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: AOI 4 Penrose Drilling

Job ID: 410-10068-1

GC VOA

Analysis Batch: 34093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10068-1	CD-01-W-41.5-20200807	Total/NA	Water	8015D	
MB 410-34093/4	Method Blank	Total/NA	Water	8015D	
LCS 410-34093/5	Lab Control Sample	Total/NA	Water	8015D	
LCSD 410-34093/6	Lab Control Sample Dup	Total/NA	Water	8015D	

GC Semi VOA

Prep Batch: 32109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10068-1	CD-01-W-41.5-20200807	Total/NA	Water	3510C	
MB 410-32109/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-32109/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-32109/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 32811

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10068-1	CD-01-W-41.5-20200807	Total/NA	Water	8015C	32109
MB 410-32109/1-A	Method Blank	Total/NA	Water	8015C	32109
LCS 410-32109/2-A	Lab Control Sample	Total/NA	Water	8015C	32109
LCSD 410-32109/3-A	Lab Control Sample Dup	Total/NA	Water	8015C	32109

Prep Batch: 35654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10068-1	CD-01-W-41.5-20200807	Total/NA	Water	8011	
MB 410-35654/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-35654/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-35654/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 35963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10068-1	CD-01-W-41.5-20200807	Total/NA	Water	8011	35654
MB 410-35654/1-A	Method Blank	Total/NA	Water	8011	35654
LCS 410-35654/2-A	Lab Control Sample	Total/NA	Water	8011	35654
LCSD 410-35654/3-A	Lab Control Sample Dup	Total/NA	Water	8011	35654

HPLC/IC

Analysis Batch: 31006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10068-1	CD-01-W-41.5-20200807	Total/NA	Water	EPA 300.0 R2.1	
410-10068-1	CD-01-W-41.5-20200807	Total/NA	Water	EPA 300.0 R2.1	
MB 410-31006/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-31006/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 31007

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10068-1	CD-01-W-41.5-20200807	Total/NA	Water	EPA 300.0 R2.1	
MB 410-31007/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-31007/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 31143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10068-1	CD-01-W-41.5-20200807	Total Recoverable	Water	3005A	
MB 410-31143/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-31143/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 32107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-31143/1-A	Method Blank	Total Recoverable	Water	6010C	31143
LCS 410-31143/2-A	Lab Control Sample	Total Recoverable	Water	6010C	31143

Analysis Batch: 32353

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10068-1	CD-01-W-41.5-20200807	Total Recoverable	Water	6010C	31143

Filtration Batch: 32447

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10068-1	CD-01-W-41.5-20200807	Dissolved	Water	Filtration	
410-10068-1 MS	CD-01-W-41.5-20200807	Dissolved	Water	Filtration	
410-10068-1 MSD	CD-01-W-41.5-20200807	Dissolved	Water	Filtration	
410-10068-1 DU	CD-01-W-41.5-20200807	Dissolved	Water	Filtration	

Prep Batch: 32464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10068-1	CD-01-W-41.5-20200807	Dissolved	Water	Non-Digest Prep	32447
MB 410-32464/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-32464/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	
410-10068-1 MS	CD-01-W-41.5-20200807	Dissolved	Water	Non-Digest Prep	32447
410-10068-1 MSD	CD-01-W-41.5-20200807	Dissolved	Water	Non-Digest Prep	32447
410-10068-1 DU	CD-01-W-41.5-20200807	Dissolved	Water	Non-Digest Prep	32447

Analysis Batch: 33098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10068-1	CD-01-W-41.5-20200807	Total Recoverable	Water	6010C	31143

Analysis Batch: 33248

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10068-1	CD-01-W-41.5-20200807	Total Recoverable	Water	6010C	31143

Analysis Batch: 33698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10068-1	CD-01-W-41.5-20200807	Dissolved	Water	6020A	32464
MB 410-32464/1-A	Method Blank	Total/NA	Water	6020A	32464
LCS 410-32464/2-A	Lab Control Sample	Total/NA	Water	6020A	32464
410-10068-1 MS	CD-01-W-41.5-20200807	Dissolved	Water	6020A	32464
410-10068-1 MSD	CD-01-W-41.5-20200807	Dissolved	Water	6020A	32464
410-10068-1 DU	CD-01-W-41.5-20200807	Dissolved	Water	6020A	32464

General Chemistry

Analysis Batch: 31041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10068-1	CD-01-W-41.5-20200807	Total/NA	Water	4500 S2 D-2011	

General Chemistry (Continued)

Analysis Batch: 31041 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-31041/1	Method Blank	Total/NA	Water	4500 S2 D-2011	
410-10068-1 MS	CD-01-W-41.5-20200807	Total/NA	Water	4500 S2 D-2011	
410-10068-1 MSD	CD-01-W-41.5-20200807	Total/NA	Water	4500 S2 D-2011	
410-10068-1 DU	CD-01-W-41.5-20200807	Total/NA	Water	4500 S2 D-2011	

Prep Batch: 31748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10068-1	CD-01-W-41.5-20200807	Total/NA	Water	4500 NH3 B-2011	
MB 410-31748/1-A	Method Blank	Total/NA	Water	4500 NH3 B-2011	
LCS 410-31748/2-A	Lab Control Sample	Total/NA	Water	4500 NH3 B-2011	
LCSD 410-31748/3-A	Lab Control Sample Dup	Total/NA	Water	4500 NH3 B-2011	

Analysis Batch: 31827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10068-1	CD-01-W-41.5-20200807	Total/NA	Water	4500 NH3 C-2011	31748
MB 410-31748/1-A	Method Blank	Total/NA	Water	4500 NH3 C-2011	31748
LCS 410-31748/2-A	Lab Control Sample	Total/NA	Water	4500 NH3 C-2011	31748
LCSD 410-31748/3-A	Lab Control Sample Dup	Total/NA	Water	4500 NH3 C-2011	31748

Analysis Batch: 31934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10068-1	CD-01-W-41.5-20200807	Total/NA	Water	2320B-2011	
MB 410-31934/50	Method Blank	Total/NA	Water	2320B-2011	
LCS 410-31934/51	Lab Control Sample	Total/NA	Water	2320B-2011	
410-10068-1 MS	CD-01-W-41.5-20200807	Total/NA	Water	2320B-2011	
410-10068-1 DU	CD-01-W-41.5-20200807	Total/NA	Water	2320B-2011	

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: AOI 4 Penrose Drilling

Job ID: 410-10068-1

Client Sample ID: CD-01-W-41.5-20200807

Date Collected: 08/07/20 08:40
Date Received: 08/07/20 16:30

Lab Sample ID: 410-10068-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	35054	08/20/20 00:49	USEJ	ELLE
Total/NA	Prep	3510C			33131	08/14/20 09:00	R9CT	ELLE
Total/NA	Analysis	8270D		1	33652	08/16/20 16:55	W6XI	ELLE
Total/NA	Analysis	8015D		5	34093	08/19/20 16:23	UMDJ	ELLE
Total/NA	Prep	RSK-175			31787	08/11/20 09:19	IYN5	ELLE
Total/NA	Analysis	RSK-175		1	31793	08/11/20 12:19	IYN5	ELLE
Total/NA	Prep	RSK-175	DL		32244	08/12/20 08:05	IYN5	ELLE
Total/NA	Analysis	RSK-175	DL	50	32251	08/12/20 11:44	IYN5	ELLE
Total/NA	Prep	8011			35654	08/20/20 23:03	K2IL	ELLE
Total/NA	Analysis	8011		1	35963	08/21/20 23:08	AC3T	ELLE
Total/NA	Prep	3510C			32109	08/11/20 22:14	K2IL	ELLE
Total/NA	Analysis	8015C		1	32811	08/12/20 16:59	KP5X	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	31006	08/08/20 19:46	GJ35	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	31007	08/08/20 19:46	GJ35	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		500	31006	08/08/20 20:03	GJ35	ELLE
Total Recoverable	Prep	3005A			31143	08/10/20 02:44	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	32353	08/12/20 10:42	LR7D	ELLE
Total Recoverable	Prep	3005A			31143	08/10/20 02:44	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	33098	08/14/20 00:18	LR7D	ELLE
Total Recoverable	Prep	3005A			31143	08/10/20 02:44	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	33248	08/14/20 09:04	LR7D	ELLE
Dissolved	Filtration	Filtration			32447	08/12/20 14:30	UJLA	ELLE
Dissolved	Prep	Non-Digest Prep			32464	08/12/20 15:39	UJLA	ELLE
Dissolved	Analysis	6020A		1	33698	08/14/20 15:13	V5SW	ELLE
Total/NA	Analysis	2320B-2011		1	31934	08/10/20 23:16	JB	ELLE
Total/NA	Prep	4500 NH3 B-2011			31748	08/11/20 08:18	P8DZ	ELLE
Total/NA	Analysis	4500 NH3 C-2011		1	31827	08/11/20 10:39	P8DZ	ELLE
Total/NA	Analysis	4500 S2 D-2011		1	31041	08/08/20 14:58	P8DZ	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Project/Site: AOI 4 Penrose Drilling

Job ID: 410-10068-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015C	3510C	Water	>C12-C22 (1C)
8015C	3510C	Water	>C22-C44 (1C)

Method Summary

Client: Stantec Consulting Corp.
Project/Site: AOI 4 Penrose Drilling

Job ID: 410-10068-1

Method	Method Description	Protocol	Laboratory
8260C/UST	Volatile Organic Compounds (GC/MS)	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
8015D	Gasoline Range Organics (GRO) (GC)	SW846	ELLE
RSK-175	Dissolved Gases (GC)	RSK	ELLE
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	ELLE
EPA 300.0 R2.1	Anions, Ion Chromatgraphy	EPA	ELLE
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	ELLE
6010C	Metals (ICP)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
2320B-2011	Alkalinity, Total	SM	ELLE
4500 NH3 C-2011	Ammonia	SM	ELLE
4500 S2 D-2011	Sulfide, Total	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
4500 NH3 B-2011	Ammonia, Distillation	SM	ELLE
5030C	Purge and Trap	SW846	ELLE
8011	Microextraction	SW846	ELLE
Filtration	Sample Filtration	None	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: AOI 4 Penrose Drilling

Job ID: 410-10068-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-10068-1	CD-01-W-41.5-20200807	Water	08/07/20 08:40	08/07/20 16:30	

Environmental Analysis Requ[illegible]ody

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For [illegible] only

Acct. # _____

410-10068 Chain of Custody

COC # 610333

Client Information	
Client: Evergreen c/o Stante	Acct. #: 16657
Project Name/#: AOI 4 Penrose Drilling	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 213402602
Sampler: Jenny Kachel	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☐ NPDES ☐ Surface ☐ | Other: _____

Analysis Requested — Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Water	Other	Total # of Containers	dissolved lead, total metals (-N)	Sulfide (R)	8260 VOCs*, TPH GRO (H)	custom TPH	chloride, nitrate, sulfate	ED gas (SOH) headspace hydrocarbons (H)	total alkalinity	ammonia (S)	PAHs*		Remarks
CD-01-W-41.5-20200807	8/7/20	0840	X			X		17	X	X	X	X	X	X	X	X	X		*See Evergreen Short list

For Lab Use Only
FSC: _____
SCR#: _____

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: andrew.klingbeil@stantec.com

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
[signature]	8/7/20	1047	[signature]	8-7-20	1047
[signature]	8-7-20	1606			
			[signature]	8-7-20	1630

EDD Required? Yes No
If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other X

Temperature upon receipt 2.8 °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT https://www.eurofinsus.com/coc
The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

KAM 7044 0919

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-10068-1

Login Number: 10068
List Number: 1
Creator: Colon Martinez, Jessenia C

List Source: Eurofins Lancaster Laboratories Env

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-10488-1
Client Project/Site: PHL Penrose Drilling Sampling

For:
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Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

* QC recoveries that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result.

* Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.

* Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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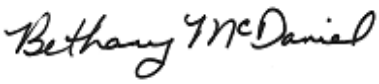

Bethany McDaniel
Senior Project Manager
9/10/2020 10:18:11 AM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 7
Client Sample Results 8
Surrogate Summary 11
QC Sample Results 13
QC Association Summary 23
Lab Chronicle 27
Certification Summary 28
Method Summary 29
Sample Summary 30
Chain of Custody 31
Receipt Checklists 32

Client: Stantec Consulting Corp.
Job ID: 410-10488-1
Project/Site: PHL Penrose Drilling Sampling

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
*H	LCS and/or LCSD recovery above control limits.
^c	CCV Recovery is outside acceptance limits.
XH	Surrogate recovery is above control limits
XL	Surrogate recovery is below control limits

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-10488-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-10488-1

Receipt
The samples were received on 8/12/2020 4:50 PM; the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.1°C

GC/MS VOA
Method 8260C_UST: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: CD-14-W-23.0-20200811 (410-10488-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
Method RSK_175: The method requirement for no headspace was not met for the analysis of Methane. The following volatile sample was analyzed with significant headspace in the sample container(s): CD-14-W-23.0-20200811 (410-10488-1). Significant headspace is defined as a bubble greater than 6 mm in diameter.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
Method 8015C_DRO: Surrogate o-terphenyl recovery for the following sample was outside control limits: CD-14-W-23.0-20200811 (410-10488-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8011: The following samples were prepared outside of preparation holding time for method 8011_prep/8011: CD-14-W-23.0-20200811 (410-10488-1) and TB-2020811 (410-10488-2).

Method 8011: The surrogate recovery for the blank and laboratory control sample (LCS) associated with prep batch 33694 was outside the lower control limits. The sample was re-extracted outside of the method holding time. The first trial is reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
Method 300_ORGFM_28D: The continuing calibration blank (CCB) for analytical batch 410-32850 contained Sulfate above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

Job ID: 410-10488-1 (Continued)

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Conti

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-10488-1

Client Sample ID: CD-14-W-23.0-20200811 — Lab Sample ID: 410-10488-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	800		100	20	ug/L	20		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	320		100	6.0	ug/L	20		8260C/UST	Total/NA
Benzene	18	J	20	4.0	ug/L	20		8260C/UST	Total/NA
Ethylbenzene	1400		20	8.0	ug/L	20		8260C/UST	Total/NA
Isopropylbenzene	54	J	100	4.0	ug/L	20		8260C/UST	Total/NA
Toluene	700		20	4.0	ug/L	20		8260C/UST	Total/NA
Xylenes, Total	3000		120	28	ug/L	20		8260C/UST	Total/NA
Anthracene	0.19	J	0.51	0.10	ug/L	1		8270D	Total/NA
Benzo[a]anthracene	0.26	J	0.51	0.10	ug/L	1		8270D	Total/NA
Benzo[a]pyrene	0.20	J	0.51	0.10	ug/L	1		8270D	Total/NA
Benzo[b]fluoranthene	0.20	J	0.51	0.10	ug/L	1		8270D	Total/NA
Benzo[g,h,i]perylene	0.10	J	0.51	0.10	ug/L	1		8270D	Total/NA
Chrysene	0.30	J	0.51	0.10	ug/L	1		8270D	Total/NA
Fluorene	0.28	J	0.51	0.10	ug/L	1		8270D	Total/NA
Phenanthrene	1.0		0.51	0.10	ug/L	1		8270D	Total/NA
Pyrene	0.35	J	0.51	0.10	ug/L	1		8270D	Total/NA
Naphthalene - DL	380		5.1	1.0	ug/L	10		8270D	Total/NA
C5-C12 (1C)	31000		1000	280	ug/L	20		8015D	Total/NA
Methane (1C) - DL	19000		500	300	ug/L	100		RSK-175	Total/NA
>C12-C22 (1C)	1.6		0.095	0.035	mg/L	1		8015C	Total/NA
>C22-C44 (1C)	0.54		0.095	0.035	mg/L	1		8015C	Total/NA
Sulfate	21		5.0	1.5	mg/L	5		EPA 300.0 R2.1	Total/NA
Chloride	54		8.0	4.0	mg/L	20		EPA 300.0 R2.1	Total/NA
Calcium	190		0.20	0.096	mg/L	1		6010C	Total Recoverable
Iron	38		0.20	0.040	mg/L	1		6010C	Total Recoverable
Magnesium	68		0.10	0.040	mg/L	1		6010C	Total Recoverable
Potassium	15		0.50	0.20	mg/L	1		6010C	Total Recoverable
Sodium	76		1.0	0.24	mg/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	710		8.0	8.0	mg/L	1		2320B-2011	Total/NA
Ammonia-N	1.6	J	3.8	1.3	mg/L	1		4500 NH3 C-2011	Total/NA

Client Sample ID: TB-2020811 — Lab Sample ID: 410-10488-2

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample ID: CD-14-W-23.0-20200811
Lab Sample ID: 410-10488-1
Date Collected: 08/11/20 15:00
Matrix: Water
Date Received: 08/12/20 16:50

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**800**		100	20	ug/L			08/25/20 18:01	20
1,2-Dichloroethane	ND		20	6.0	ug/L			08/25/20 18:01	20
1,3,5-Trimethylbenzene	**320**		100	6.0	ug/L			08/25/20 18:01	20
Benzene	**18**	**J**	20	4.0	ug/L			08/25/20 18:01	20
Ethylbenzene	**1400**		20	8.0	ug/L			08/25/20 18:01	20
Isopropylbenzene	**54**	**J**	100	4.0	ug/L			08/25/20 18:01	20
Methyl tertiary butyl ether	ND		20	4.0	ug/L			08/25/20 18:01	20
Toluene	**700**		20	4.0	ug/L			08/25/20 18:01	20
Xylenes, Total	**3000**		120	28	ug/L			08/25/20 18:01	20
2-Methyl-2-propanol	ND		1000	240	ug/L			08/25/20 18:01	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*80 - 120*		*08/25/20 18:01*	*20*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*08/25/20 18:01*	*20*
Dibromofluoromethane (Surr)	*99*		*80 - 120*		*08/25/20 18:01*	*20*
Toluene-d8 (Surr)	*101*		*80 - 120*		*08/25/20 18:01*	*20*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**0.19**	**J**	0.51	0.10	ug/L		08/17/20 17:00	08/19/20 14:22	1
Benzo[a]anthracene	**0.26**	**J**	0.51	0.10	ug/L		08/17/20 17:00	08/19/20 14:22	1
Benzo[a]pyrene	**0.20**	**J**	0.51	0.10	ug/L		08/17/20 17:00	08/19/20 14:22	1
Benzo[b]fluoranthene	**0.20**	**J**	0.51	0.10	ug/L		08/17/20 17:00	08/19/20 14:22	1
Benzo[g,h,i]perylene	**0.10**	**J**	0.51	0.10	ug/L		08/17/20 17:00	08/19/20 14:22	1
Chrysene	**0.30**	**J**	0.51	0.10	ug/L		08/17/20 17:00	08/19/20 14:22	1
Fluorene	**0.28**	**J**	0.51	0.10	ug/L		08/17/20 17:00	08/19/20 14:22	1
Phenanthrene	**1.0**		0.51	0.10	ug/L		08/17/20 17:00	08/19/20 14:22	1
Pyrene	**0.35**	**J**	0.51	0.10	ug/L		08/17/20 17:00	08/19/20 14:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*80*		*44 - 102*	*08/17/20 17:00*	*08/19/20 14:22*	*1*
Nitrobenzene-d5 (Surr)	*81*		*38 - 113*	*08/17/20 17:00*	*08/19/20 14:22*	*1*
p-Terphenyl-d14 (Surr)	*74*		*34 - 128*	*08/17/20 17:00*	*08/19/20 14:22*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**380**		5.1	1.0	ug/L		08/17/20 17:00	08/19/20 15:48	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*88*		*44 - 102*	*08/17/20 17:00*	*08/19/20 15:48*	*10*
Nitrobenzene-d5 (Surr)	*85*		*38 - 113*	*08/17/20 17:00*	*08/19/20 15:48*	*10*
p-Terphenyl-d14 (Surr)	*73*		*34 - 128*	*08/17/20 17:00*	*08/19/20 15:48*	*10*

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C12 (1C)	**31000**		1000	280	ug/L			08/19/20 16:50	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (fid) (1C)	*108*		*63 - 135*		*08/19/20 16:50*	*20*

Client Sample ID: CD-14-W-23.0-20200811
Lab Sample ID: 410-10488-1

Date Collected: 08/11/20 15:00
Matrix: Water

Date Received: 08/12/20 16:50

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		08/14/20 08:53	08/14/20 12:34	1
Ethene (1C)	ND		5.0	1.0	ug/L		08/14/20 08:53	08/14/20 12:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*75*		*28 - 140*	*08/14/20 08:53*	*08/14/20 12:34*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**19000**		500	300	ug/L		08/15/20 10:11	08/15/20 15:19	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*99*		*28 - 140*	*08/15/20 10:11*	*08/15/20 15:19*	*100*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (2C)	ND	*H ^c	0.030	0.0099	ug/L		08/16/20 12:45	08/17/20 21:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*122*		*46 - 136*	*08/16/20 12:45*	*08/17/20 21:06*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*71*		*46 - 136*	*08/16/20 12:45*	*08/17/20 21:06*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	**1.6**		0.095	0.035	mg/L		08/17/20 17:54	08/18/20 12:27	1
>C22-C44 (1C)	**0.54**		0.095	0.035	mg/L		08/17/20 17:54	08/18/20 12:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*100*		*21 - 116*	*08/17/20 17:54*	*08/18/20 12:27*	*1*
o- terphenyl (Surr) (1C)	*138*	*XH*	*51 - 126*	*08/17/20 17:54*	*08/18/20 12:27*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND		0.50	0.25	mg/L			08/13/20 12:17	5

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**21**		5.0	1.5	mg/L			08/13/20 12:17	5
Chloride	**54**		8.0	4.0	mg/L			09/04/20 00:06	20

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**190**		0.20	0.096	mg/L		08/13/20 02:34	08/19/20 19:33	1
Iron	**38**		0.20	0.040	mg/L		08/13/20 02:34	08/19/20 19:33	1
Magnesium	**68**		0.10	0.040	mg/L		08/13/20 02:34	08/19/20 19:33	1
Potassium	**15**		0.50	0.20	mg/L		08/13/20 02:34	08/19/20 19:33	1
Sodium	**76**		1.0	0.24	mg/L		08/13/20 02:34	08/19/20 19:33	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		08/18/20 13:31	08/18/20 18:54	1

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-10488-1

Client Sample ID: CD-14-W-23.0-20200811

Lab Sample ID: 410-10488-1

Date Collected: 08/11/20 15:00
Matrix: Water
Date Received: 08/12/20 16:50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**710**		8.0	8.0	mg/L			08/14/20 00:12	1
Ammonia-N	**1.6**	**J**	3.8	1.3	mg/L		08/18/20 10:39	08/18/20 11:31	1
Sulfide	ND		0.30	0.10	mg/L			08/13/20 09:59	1

Client Sample ID: TB-2020811

Lab Sample ID: 410-10488-2

Date Collected: 08/11/20 00:00
Matrix: Water
Date Received: 08/12/20 16:50

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C12 (1C)	ND		50	14	ug/L			08/19/20 14:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (fid) (1C)	*88*		*63 - 135*		*08/19/20 14:33*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.033	0.011	ug/L		08/22/20 06:41	08/26/20 03:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*66*		*46 - 136*	*08/22/20 06:41*	*08/26/20 03:44*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*61*		*46 - 136*	*08/22/20 06:41*	*08/26/20 03:44*	*1*

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-10488-1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-10488-1	CD-14-W-23.0-20200811	87	93	99	101
LCS 410-37022/4	Lab Control Sample	88	93	96	98
LCSD 410-37022/5	Lab Control Sample Dup	89	92	95	99
MB 410-37022/7	Method Blank	80	85	84	97

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(44-102)	(38-113)	(34-128)
410-10488-1 - DL	CD-14-W-23.0-20200811	88	85	73
410-10488-1	CD-14-W-23.0-20200811	80	81	74
LCS 410-34066/2-A	Lab Control Sample	78	83	84
MB 410-34066/1-A	Method Blank	64	74	70

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
		TFT-F1
Lab Sample ID	Client Sample ID	(63-135)
410-10488-1	CD-14-W-23.0-20200811	108
410-10488-2	TB-2020811	88
LCS 410-34093/5	Lab Control Sample	85
LCSD 410-34093/6	Lab Control Sample Dup	81
MB 410-34093/4	Method Blank	86

Surrogate Legend

TFT-F = a,a,a-Trifluorotoluene (fid)

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
		Propene1
Lab Sample ID	Client Sample ID	(28-140)
410-10488-1	CD-14-W-23.0-20200811	75
410-10488-1 - DL	CD-14-W-23.0-20200811	99
LCS 410-33216/2-A	Lab Control Sample	95
LCS 410-33545/2-A	Lab Control Sample	105

Surrogate Summary

Client: Stantec Consulting Corp. Job ID: 410-10488-1
Project/Site: PHL Penrose Drilling Sampling

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)								
Lab Sample ID	Client Sample ID	Propene1 (28-140)								
LCSD 410-33216/3-A	Lab Control Sample Dup	96								
LCSD 410-33545/3-A	Lab Control Sample Dup	102								
MB 410-33216/1-A	Method Blank	96								
MB 410-33545/1-A	Method Blank	101								

Surrogate Legend

Propene = Propene

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)								
Lab Sample ID	Client Sample ID	1122TCA1 (46-136)	1122TCA2 (46-136)							
410-10488-1	CD-14-W-23.0-20200811	122	71							
410-10488-2	TB-2020811	66	61							
LCS 410-33694/2-A	Lab Control Sample	48								
LCS 410-36116/2-A	Lab Control Sample	67	61							
LCSD 410-33694/3-A	Lab Control Sample Dup	48								
LCSD 410-36116/3-A	Lab Control Sample Dup	70	61							
MB 410-33694/1-A	Method Blank	39 XL								
MB 410-36116/1-A	Method Blank	65	59							

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)								
Lab Sample ID	Client Sample ID	CBNZ1 (21-116)	OTP1 (51-126)							
410-10488-1	CD-14-W-23.0-20200811	100	138 XH							
LCS 410-34115/2-A	Lab Control Sample	51	98							
LCSD 410-34115/3-A	Lab Control Sample Dup	53	96							
MB 410-34115/1-A	Method Blank	63	92							

Surrogate Legend

CBNZ = Chlorobenzene (Surr)

OTP = o- terphenyl (Surr)

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-37022/7
Matrix: Water
Analysis Batch: 37022

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			08/25/20 16:28	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			08/25/20 16:28	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			08/25/20 16:28	1
Benzene	ND		1.0	0.20	ug/L			08/25/20 16:28	1
Ethylbenzene	ND		1.0	0.40	ug/L			08/25/20 16:28	1
Isopropylbenzene	ND		5.0	0.20	ug/L			08/25/20 16:28	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			08/25/20 16:28	1
Toluene	ND		1.0	0.20	ug/L			08/25/20 16:28	1
Xylenes, Total	ND		6.0	1.4	ug/L			08/25/20 16:28	1
2-Methyl-2-propanol	ND		50	12	ug/L			08/25/20 16:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*80*		*80 - 120*		*08/25/20 16:28*	*1*
4-Bromofluorobenzene (Surr)	*85*		*80 - 120*		*08/25/20 16:28*	*1*
Dibromofluoromethane (Surr)	*84*		*80 - 120*		*08/25/20 16:28*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*08/25/20 16:28*	*1*

Lab Sample ID: LCS 410-37022/4
Matrix: Water
Analysis Batch: 37022

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2,4-Trimethylbenzene			20.0	16.7		ug/L		83	75 - 120		
1,2-Dichloroethane			20.0	15.6		ug/L		78	73 - 124		
1,3,5-Trimethylbenzene			20.0	16.4		ug/L		82	75 - 120		
Benzene			20.0	17.5		ug/L		88	80 - 120		
Ethylbenzene			20.0	16.7		ug/L		84	80 - 120		
Isopropylbenzene			20.0	16.7		ug/L		83	80 - 120		
Methyl tertiary butyl ether			20.0	17.2		ug/L		86	69 - 122		
Naphthalene			20.0	18.4		ug/L		92	53 - 124		
Toluene			20.0	17.2		ug/L		86	80 - 120		
Xylenes, Total			60.0	52.3		ug/L		87	80 - 120		
2-Methyl-2-propanol			200	152		ug/L		76	60 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*80 - 120*
Toluene-d8 (Surr)	*98*		*80 - 120*

Lab Sample ID: LCSD 410-37022/5
Matrix: Water
Analysis Batch: 37022

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene			20.0	17.0		ug/L		85	75 - 120	2	30
1,2-Dichloroethane			20.0	15.9		ug/L		79	73 - 124	2	30
1,3,5-Trimethylbenzene			20.0	16.7		ug/L		83	75 - 120	2	30

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-37022/5
Matrix: Water
Analysis Batch: 37022

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	20.0	17.9		ug/L		90	80 - 120	2	30
Ethylbenzene	20.0	17.3		ug/L		86	80 - 120	3	30
Isopropylbenzene	20.0	17.3		ug/L		86	80 - 120	3	30
Methyl tertiary butyl ether	20.0	17.4		ug/L		87	69 - 122	1	30
Naphthalene	20.0	17.2		ug/L		86	53 - 124	6	30
Toluene	20.0	17.7		ug/L		89	80 - 120	3	30
Xylenes, Total	60.0	53.4		ug/L		89	80 - 120	2	30
2-Methyl-2-propanol	200	155		ug/L		77	60 - 130	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*89*		*80 - 120*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*80 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-34066/1-A
Matrix: Water
Analysis Batch: 34272

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 34066

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		08/17/20 17:00	08/18/20 09:53	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		08/17/20 17:00	08/18/20 09:53	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		08/17/20 17:00	08/18/20 09:53	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		08/17/20 17:00	08/18/20 09:53	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		08/17/20 17:00	08/18/20 09:53	1
Chrysene	ND		0.50	0.10	ug/L		08/17/20 17:00	08/18/20 09:53	1
Fluorene	ND		0.50	0.10	ug/L		08/17/20 17:00	08/18/20 09:53	1
Naphthalene	ND		0.50	0.10	ug/L		08/17/20 17:00	08/18/20 09:53	1
Phenanthrene	ND		0.50	0.10	ug/L		08/17/20 17:00	08/18/20 09:53	1
Pyrene	ND		0.50	0.10	ug/L		08/17/20 17:00	08/18/20 09:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*64*		*44 - 102*	*08/17/20 17:00*	*08/18/20 09:53*	*1*
Nitrobenzene-d5 (Surr)	*74*		*38 - 113*	*08/17/20 17:00*	*08/18/20 09:53*	*1*
p-Terphenyl-d14 (Surr)	*70*		*34 - 128*	*08/17/20 17:00*	*08/18/20 09:53*	*1*

Lab Sample ID: LCS 410-34066/2-A
Matrix: Water
Analysis Batch: 34272

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 34066

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.1	45.3		ug/L		90	67 - 116
Benzo[a]anthracene	50.0	50.4		ug/L		101	68 - 123
Benzo[a]pyrene	50.2	45.1		ug/L		90	71 - 117
Benzo[b]fluoranthene	50.1	46.7		ug/L		93	69 - 121
Benzo[g,h,i]perylene	50.1	48.0		ug/L		96	60 - 119

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-34066/2-A
Matrix: Water
Analysis Batch: 34272

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 34066

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chrysene	50.0	47.8		ug/L		95	65 - 121
Fluorene	50.1	43.6		ug/L		87	56 - 115
Naphthalene	50.4	39.5		ug/L		78	51 - 102
Phenanthrene	50.2	46.0		ug/L		92	65 - 113
Pyrene	50.4	43.9		ug/L		87	65 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*78*		*44 - 102*
Nitrobenzene-d5 (Surr)	*83*		*38 - 113*
p-Terphenyl-d14 (Surr)	*84*		*34 - 128*

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 410-34093/4
Matrix: Water
Analysis Batch: 34093

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C12 (1C)	ND		50	14	ug/L			08/19/20 12:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (fid) (1C)	*86*		*63 - 135*		*08/19/20 12:43*	*1*

Lab Sample ID: LCS 410-34093/5
Matrix: Water
Analysis Batch: 34093

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C5-C12 (1C)	1100	1060		ug/L		97	66 - 128

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene (fid) (1C)	*85*		*63 - 135*

Lab Sample ID: LCSD 410-34093/6
Matrix: Water
Analysis Batch: 34093

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C5-C12 (1C)	1100	1060		ug/L		96	66 - 128	0	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene (fid) (1C)	*81*		*63 - 135*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-33216/1-A
Matrix: Water
Analysis Batch: 33222

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 33216

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		08/14/20 08:53	08/14/20 10:24	1
Ethene (1C)	ND		5.0	1.0	ug/L		08/14/20 08:53	08/14/20 10:24	1
Methane (1C)	ND		5.0	3.0	ug/L		08/14/20 08:53	08/14/20 10:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*96*		*28 - 140*	*08/14/20 08:53*	*08/14/20 10:24*	*1*

Lab Sample ID: LCS 410-33216/2-A
Matrix: Water
Analysis Batch: 33222

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 33216

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	53.5		ug/L		90	85 - 115		
Ethene (1C)			60.4	55.4		ug/L		92	83 - 115		
Methane (1C)			59.4	58.5		ug/L		98	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*95*		*28 - 140*

Lab Sample ID: LCSD 410-33216/3-A
Matrix: Water
Analysis Batch: 33222

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 33216

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	53.9		ug/L		91	85 - 115	1	20
Ethene (1C)			60.4	55.7		ug/L		92	83 - 115	1	20
Methane (1C)			59.4	58.3		ug/L		98	85 - 115	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*96*		*28 - 140*

Lab Sample ID: MB 410-33545/1-A
Matrix: Water
Analysis Batch: 33566

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 33545

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		08/15/20 10:11	08/15/20 11:08	1
Ethene (1C)	ND		5.0	1.0	ug/L		08/15/20 10:11	08/15/20 11:08	1
Methane (1C)	ND		5.0	3.0	ug/L		08/15/20 10:11	08/15/20 11:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*101*		*28 - 140*	*08/15/20 10:11*	*08/15/20 11:08*	*1*

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCS 410-33545/2-A
Matrix: Water
Analysis Batch: 33566

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 33545

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	60.1		ug/L		101	85 - 115		
Ethene (1C)			60.4	61.2		ug/L		101	83 - 115		
Methane (1C)			59.4	63.9		ug/L		108	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*105*		*28 - 140*

Lab Sample ID: LCSD 410-33545/3-A
Matrix: Water
Analysis Batch: 33566

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 33545

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	57.0		ug/L		96	85 - 115	5	20
Ethene (1C)			60.4	58.9		ug/L		97	83 - 115	4	20
Methane (1C)			59.4	61.8		ug/L		104	85 - 115	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*102*		*28 - 140*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-33694/1-A
Matrix: Water
Analysis Batch: 34117

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 33694

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		08/16/20 12:45	08/17/20 18:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*39*	*XL*	*46 - 136*	*08/16/20 12:45*	*08/17/20 18:50*	*1*

Lab Sample ID: LCS 410-33694/2-A
Matrix: Water
Analysis Batch: 34117

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 33694

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.192	*H	ug/L		150	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*48*		*46 - 136*

Lab Sample ID: LCSD 410-33694/3-A
Matrix: Water
Analysis Batch: 34117

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 33694

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.182	*H	ug/L		142	60 - 140	5	20

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,1,2,2-Tetrachloroethane (Surr) (1C)	48		46 - 136

Lab Sample ID: MB 410-36116/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 37421 — **Prep Batch: 36116**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		08/22/20 06:41	08/26/20 02:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane (Surr) (1C)	65		46 - 136	08/22/20 06:41	08/26/20 02:54	1
1,1,2,2-Tetrachloroethane (Surr) (2C)	59		46 - 136	08/22/20 06:41	08/26/20 02:54	1

Lab Sample ID: LCS 410-36116/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 37421 — **Prep Batch: 36116**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.130		ug/L		102	60 - 140		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,1,2,2-Tetrachloroethane (Surr) (1C)	67		46 - 136
1,1,2,2-Tetrachloroethane (Surr) (2C)	61		46 - 136

Lab Sample ID: LCSD 410-36116/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 37421 — **Prep Batch: 36116**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.133		ug/L		104	60 - 140	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,1,2,2-Tetrachloroethane (Surr) (1C)	70		46 - 136
1,1,2,2-Tetrachloroethane (Surr) (2C)	61		46 - 136

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 410-34115/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 34328 — **Prep Batch: 34115**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		0.10	0.037	mg/L		08/17/20 17:54	08/18/20 11:23	1
>C22-C44 (1C)	ND		0.10	0.037	mg/L		08/17/20 17:54	08/18/20 11:23	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Chlorobenzene (Surr) (1C)	63		21 - 116	08/17/20 17:54	08/18/20 11:23	1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: MB 410-34115/1-A
Matrix: Water
Analysis Batch: 34328

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 34115

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o- terphenyl (Surr) (1C)	92		51 - 126	08/17/20 17:54	08/18/20 11:23	1

Lab Sample ID: LCS 410-34115/2-A
Matrix: Water
Analysis Batch: 34328

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 34115

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
DRO (C10-C28) (1C)			0.800	0.555		mg/L		69	48 - 116		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Chlorobenzene (Surr) (1C)	51		21 - 116
o- terphenyl (Surr) (1C)	98		51 - 126

Lab Sample ID: LCSD 410-34115/3-A
Matrix: Water
Analysis Batch: 34328

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 34115

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (C10-C28) (1C)			0.800	0.555		mg/L		69	48 - 116	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Chlorobenzene (Surr) (1C)	53		21 - 116
o- terphenyl (Surr) (1C)	96		51 - 126

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Lab Sample ID: MB 410-32851/15
Matrix: Water
Analysis Batch: 32851

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND		0.10	0.050	mg/L			08/13/20 15:20	1

Lab Sample ID: LCS 410-32851/14
Matrix: Water
Analysis Batch: 32851

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrogen, Nitrate			0.750	0.683		mg/L		91	90 - 110		

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 410-32850/15
Matrix: Water
Analysis Batch: 32850

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1.0	0.30	mg/L			08/13/20 15:20	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 410-32850/15
Matrix: Water
Analysis Batch: 32850

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.40	0.20	mg/L			08/13/20 15:20	1

Lab Sample ID: LCS 410-32850/14
Matrix: Water
Analysis Batch: 32850

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	7.50	7.23		mg/L		96	90 - 110
Chloride	3.00	3.07		mg/L		102	90 - 110

Lab Sample ID: MB 410-40851/4
Matrix: Water
Analysis Batch: 40851

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1.0	0.30	mg/L			09/03/20 18:31	1
Chloride	ND		0.40	0.20	mg/L			09/03/20 18:31	1

Lab Sample ID: LCS 410-40851/3
Matrix: Water
Analysis Batch: 40851

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	7.50	7.91		mg/L		105	90 - 110
Chloride	3.00	3.08		mg/L		103	90 - 110

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-32642/1-A
Matrix: Water
Analysis Batch: 35083

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 32642

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.20	0.096	mg/L		08/13/20 02:34	08/19/20 17:52	1
Iron	ND		0.20	0.040	mg/L		08/13/20 02:34	08/19/20 17:52	1
Magnesium	ND		0.10	0.040	mg/L		08/13/20 02:34	08/19/20 17:52	1
Potassium	ND		0.50	0.20	mg/L		08/13/20 02:34	08/19/20 17:52	1
Sodium	ND		1.0	0.24	mg/L		08/13/20 02:34	08/19/20 17:52	1

Lab Sample ID: LCS 410-32642/2-A
Matrix: Water
Analysis Batch: 35083

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 32642

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	0.400	0.437		mg/L		109	80 - 120
Iron	0.402	0.439		mg/L		109	80 - 120
Magnesium	0.200	0.224		mg/L		112	80 - 120
Potassium	5.60	6.02		mg/L		107	80 - 120
Sodium	2.00	2.19		mg/L		110	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 410-34506/1-A
Matrix: Water
Analysis Batch: 34786

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 34506

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		08/18/20 13:31	08/18/20 18:25	1

Lab Sample ID: LCS 410-34506/2-A
Matrix: Water
Analysis Batch: 34786

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 34506

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	4.92	4.82		ug/L		98	90 - 115

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 410-33366/58
Matrix: Water
Analysis Batch: 33366

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8.0	8.0	mg/L			08/13/20 22:48	1

Lab Sample ID: LCS 410-33366/59
Matrix: Water
Analysis Batch: 33366

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	189	167		mg/L		89	82 - 106

Method: 4500 NH3 C-2011 - Ammonia

Lab Sample ID: MB 410-34436/1-A
Matrix: Water
Analysis Batch: 34455

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 34436

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia-N	ND		0.75	0.25	mg/L		08/18/20 10:39	08/18/20 11:31	1

Lab Sample ID: LCS 410-34436/2-A
Matrix: Water
Analysis Batch: 34455

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 34436

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia-N	500	473		mg/L		95	93 - 100

Method: 4500 S2 D-2011 - Sulfide, Total

Lab Sample ID: MB 410-32804/1
Matrix: Water
Analysis Batch: 32804

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.30	0.10	mg/L			08/13/20 09:59	1

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-10488-1

Method: 4500 S2 D-2011 - Sulfide, Total (Continued)

Lab Sample ID: LCS 410-32804/13
Matrix: Water
Analysis Batch: 32804

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	0.999	1.08		mg/L		108	90 - 110

GC/MS VOA

Analysis Batch: 37022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10488-1	CD-14-W-23.0-20200811	Total/NA	Water	8260C/UST	
MB 410-37022/7	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-37022/4	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-37022/5	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

GC/MS Semi VOA

Prep Batch: 34066

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10488-1 - DL	CD-14-W-23.0-20200811	Total/NA	Water	3510C	
410-10488-1	CD-14-W-23.0-20200811	Total/NA	Water	3510C	
MB 410-34066/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-34066/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 34272

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-34066/1-A	Method Blank	Total/NA	Water	8270D	34066
LCS 410-34066/2-A	Lab Control Sample	Total/NA	Water	8270D	34066

Analysis Batch: 34889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10488-1	CD-14-W-23.0-20200811	Total/NA	Water	8270D	34066
410-10488-1 - DL	CD-14-W-23.0-20200811	Total/NA	Water	8270D	34066

GC VOA

Prep Batch: 33216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10488-1	CD-14-W-23.0-20200811	Total/NA	Water	RSK-175	
MB 410-33216/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-33216/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-33216/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 33222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10488-1	CD-14-W-23.0-20200811	Total/NA	Water	RSK-175	33216
MB 410-33216/1-A	Method Blank	Total/NA	Water	RSK-175	33216
LCS 410-33216/2-A	Lab Control Sample	Total/NA	Water	RSK-175	33216
LCSD 410-33216/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	33216

Prep Batch: 33545

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10488-1 - DL	CD-14-W-23.0-20200811	Total/NA	Water	RSK-175	
MB 410-33545/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-33545/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-33545/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 33566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10488-1 - DL	CD-14-W-23.0-20200811	Total/NA	Water	RSK-175	33545
MB 410-33545/1-A	Method Blank	Total/NA	Water	RSK-175	33545
LCS 410-33545/2-A	Lab Control Sample	Total/NA	Water	RSK-175	33545

GC VOA (Continued)

Analysis Batch: 33566 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 410-33545/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	33545

Analysis Batch: 34093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10488-1	CD-14-W-23.0-20200811	Total/NA	Water	8015D	
410-10488-2	TB-2020811	Total/NA	Water	8015D	
MB 410-34093/4	Method Blank	Total/NA	Water	8015D	
LCS 410-34093/5	Lab Control Sample	Total/NA	Water	8015D	
LCSD 410-34093/6	Lab Control Sample Dup	Total/NA	Water	8015D	

GC Semi VOA

Prep Batch: 33694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10488-1	CD-14-W-23.0-20200811	Total/NA	Water	8011	
MB 410-33694/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-33694/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-33694/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Prep Batch: 34115

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10488-1	CD-14-W-23.0-20200811	Total/NA	Water	3510C	
MB 410-34115/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-34115/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-34115/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 34117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10488-1	CD-14-W-23.0-20200811	Total/NA	Water	8011	33694
MB 410-33694/1-A	Method Blank	Total/NA	Water	8011	33694
LCS 410-33694/2-A	Lab Control Sample	Total/NA	Water	8011	33694
LCSD 410-33694/3-A	Lab Control Sample Dup	Total/NA	Water	8011	33694

Analysis Batch: 34328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10488-1	CD-14-W-23.0-20200811	Total/NA	Water	8015C	34115
MB 410-34115/1-A	Method Blank	Total/NA	Water	8015C	34115
LCS 410-34115/2-A	Lab Control Sample	Total/NA	Water	8015C	34115
LCSD 410-34115/3-A	Lab Control Sample Dup	Total/NA	Water	8015C	34115

Prep Batch: 36116

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10488-2	TB-2020811	Total/NA	Water	8011	
MB 410-36116/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-36116/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-36116/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 37421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10488-2	TB-2020811	Total/NA	Water	8011	36116
MB 410-36116/1-A	Method Blank	Total/NA	Water	8011	36116

GC Semi VOA (Continued)

Analysis Batch: 37421 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-36116/2-A	Lab Control Sample	Total/NA	Water	8011	36116
LCSD 410-36116/3-A	Lab Control Sample Dup	Total/NA	Water	8011	36116

HPLC/IC

Analysis Batch: 32850

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10488-1	CD-14-W-23.0-20200811	Total/NA	Water	EPA 300.0 R2.1	
MB 410-32850/15	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-32850/14	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 32851

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10488-1	CD-14-W-23.0-20200811	Total/NA	Water	EPA 300.0 R2.1	
MB 410-32851/15	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-32851/14	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 40851

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10488-1	CD-14-W-23.0-20200811	Total/NA	Water	EPA 300.0 R2.1	
MB 410-40851/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-40851/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 32642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10488-1	CD-14-W-23.0-20200811	Total Recoverable	Water	3005A	
MB 410-32642/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-32642/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Filtration Batch: 34389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10488-1	CD-14-W-23.0-20200811	Dissolved	Water	Filtration	

Prep Batch: 34506

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10488-1	CD-14-W-23.0-20200811	Dissolved	Water	Non-Digest Prep	34389
MB 410-34506/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-34506/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	

Analysis Batch: 34786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10488-1	CD-14-W-23.0-20200811	Dissolved	Water	6020A	34506
MB 410-34506/1-A	Method Blank	Total/NA	Water	6020A	34506
LCS 410-34506/2-A	Lab Control Sample	Total/NA	Water	6020A	34506

Analysis Batch: 35083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10488-1	CD-14-W-23.0-20200811	Total Recoverable	Water	6010C	32642
MB 410-32642/1-A	Method Blank	Total Recoverable	Water	6010C	32642
LCS 410-32642/2-A	Lab Control Sample	Total Recoverable	Water	6010C	32642

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-10488-1

General Chemistry

Analysis Batch: 32804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10488-1	CD-14-W-23.0-20200811	Total/NA	Water	4500 S2 D-2011	
MB 410-32804/1	Method Blank	Total/NA	Water	4500 S2 D-2011	
LCS 410-32804/13	Lab Control Sample	Total/NA	Water	4500 S2 D-2011	

Analysis Batch: 33366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10488-1	CD-14-W-23.0-20200811	Total/NA	Water	2320B-2011	
MB 410-33366/58	Method Blank	Total/NA	Water	2320B-2011	
LCS 410-33366/59	Lab Control Sample	Total/NA	Water	2320B-2011	

Prep Batch: 34436

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10488-1	CD-14-W-23.0-20200811	Total/NA	Water	4500 NH3 B-2011	
MB 410-34436/1-A	Method Blank	Total/NA	Water	4500 NH3 B-2011	
LCS 410-34436/2-A	Lab Control Sample	Total/NA	Water	4500 NH3 B-2011	

Analysis Batch: 34455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-10488-1	CD-14-W-23.0-20200811	Total/NA	Water	4500 NH3 C-2011	34436
MB 410-34436/1-A	Method Blank	Total/NA	Water	4500 NH3 C-2011	34436
LCS 410-34436/2-A	Lab Control Sample	Total/NA	Water	4500 NH3 C-2011	34436

Lab Chronicle

Client: Stantec Consulting Corp.
Job ID: 410-10488-1
Project/Site: PHL Penrose Drilling Sampling

Client Sample ID: CD-14-W-23.0-20200811
Lab Sample ID: 410-10488-1

Date Collected: 08/11/20 15:00
Matrix: Water
Date Received: 08/12/20 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		20	37022	08/25/20 18:01	UKAD	ELLE
Total/NA	Prep	3510C			34066	08/17/20 17:00	QQ3P	ELLE
Total/NA	Analysis	8270D		1	34889	08/19/20 14:22	ULM3	ELLE
Total/NA	Prep	3510C	DL		34066	08/17/20 17:00	QQ3P	ELLE
Total/NA	Analysis	8270D	DL	10	34889	08/19/20 15:48	ULM3	ELLE
Total/NA	Analysis	8015D		20	34093	08/19/20 16:50	UMDJ	ELLE
Total/NA	Prep	RSK-175	DL		33545	08/15/20 10:11	IYN5	ELLE
Total/NA	Analysis	RSK-175	DL	100	33566	08/15/20 15:19	IYN5	ELLE
Total/NA	Prep	RSK-175			33216	08/14/20 08:53	IYN5	ELLE
Total/NA	Analysis	RSK-175		1	33222	08/14/20 12:34	IYN5	ELLE
Total/NA	Prep	8011			33694	08/16/20 12:45	GC5R	ELLE
Total/NA	Analysis	8011		1	34117	08/17/20 21:06	AC3T	ELLE
Total/NA	Prep	3510C			34115	08/17/20 17:54	SJ89	ELLE
Total/NA	Analysis	8015C		1	34328	08/18/20 12:27	YHQ2	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	32850	08/13/20 12:17	GJ35	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	32851	08/13/20 12:17	GJ35	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		20	40851	09/04/20 00:06	IGI3	ELLE
Total Recoverable	Prep	3005A			32642	08/13/20 02:34	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	35083	08/19/20 19:33	UCIG	ELLE
Dissolved	Filtration	Filtration			34389	08/18/20 09:00	UAMX	ELLE
Dissolved	Prep	Non-Digest Prep			34506	08/18/20 13:31	UJLA	ELLE
Dissolved	Analysis	6020A		1	34786	08/18/20 18:54	BMB	ELLE
Total/NA	Analysis	2320B-2011		1	33366	08/14/20 00:12	JB	ELLE
Total/NA	Prep	4500 NH3 B-2011			34436	08/18/20 10:39	P8DZ	ELLE
Total/NA	Analysis	4500 NH3 C-2011		1	34455	08/18/20 11:31	P8DZ	ELLE
Total/NA	Analysis	4500 S2 D-2011		1	32804	08/13/20 09:59	P8DZ	ELLE

Client Sample ID: TB-2020811
Lab Sample ID: 410-10488-2

Date Collected: 08/11/20 00:00
Matrix: Water
Date Received: 08/12/20 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015D		1	34093	08/19/20 14:33	UMDJ	ELLE
Total/NA	Prep	8011			36116	08/22/20 06:41	UKQ8	ELLE
Total/NA	Analysis	8011		1	37421	08/26/20 03:44	JH5B	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp. Job ID: 410-10488-1
Project/Site: PHL Penrose Drilling Sampling

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015C	3510C	Water	>C12-C22 (1C)
8015C	3510C	Water	>C22-C44 (1C)

Method Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-10488-1

Method	Method Description	Protocol	Laboratory
8260C/UST	Volatile Organic Compounds (GC/MS)	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
8015D	Gasoline Range Organics (GRO) (GC)	SW846	ELLE
RSK-175	Dissolved Gases (GC)	RSK	ELLE
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	ELLE
EPA 300.0 R2.1	Anions, Ion Chromatgraphy	EPA	ELLE
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	ELLE
6010C	Metals (ICP)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
2320B-2011	Alkalinity, Total	SM	ELLE
4500 NH3 C-2011	Ammonia	SM	ELLE
4500 S2 D-2011	Sulfide, Total	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
4500 NH3 B-2011	Ammonia, Distillation	SM	ELLE
5030C	Purge and Trap	SW846	ELLE
8011	Microextraction	SW846	ELLE
Filtration	Sample Filtration	None	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique , RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Job ID: 410-10488-1
Project/Site: PHL Penrose Drilling Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-10488-1	CD-14-W-23.0-20200811	Water	08/11/20 15:00	08/12/20 16:50	
410-10488-2	TB-2020811	Water	08/11/20 00:00	08/12/20 16:50	

Environmental Ana … in of Custody

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410-10488 Chain of Custody

…atories Environmental use only

Sample # _____

COC #610334

Client Information

Client: Evergreen c/o Stantec	Acct. #: 166657
Project Name/#: PHL Penrose Drilling Sampling	PWSID #:
Project Manager: Andrew Klingbeil	PO #: 213402602
Sampler: Dane Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ | Potable ☐ Ground ☒ NPDES ☐ Surface ☐ Water | Other: trip blank

Analysis Requested

Preservation and Filtration Codes: H | N | O | H | S | H

For Lab Use Only
FSC: _____
SCR#: _____

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks
* refer to Evergreen Short List for list of analytes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Sediment	Tissue	Potable	Ground	NPDES	Surface	Water	Other	Total # of Containers	Custom TPH w/ Ranges	TPH-GRO 8260 / Moisture	Metal 6010 / Lead (dissolved 6020 / total 6010B)	Sulfate	Chloride, Nitrate Nitrogen, Sulfate	Volatile Headspace Hydrocarbons	Total Alkalinity to 4.5	Ammonia Nitrogen	*Short List VOCs 8260 including TPH + EDB 8011	*Short List SVOCs 8270
CD-14-W-23-20200811	8/11/20	1500	X									X		17	X	X	X	X	X	X	X	X	X	X
TB-20200811	6/17/20	—											X	2									X	

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: andrew.klingbeil@stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)
Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13
NYSDEC Category A or B | MA MCP | CT RCP

Relinquished by	Date	Time	Received by	Date	Time
	8/12/20	1105		8-12-20	1105
	8-12-20	1139			

EDD Required? ~~Yes~~ No
If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:
UPS _____ FedEx _____ Other _____

Temperature upon receipt 1.1 °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT https://www.eurofinsus.com/coc
The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0919

CJ

9/10/2020

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-10488-1

Login Number: 10488

List Source: Eurofins Lancaster Laboratories Env

List Number: 1

Creator: Jeremiah, Cory T

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	True	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-12128-1
Client Project/Site: PHL Penrose Drilling Sampling

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Andrew Klingbeil

Authorized for release by:
9/14/2020 12:15:08 PM

Amek Carter, Project Manager
(717)556-7252
amekcarter@eurofinsus.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

* QC recoveries that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result.

* Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.

* Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANACASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



Amek Carter
Project Manager
9/14/2020 12:15:08 PM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 6
Client Sample Results 7
Surrogate Summary 8
QC Sample Results 9
QC Association Summary 10
Lab Chronicle 11
Certification Summary 12
Method Summary 13
Sample Summary 14
Chain of Custody 15
Receipt Checklists 17

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-12128-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
H3	Sample was received and analyzed past holding time.
XH	Surrogate recovery is above control limits
XL	Surrogate recovery is below control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-12128-1

Job ID: 410-12128-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-12128-1

Receipt
The samples were received on 8/27/2020 4:56 PM; the samples arrived in good condition, and, where required, properly preserved and on ice.

Diesel Range Organics
Method 8015C_DRO: The following sample(s) was received with less than 2 days remaining on the holding time. It was received out of hold. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: CD-3-W-25.0-20200728 (410-12128-1) and CD-3-W-82.0-20200730 (410-12128-2).

Method 8015C_DRO: Surrogate Chlorobenzene recovery for the following sample was outside control limits: CD-3-W-25.0-20200728 (410-12128-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015C_DRO: The following sample(s) was prepared outside of preparation holding time for the first trial. Surrogate o-terphenyl was outside control limits and a re-extraction was performed. The second trial surrogate is within control limits. Results are reported from the first trial. CD-3-W-82.0-20200730 (410-12128-2)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-12128-1

Client Sample ID: CD-3-W-25.0-20200728 — Lab Sample ID: 410-12128-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
>C12-C22 (1C)	0.69	H H3	0.095	0.035	mg/L	1		8015C	Total/NA
>C22-C44 (1C)	0.12	H H3	0.095	0.035	mg/L	1		8015C	Total/NA

Client Sample ID: CD-3-W-82.0-20200730 — Lab Sample ID: 410-12128-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
>C12-C22 (1C)	1.1	H H3	0.095	0.035	mg/L	1		8015C	Total/NA
>C22-C44 (1C)	0.29	H H3	0.095	0.035	mg/L	1		8015C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CD-3-W-25.0-20200728

Lab Sample ID: 410-12128-1

Date Collected: 07/28/20 10:10

Matrix: Water

Date Received: 08/27/20 16:56

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	0.69	H H3	0.095	0.035	mg/L		08/29/20 23:02	09/01/20 16:32	1
>C22-C44 (1C)	0.12	H H3	0.095	0.035	mg/L		08/29/20 23:02	09/01/20 16:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*304*	*XH*	*21 - 116*	*08/29/20 23:02*	*09/01/20 16:32*	*1*
o- terphenyl (Surr) (1C)	*91*		*51 - 126*	*08/29/20 23:02*	*09/01/20 16:32*	*1*

Client Sample ID: CD-3-W-82.0-20200730

Lab Sample ID: 410-12128-2

Date Collected: 07/30/20 11:45

Matrix: Water

Date Received: 08/27/20 16:56

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	1.1	H H3	0.095	0.035	mg/L		08/29/20 23:02	09/01/20 16:53	1
>C22-C44 (1C)	0.29	H H3	0.095	0.035	mg/L		08/29/20 23:02	09/01/20 16:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*35*		*21 - 116*	*08/29/20 23:02*	*09/01/20 16:53*	*1*
o- terphenyl (Surr) (1C)	*30*	*XL*	*51 - 126*	*08/29/20 23:02*	*09/01/20 16:53*	*1*

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-12128-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	CBNZ1 (21-116)	OTP1 (51-126)
410-12128-1	CD-3-W-25.0-20200728	304 XH	91
410-12128-2	CD-3-W-82.0-20200730	35	30 XL
LCS 410-38690/2-A	Lab Control Sample	71	92
LCSD 410-38690/3-A	Lab Control Sample Dup	71	94
MB 410-38690/1-A	Method Blank	72	82

Surrogate Legend

CBNZ = Chlorobenzene (Surr)
OTP = o- terphenyl (Surr)

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 410-38690/1-A
Matrix: Water
Analysis Batch: 39685

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 38690

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		0.10	0.037	mg/L		08/29/20 23:02	09/01/20 15:07	1
>C22-C44 (1C)	ND		0.10	0.037	mg/L		08/29/20 23:02	09/01/20 15:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*72*		*21 - 116*	*08/29/20 23:02*	*09/01/20 15:07*	*1*
o- terphenyl (Surr) (1C)	*82*		*51 - 126*	*08/29/20 23:02*	*09/01/20 15:07*	*1*

Lab Sample ID: LCS 410-38690/2-A
Matrix: Water
Analysis Batch: 39685

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 38690

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (C10-C28) (1C)	0.800	0.519		mg/L		65	48 - 116

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Chlorobenzene (Surr) (1C)	*71*		*21 - 116*
o- terphenyl (Surr) (1C)	*92*		*51 - 126*

Lab Sample ID: LCSD 410-38690/3-A
Matrix: Water
Analysis Batch: 39685

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 38690

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (C10-C28) (1C)	0.800	0.564		mg/L		71	48 - 116	8	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Chlorobenzene (Surr) (1C)	*71*		*21 - 116*
o- terphenyl (Surr) (1C)	*94*		*51 - 126*

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-12128-1

GC Semi VOA

Prep Batch: 38690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12128-1	CD-3-W-25.0-20200728	Total/NA	Water	3510C	
410-12128-2	CD-3-W-82.0-20200730	Total/NA	Water	3510C	
MB 410-38690/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-38690/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-38690/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 39685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12128-1	CD-3-W-25.0-20200728	Total/NA	Water	8015C	38690
410-12128-2	CD-3-W-82.0-20200730	Total/NA	Water	8015C	38690
MB 410-38690/1-A	Method Blank	Total/NA	Water	8015C	38690
LCS 410-38690/2-A	Lab Control Sample	Total/NA	Water	8015C	38690
LCSD 410-38690/3-A	Lab Control Sample Dup	Total/NA	Water	8015C	38690

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-12128-1

Client Sample ID: CD-3-W-25.0-20200728

Lab Sample ID: 410-12128-1

Date Collected: 07/28/20 10:10

Matrix: Water

Date Received: 08/27/20 16:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			38690	08/29/20 23:02	UKL2	ELLE
Total/NA	Analysis	8015C		1	39685	09/01/20 16:32	YHQ2	ELLE

Client Sample ID: CD-3-W-82.0-20200730

Lab Sample ID: 410-12128-2

Date Collected: 07/30/20 11:45

Matrix: Water

Date Received: 08/27/20 16:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			38690	08/29/20 23:02	UKL2	ELLE
Total/NA	Analysis	8015C		1	39685	09/01/20 16:53	YHQ2	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp. Job ID: 410-12128-1
Project/Site: PHL Penrose Drilling Sampling

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015C	3510C	Water	>C12-C22 (1C)
8015C	3510C	Water	>C22-C44 (1C)

Method Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-12128-1

Method	Method Description	Protocol	Laboratory
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-12128-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-12128-1	CD-3-W-25.0-20200728	Water	07/28/20 10:10	08/27/20 16:56	
410-12128-2	CD-3-W-82.0-20200730	Water	07/30/20 11:45	08/27/20 16:56	

Environmental Analysis Custody

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410-12128 Chain of Custody

Acct. # _____ Sample # _____ ntal use only

COC #608583

Client Information		Matrix						Analysis Requested														For Lab Use Only
Client: Evergreen c/o Stantec	Acct. #: 16657							Preservation and Filtration Codes														FSC:
Project Name: PAL Penrose Drilling Sampling	PWSID #:																					SCR#:
Project Manager: Andrew Klingbeil	P.O. #: 2134026027																					Preservation Codes: H=HCl, N=HNO_3, S=H_2SO_4, F=Field Filtered, T=Thiosulfate, B=NaOH, P=H_3PO_4, O=Other
Sampler: Dave Hopkins	Quote #:																					Remarks
State where samples were collected: PA	For Compliance: Yes ☐ No ☐																					* refer to Evergreen Petroleum Short List for list of analytes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Sediment	Tissue	Water	Ground	Potable	Surface	NPDES	Other:	Total # of Containers	Custom TPH w/ Ranges	TPH-GRO 8260/Moisture	Metal (AL) (As) (Ba) (Cd) (Cr) (Pb) (Se) (Ag) dissolved 6010B Total 6010B	Sulfide	Chloride, Nitrate, Nitrogen, Sulfate	Volatile Headspace Hydrocarbons	Total Alkalinity to 4.5	Ammonia Nitrogen	*Short List VOCs 8260 including TPH 8260 + EDB/DBCP	*Short List SVOCs 8270
CD-3-W-252-20200728	7/28/2020	1010	X					X						17	X	X	X	X	X	X	X	X	X	X

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: Andrew.Klingbeil@Stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)

Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13

NYSDEC Category A or B | MA MCP | CT RCP

Relinquished by	Date	Time	Received by	Date	Time
[signature]	7/29/20	12:10	[signature]	7/29/20	12:10
[signature]	7/29/20	15:45	[signature]	Date	Time
[signature]	Date	Time	[signature]	Date	Time
[signature]	Date	Time	[signature]	Date	Time
[signature]	Date	Time	[signature]	Date	Time

EDD Required? Yes No

If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____

Temperature upon receipt 4.3 °C

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AP AP13160 AP17720 ③

Environmental Analysi[illegible] [illegible]stody

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Acct. # ___

[illegible]se only

COC # 610329

Client Information	
Client: Evergreen c/o Stantec	Acct. #: 16657
Project Name(s): PHL Penrose Drilling Sampling	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 213402602
Sampler: Dana Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: ___

Analysis Requested — Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Water	Other	Total # of Containers	Custom TPH w/ Ranges	TPH-GRO 8260/moisture	Metal 6010/Lead (assessed 6020/total 6010B)	Sulfide	Chloride, Nitrate Nitrogen, Sulfate	Volatile Organic Hydrocarbons	Total Alkalinity to 4.5	Ammonia Nitrogen	*Short List SVOCs 8260 including TPH 8260 + EDB 8011	*Short List SVOCs 8270	Remarks
CD-3-W-82.0-20200730	7/30/20	1145	X			X		17	X	X	X	X	X	X	X	X	X	X	

For Lab Use Only: FSC: ___ SCR#: ___

Preservation Codes: H=HCl, T=Thiosulfate, N=HNO_3, B=NaOH, S=H_2SO_4, P=H_3PO_4, F=Field Filtered, O=Other

*refer to Evergreen Petroleum Short List for list of analytes

Turnaround Time (TAT) Requested (please circle)

Standard — Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: ___

E-mail address: andrew.klingbeil@stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) — Type VI (Raw Data Only)

Type III (Reduced non-CLP) — NJ DKQP — TX TRRP-13

NYSDEC Category A or B — MA MCP — CT RCP

Relinquished by	Date	Time	Received by	Date	Time
Dana	7/30/20	12:50	Pierre	7/30/20	12:50
Pierre	7/30/20				
			W Mathers	7/30/20	1610

EDD Required? Yes No

If yes, format: EQUIS

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS ___ FedEx ___ Other ___

Temperature upon receipt −0.6 °C

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The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0919

WM

AP ~~[illegible]~~

AP 13160 0122120 (3)

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-12128-1

Login Number: 12128
List Number: 1
Creator: Phillips, Ann-Marie E

List Source: Eurofins Lancaster Laboratories Env

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.		
The cooler's custody seal is intact.		
The cooler or samples do not appear to have been compromised or tampered with.		
Samples were received on ice.		
Cooler Temperature is acceptable (</=6C, not frozen).		
Cooler Temperature is recorded.		
WV: Container Temperature is acceptable (</=6C, not frozen).		
WV: Container Temperature is recorded.		
COC is present.		
COC is filled out in ink and legible.		
COC is filled out with all pertinent information.		
There are no discrepancies between the containers received and the COC.		
Samples are received within Holding Time (excluding tests with immediate HTs)		
Sample containers have legible labels.		
Containers are not broken or leaking.		
Sample collection date/times are provided.		
Appropriate sample containers are used.		
Sample bottles are completely filled.		
There is sufficient vol. for all requested analyses.		
Multiphasic samples are not present.		
Samples do not require splitting or compositing.		
Is the Field Sampler's name present on COC?		
Sample Preservation Verified.		
Residual Chlorine Checked.		
Sample custody seals are intact.		

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-12585-1
Client Project/Site: Penrose Drilling Sampling
Revision: 1

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Andrew Klingbeil

Authorized for release by:
11/5/2020 7:53:03 PM

Amek Carter, Project Manager
(717)556-7252
amekcarter@eurofinsus.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
11/5/2020 7:53:03 PM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 6
Client Sample Results 9
Surrogate Summary 20
QC Sample Results 22
QC Association Summary 31
Lab Chronicle 35
Certification Summary 38
Method Summary 39
Sample Summary 40
Chain of Custody 41
Receipt Checklists 42

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: Penrose Drilling Sampling

Job ID: 410-12585-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
^c	CCV Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
XL	Surrogate recovery is below control limits

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-12585-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-12585-1

Revision
The report being provided is a revision of the original report sent on 9/22/2020. The report (revision 1) is being revised due to: Sample ID Change - Updated sample ID for S-374.

Receipt
The samples were received on 9/1/2020 4:15 PM; the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.5°C and 2.0°C

GC/MS VOA
Method 8260C_UST: The following samples S-443_20200831 (410-12585-5), S-444_20200831 (410-12585-6), S-445_20200901 (410-12585-7), S-446_20200901 (410-12585-8), DUP-1 (410-12585-9) and S-376_20200901 (410-12585-10) had matrix interference with an internal standard t-Butyl alcohol-d10, therefore the GRO result is biased low.

Method 8260C_UST: The continuing calibration verification (CCV) associated with batch 410-42498 recovered outside acceptance criteria, low biased, for Isopropylbenzene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260C_UST: The continuing calibration verification (CCV) associated with batch 410-42901 recovered outside acceptance criteria, low biased, for 1,2-Dichloroethane. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Non-detections of the affected analytes are reported. Any detections are considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270D: The holding was not meet. Surrogate recovery for the following sample was outside control limits: S-376_20200901 (410-12585-10). Re-extraction was performed outside the method required holding time and the surrogate recovery was again outside control limits. Per client request, the data is reported from the second trial.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Penrose Drilling Sampling

Job ID: 410-12585-1

Client Sample ID: S-440_20200831 — Lab Sample ID: 410-12585-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tertiary butyl ether	5.3		1.0	0.20	ug/L	1		8260C/UST	Total/NA
t-Butyl alcohol	170		50	12	ug/L	1		8260C/UST	Total/NA
Lead	0.29	J	0.52	0.073	ug/L	1		6020A	Dissolved

Client Sample ID: TB_20200831 — Lab Sample ID: 410-12585-2

No Detections.

Client Sample ID: S-441_20200831 — Lab Sample ID: 410-12585-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	41		25	5.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	28		25	1.5	ug/L	5		8260C/UST	Total/NA
Benzene	420		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Ethylbenzene	19		5.0	2.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	24	J	25	1.0	ug/L	5		8260C/UST	Total/NA
Methyl tertiary butyl ether	6.9		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Toluene	120		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	180		30	7.0	ug/L	5		8260C/UST	Total/NA
Naphthalene	3.8		0.51	0.10	ug/L	1		8270D	Total/NA

Client Sample ID: S-442_20200831 — Lab Sample ID: 410-12585-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	140		25	5.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	65		25	1.5	ug/L	5		8260C/UST	Total/NA
Ethylbenzene	66		5.0	2.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	17	J ^c	25	1.0	ug/L	5		8260C/UST	Total/NA
Methyl tertiary butyl ether	14		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Toluene	62		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	310		30	7.0	ug/L	5		8260C/UST	Total/NA
Benzene - DL	1100		50	10	ug/L	50		8260C/UST	Total/NA
Naphthalene	14		0.51	0.10	ug/L	1		8270D	Total/NA
Phenanthrene	0.12	J	0.51	0.10	ug/L	1		8270D	Total/NA
Lead	0.16	J	0.52	0.073	ug/L	1		6020A	Dissolved

Client Sample ID: S-443_20200831 — Lab Sample ID: 410-12585-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	430		25	5.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	150		25	1.5	ug/L	5		8260C/UST	Total/NA
Benzene	450		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Ethylbenzene	180		5.0	2.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	11	J ^c	25	1.0	ug/L	5		8260C/UST	Total/NA
Methyl tertiary butyl ether	11		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Toluene	250		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	1000		30	7.0	ug/L	5		8260C/UST	Total/NA
Fluorene	0.14	J	0.50	0.10	ug/L	1		8270D	Total/NA
Naphthalene	61		0.50	0.10	ug/L	1		8270D	Total/NA
Phenanthrene	0.14	J	0.50	0.10	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Penrose Drilling Sampling

Job ID: 410-12585-1

Client Sample ID: S-444_20200831 — Lab Sample ID: 410-12585-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	28		25	5.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	30		25	1.5	ug/L	5		8260C/UST	Total/NA
Benzene	6.9		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Ethylbenzene	320		5.0	2.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	67	^c	25	1.0	ug/L	5		8260C/UST	Total/NA
Toluene	110		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	230		30	7.0	ug/L	5		8260C/UST	Total/NA
Fluorene	0.12	J	0.51	0.10	ug/L	1		8270D	Total/NA
Naphthalene	33		0.51	0.10	ug/L	1		8270D	Total/NA
Lead	0.25	J	0.52	0.073	ug/L	1		6020A	Dissolved

Client Sample ID: S-445_20200901 — Lab Sample ID: 410-12585-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	20	J	25	5.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	12	J	25	1.5	ug/L	5		8260C/UST	Total/NA
Benzene	500		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Ethylbenzene	68		5.0	2.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	28	^c	25	1.0	ug/L	5		8260C/UST	Total/NA
Toluene	130		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	110		30	7.0	ug/L	5		8260C/UST	Total/NA
Naphthalene	24		0.50	0.10	ug/L	1		8270D	Total/NA
Lead	0.19	J	0.52	0.073	ug/L	1		6020A	Dissolved

Client Sample ID: S-446_20200901 — Lab Sample ID: 410-12585-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	5.8	J	25	5.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	9.9	J	25	1.5	ug/L	5		8260C/UST	Total/NA
Ethylbenzene	180		5.0	2.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	59	^c	25	1.0	ug/L	5		8260C/UST	Total/NA
Toluene	66		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	200		30	7.0	ug/L	5		8260C/UST	Total/NA
Fluorene	0.28	J	0.50	0.10	ug/L	1		8270D	Total/NA
Naphthalene	54		0.50	0.10	ug/L	1		8270D	Total/NA

Client Sample ID: DUP-1 — Lab Sample ID: 410-12585-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	5.3	J	25	5.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	8.7	J	25	1.5	ug/L	5		8260C/UST	Total/NA
Ethylbenzene	170		5.0	2.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	54	^c	25	1.0	ug/L	5		8260C/UST	Total/NA
Toluene	59		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	180		30	7.0	ug/L	5		8260C/UST	Total/NA
Fluorene	0.29	J	0.50	0.10	ug/L	1		8270D	Total/NA
Naphthalene	56		0.50	0.10	ug/L	1		8270D	Total/NA

Client Sample ID: S-374_20200901 — Lab Sample ID: 410-12585-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	770		25	5.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	160		25	1.5	ug/L	5		8260C/UST	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: S-374_20200901 (Continued)

Lab Sample ID: 410-12585-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	190		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Ethylbenzene	980		5.0	2.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	97	^c	25	1.0	ug/L	5		8260C/UST	Total/NA
Toluene	790		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	2100		30	7.0	ug/L	5		8260C/UST	Total/NA
Naphthalene - DL	160	H	5.1	1.0	ug/L	10		8270D	Total/NA
Lead	0.32	J	0.52	0.073	ug/L	1		6020A	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: S-440_20200831

Date Collected: 08/31/20 11:10
Date Received: 09/01/20 16:15

Lab Sample ID: 410-12585-1

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			09/10/20 16:59	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			09/10/20 16:59	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			09/10/20 16:59	1
Benzene	ND		1.0	0.20	ug/L			09/10/20 16:59	1
Ethylbenzene	ND		1.0	0.40	ug/L			09/10/20 16:59	1
Isopropylbenzene	ND	^c	5.0	0.20	ug/L			09/10/20 16:59	1
Methyl tertiary butyl ether	**5.3**		1.0	0.20	ug/L			09/10/20 16:59	1
Toluene	ND		1.0	0.20	ug/L			09/10/20 16:59	1
Xylenes, Total	ND		6.0	1.4	ug/L			09/10/20 16:59	1
t-Butyl alcohol	**170**		50	12	ug/L			09/10/20 16:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*		*09/10/20 16:59*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*09/10/20 16:59*	*1*
Dibromofluoromethane (Surr)	*92*		*80 - 120*		*09/10/20 16:59*	*1*
Toluene-d8 (Surr)	*106*		*80 - 120*		*09/10/20 16:59*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 15:01	1
Benzo[a]anthracene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 15:01	1
Benzo[a]pyrene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 15:01	1
Benzo[b]fluoranthene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 15:01	1
Benzo[g,h,i]perylene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 15:01	1
Chrysene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 15:01	1
Fluorene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 15:01	1
Naphthalene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 15:01	1
Phenanthrene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 15:01	1
Pyrene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 15:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*76*		*44 - 102*	*09/05/20 08:45*	*09/06/20 15:01*	*1*
Nitrobenzene-d5 (Surr)	*80*		*38 - 113*	*09/05/20 08:45*	*09/06/20 15:01*	*1*
p-Terphenyl-d14 (Surr)	*60*		*34 - 128*	*09/05/20 08:45*	*09/06/20 15:01*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0095	ug/L		09/12/20 13:49	09/15/20 11:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*108*		*46 - 136*	*09/12/20 13:49*	*09/15/20 11:12*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*94*		*46 - 136*	*09/12/20 13:49*	*09/15/20 11:12*	*1*

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.29**	**J**	0.52	0.073	ug/L		09/02/20 18:02	09/04/20 19:00	1

Client Sample ID: TB_20200831

Date Collected: 08/31/20 00:00
Date Received: 09/01/20 16:15

Lab Sample ID: 410-12585-2
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			09/10/20 15:46	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			09/10/20 15:46	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			09/10/20 15:46	1
Benzene	ND		1.0	0.20	ug/L			09/10/20 15:46	1
Ethylbenzene	ND		1.0	0.40	ug/L			09/10/20 15:46	1
Isopropylbenzene	ND	^c	5.0	0.20	ug/L			09/10/20 15:46	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			09/10/20 15:46	1
Toluene	ND		1.0	0.20	ug/L			09/10/20 15:46	1
Xylenes, Total	ND		6.0	1.4	ug/L			09/10/20 15:46	1
t-Butyl alcohol	ND		50	12	ug/L			09/10/20 15:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*		*09/10/20 15:46*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*09/10/20 15:46*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*09/10/20 15:46*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*09/10/20 15:46*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0097	ug/L		09/12/20 13:49	09/15/20 11:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*94*		*46 - 136*	*09/12/20 13:49*	*09/15/20 11:29*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*81*		*46 - 136*	*09/12/20 13:49*	*09/15/20 11:29*	*1*

Client Sample ID: S-441_20200831

Date Collected: 08/31/20 12:20
Date Received: 09/01/20 16:15

Lab Sample ID: 410-12585-3
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**41**		25	5.0	ug/L			09/11/20 14:29	5
1,2-Dichloroethane	ND	^c	5.0	1.5	ug/L			09/11/20 14:29	5
1,3,5-Trimethylbenzene	**28**		25	1.5	ug/L			09/11/20 14:29	5
Benzene	**420**		5.0	1.0	ug/L			09/11/20 14:29	5
Ethylbenzene	**19**		5.0	2.0	ug/L			09/11/20 14:29	5
Isopropylbenzene	**24**	**J**	25	1.0	ug/L			09/11/20 14:29	5
Methyl tertiary butyl ether	**6.9**		5.0	1.0	ug/L			09/11/20 14:29	5
Toluene	**120**		5.0	1.0	ug/L			09/11/20 14:29	5
Xylenes, Total	**180**		30	7.0	ug/L			09/11/20 14:29	5
t-Butyl alcohol	ND		250	60	ug/L			09/11/20 14:29	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*		*09/11/20 14:29*	*5*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*09/11/20 14:29*	*5*
Dibromofluoromethane (Surr)	*92*		*80 - 120*		*09/11/20 14:29*	*5*
Toluene-d8 (Surr)	*106*		*80 - 120*		*09/11/20 14:29*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 15:28	1

Client Sample ID: S-441_20200831

Lab Sample ID: 410-12585-3

Date Collected: 08/31/20 12:20
Matrix: Water
Date Received: 09/01/20 16:15

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 15:28	1
Benzo[a]pyrene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 15:28	1
Benzo[b]fluoranthene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 15:28	1
Benzo[g,h,i]perylene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 15:28	1
Chrysene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 15:28	1
Fluorene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 15:28	1
Naphthalene	**3.8**		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 15:28	1
Phenanthrene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 15:28	1
Pyrene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 15:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*61*		*44 - 102*	*09/05/20 08:45*	*09/06/20 15:28*	*1*
Nitrobenzene-d5 (Surr)	*66*		*38 - 113*	*09/05/20 08:45*	*09/06/20 15:28*	*1*
p-Terphenyl-d14 (Surr)	*65*		*34 - 128*	*09/05/20 08:45*	*09/06/20 15:28*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0097	ug/L		09/12/20 13:49	09/15/20 11:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*109*		*46 - 136*	*09/12/20 13:49*	*09/15/20 11:46*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*102*		*46 - 136*	*09/12/20 13:49*	*09/15/20 11:46*	*1*

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		09/02/20 17:59	09/04/20 18:54	1

Client Sample ID: S-442_20200831

Lab Sample ID: 410-12585-4

Date Collected: 08/31/20 14:00
Matrix: Water
Date Received: 09/01/20 16:15

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**140**		25	5.0	ug/L			09/10/20 20:59	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			09/10/20 20:59	5
1,3,5-Trimethylbenzene	**65**		25	1.5	ug/L			09/10/20 20:59	5
Ethylbenzene	**66**		5.0	2.0	ug/L			09/10/20 20:59	5
Isopropylbenzene	**17**	**J ^c**	25	1.0	ug/L			09/10/20 20:59	5
Methyl tertiary butyl ether	**14**		5.0	1.0	ug/L			09/10/20 20:59	5
Toluene	**62**		5.0	1.0	ug/L			09/10/20 20:59	5
Xylenes, Total	**310**		30	7.0	ug/L			09/10/20 20:59	5
t-Butyl alcohol	ND		250	60	ug/L			09/10/20 20:59	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*89*		*80 - 120*		*09/10/20 20:59*	*5*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*09/10/20 20:59*	*5*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*09/10/20 20:59*	*5*
Toluene-d8 (Surr)	*107*		*80 - 120*		*09/10/20 20:59*	*5*

Client Sample ID: S-442_20200831

Lab Sample ID: 410-12585-4
Matrix: Water
Date Collected: 08/31/20 14:00
Date Received: 09/01/20 16:15

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1100**		50	10	ug/L			09/10/20 21:23	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*		*09/10/20 21:23*	*50*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*09/10/20 21:23*	*50*
Dibromofluoromethane (Surr)	*94*		*80 - 120*		*09/10/20 21:23*	*50*
Toluene-d8 (Surr)	*105*		*80 - 120*		*09/10/20 21:23*	*50*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 15:55	1
Benzo[a]anthracene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 15:55	1
Benzo[a]pyrene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 15:55	1
Benzo[b]fluoranthene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 15:55	1
Benzo[g,h,i]perylene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 15:55	1
Chrysene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 15:55	1
Fluorene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 15:55	1
Naphthalene	**14**		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 15:55	1
Phenanthrene	**0.12**	**J**	0.51	0.10	ug/L		09/05/20 08:45	09/06/20 15:55	1
Pyrene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 15:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*56*		*44 - 102*	*09/05/20 08:45*	*09/06/20 15:55*	*1*
Nitrobenzene-d5 (Surr)	*57*		*38 - 113*	*09/05/20 08:45*	*09/06/20 15:55*	*1*
p-Terphenyl-d14 (Surr)	*49*		*34 - 128*	*09/05/20 08:45*	*09/06/20 15:55*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0095	ug/L		09/12/20 13:49	09/15/20 12:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*126*		*46 - 136*	*09/12/20 13:49*	*09/15/20 12:03*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*94*		*46 - 136*	*09/12/20 13:49*	*09/15/20 12:03*	*1*

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.16**	**J**	0.52	0.073	ug/L		09/02/20 17:59	09/04/20 18:52	1

Client Sample ID: S-443_20200831

Lab Sample ID: 410-12585-5
Matrix: Water
Date Collected: 08/31/20 15:15
Date Received: 09/01/20 16:15

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**430**		25	5.0	ug/L			09/10/20 18:11	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			09/10/20 18:11	5
1,3,5-Trimethylbenzene	**150**		25	1.5	ug/L			09/10/20 18:11	5
Benzene	**450**		5.0	1.0	ug/L			09/10/20 18:11	5
Ethylbenzene	**180**		5.0	2.0	ug/L			09/10/20 18:11	5
Isopropylbenzene	**11**	**J ^c**	25	1.0	ug/L			09/10/20 18:11	5
Methyl tertiary butyl ether	**11**		5.0	1.0	ug/L			09/10/20 18:11	5

Client Sample ID: S-443_20200831

Lab Sample ID: 410-12585-5

Date Collected: 08/31/20 15:15
Matrix: Water
Date Received: 09/01/20 16:15

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	**250**		5.0	1.0	ug/L			09/10/20 18:11	5
Xylenes, Total	**1000**		30	7.0	ug/L			09/10/20 18:11	5
t-Butyl alcohol	ND		250	60	ug/L			09/10/20 18:11	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*		*09/10/20 18:11*	*5*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*09/10/20 18:11*	*5*
Dibromofluoromethane (Surr)	*92*		*80 - 120*		*09/10/20 18:11*	*5*
Toluene-d8 (Surr)	*104*		*80 - 120*		*09/10/20 18:11*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 16:21	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 16:21	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 16:21	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 16:21	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 16:21	1
Chrysene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 16:21	1
Fluorene	**0.14**	**J**	0.50	0.10	ug/L		09/05/20 08:45	09/06/20 16:21	1
Naphthalene	**61**		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 16:21	1
Phenanthrene	**0.14**	**J**	0.50	0.10	ug/L		09/05/20 08:45	09/06/20 16:21	1
Pyrene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 16:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*69*		*44 - 102*	*09/05/20 08:45*	*09/06/20 16:21*	*1*
Nitrobenzene-d5 (Surr)	*69*		*38 - 113*	*09/05/20 08:45*	*09/06/20 16:21*	*1*
p-Terphenyl-d14 (Surr)	*71*		*34 - 128*	*09/05/20 08:45*	*09/06/20 16:21*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0096	ug/L		09/12/20 13:49	09/15/20 12:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*127*		*46 - 136*	*09/12/20 13:49*	*09/15/20 12:20*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*86*		*46 - 136*	*09/12/20 13:49*	*09/15/20 12:20*	*1*

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		09/02/20 17:59	09/04/20 18:49	1

Client Sample ID: S-444_20200831

Lab Sample ID: 410-12585-6

Date Collected: 08/31/20 16:20
Matrix: Water
Date Received: 09/01/20 16:15

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**28**		25	5.0	ug/L			09/10/20 18:35	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			09/10/20 18:35	5
1,3,5-Trimethylbenzene	**30**		25	1.5	ug/L			09/10/20 18:35	5
Benzene	**6.9**		5.0	1.0	ug/L			09/10/20 18:35	5
Ethylbenzene	**320**		5.0	2.0	ug/L			09/10/20 18:35	5

Client Sample ID: S-444_20200831

Date Collected: 08/31/20 16:20
Date Received: 09/01/20 16:15

Lab Sample ID: 410-12585-6
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	**67**	**^c**	25	1.0	ug/L			09/10/20 18:35	5
Methyl tertiary butyl ether	ND		5.0	1.0	ug/L			09/10/20 18:35	5
Toluene	**110**		5.0	1.0	ug/L			09/10/20 18:35	5
Xylenes, Total	**230**		30	7.0	ug/L			09/10/20 18:35	5
t-Butyl alcohol	ND		250	60	ug/L			09/10/20 18:35	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*89*		*80 - 120*		*09/10/20 18:35*	*5*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*09/10/20 18:35*	*5*
Dibromofluoromethane (Surr)	*93*		*80 - 120*		*09/10/20 18:35*	*5*
Toluene-d8 (Surr)	*107*		*80 - 120*		*09/10/20 18:35*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 16:48	1
Benzo[a]anthracene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 16:48	1
Benzo[a]pyrene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 16:48	1
Benzo[b]fluoranthene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 16:48	1
Benzo[g,h,i]perylene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 16:48	1
Chrysene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 16:48	1
Fluorene	**0.12**	**J**	0.51	0.10	ug/L		09/05/20 08:45	09/06/20 16:48	1
Naphthalene	**33**		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 16:48	1
Phenanthrene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 16:48	1
Pyrene	ND		0.51	0.10	ug/L		09/05/20 08:45	09/06/20 16:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*64*		*44 - 102*	*09/05/20 08:45*	*09/06/20 16:48*	*1*
Nitrobenzene-d5 (Surr)	*73*		*38 - 113*	*09/05/20 08:45*	*09/06/20 16:48*	*1*
p-Terphenyl-d14 (Surr)	*64*		*34 - 128*	*09/05/20 08:45*	*09/06/20 16:48*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0097	ug/L		09/12/20 13:49	09/15/20 12:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*101*		*46 - 136*	*09/12/20 13:49*	*09/15/20 12:37*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*94*		*46 - 136*	*09/12/20 13:49*	*09/15/20 12:37*	*1*

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.25**	**J**	0.52	0.073	ug/L		09/02/20 17:59	09/04/20 18:47	1

Client Sample ID: S-445_20200901

Date Collected: 09/01/20 09:30
Date Received: 09/01/20 16:15

Lab Sample ID: 410-12585-7
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**20**	**J**	25	5.0	ug/L			09/10/20 18:59	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			09/10/20 18:59	5
1,3,5-Trimethylbenzene	**12**	**J**	25	1.5	ug/L			09/10/20 18:59	5

Client Sample ID: S-445_20200901

Lab Sample ID: 410-12585-7

Date Collected: 09/01/20 09:30

Matrix: Water

Date Received: 09/01/20 16:15

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**500**		5.0	1.0	ug/L			09/10/20 18:59	5
Ethylbenzene	**68**		5.0	2.0	ug/L			09/10/20 18:59	5
Isopropylbenzene	**28**	**^c**	25	1.0	ug/L			09/10/20 18:59	5
Methyl tertiary butyl ether	ND		5.0	1.0	ug/L			09/10/20 18:59	5
Toluene	**130**		5.0	1.0	ug/L			09/10/20 18:59	5
Xylenes, Total	**110**		30	7.0	ug/L			09/10/20 18:59	5
t-Butyl alcohol	ND		250	60	ug/L			09/10/20 18:59	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*		*09/10/20 18:59*	*5*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*09/10/20 18:59*	*5*
Dibromofluoromethane (Surr)	*94*		*80 - 120*		*09/10/20 18:59*	*5*
Toluene-d8 (Surr)	*104*		*80 - 120*		*09/10/20 18:59*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 17:15	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 17:15	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 17:15	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 17:15	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 17:15	1
Chrysene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 17:15	1
Fluorene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 17:15	1
Naphthalene	**24**		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 17:15	1
Phenanthrene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 17:15	1
Pyrene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 17:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*62*		*44 - 102*	*09/05/20 08:45*	*09/06/20 17:15*	*1*
Nitrobenzene-d5 (Surr)	*83*		*38 - 113*	*09/05/20 08:45*	*09/06/20 17:15*	*1*
p-Terphenyl-d14 (Surr)	*42*		*34 - 128*	*09/05/20 08:45*	*09/06/20 17:15*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0097	ug/L		09/12/20 12:39	09/15/20 01:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*114*		*46 - 136*	*09/12/20 12:39*	*09/15/20 01:27*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*119*		*46 - 136*	*09/12/20 12:39*	*09/15/20 01:27*	*1*

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.19**	**J**	0.52	0.073	ug/L		09/05/20 04:42	09/08/20 10:19	1

Client Sample ID: S-446_20200901

Lab Sample ID: 410-12585-8

Date Collected: 09/01/20 10:55

Matrix: Water

Date Received: 09/01/20 16:15

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**5.8**	**J**	25	5.0	ug/L			09/10/20 19:23	5

Client Sample ID: S-446_20200901

Date Collected: 09/01/20 10:55
Date Received: 09/01/20 16:15

Lab Sample ID: 410-12585-8

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		5.0	1.5	ug/L			09/10/20 19:23	5
1,3,5-Trimethylbenzene	**9.9**	**J**	25	1.5	ug/L			09/10/20 19:23	5
Benzene	ND		5.0	1.0	ug/L			09/10/20 19:23	5
Ethylbenzene	**180**		5.0	2.0	ug/L			09/10/20 19:23	5
Isopropylbenzene	**59**	**^c**	25	1.0	ug/L			09/10/20 19:23	5
Methyl tertiary butyl ether	ND		5.0	1.0	ug/L			09/10/20 19:23	5
Toluene	**66**		5.0	1.0	ug/L			09/10/20 19:23	5
Xylenes, Total	**200**		30	7.0	ug/L			09/10/20 19:23	5
t-Butyl alcohol	ND		250	60	ug/L			09/10/20 19:23	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*89*		*80 - 120*		*09/10/20 19:23*	*5*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*09/10/20 19:23*	*5*
Dibromofluoromethane (Surr)	*93*		*80 - 120*		*09/10/20 19:23*	*5*
Toluene-d8 (Surr)	*106*		*80 - 120*		*09/10/20 19:23*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 17:41	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 17:41	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 17:41	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 17:41	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 17:41	1
Chrysene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 17:41	1
Fluorene	**0.28**	**J**	0.50	0.10	ug/L		09/05/20 08:45	09/06/20 17:41	1
Naphthalene	**54**		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 17:41	1
Phenanthrene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 17:41	1
Pyrene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 17:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*71*		*44 - 102*	*09/05/20 08:45*	*09/06/20 17:41*	*1*
Nitrobenzene-d5 (Surr)	*76*		*38 - 113*	*09/05/20 08:45*	*09/06/20 17:41*	*1*
p-Terphenyl-d14 (Surr)	*71*		*34 - 128*	*09/05/20 08:45*	*09/06/20 17:41*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0096	ug/L		09/12/20 12:39	09/15/20 01:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*116*		*46 - 136*	*09/12/20 12:39*	*09/15/20 01:44*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*125*		*46 - 136*	*09/12/20 12:39*	*09/15/20 01:44*	*1*

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		09/05/20 04:42	09/08/20 09:43	1

Client Sample ID: DUP-1
Date Collected: 09/01/20 00:00
Date Received: 09/01/20 16:15

Lab Sample ID: 410-12585-9
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**5.3**	**J**	25	5.0	ug/L			09/10/20 19:47	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			09/10/20 19:47	5
1,3,5-Trimethylbenzene	**8.7**	**J**	25	1.5	ug/L			09/10/20 19:47	5
Benzene	ND		5.0	1.0	ug/L			09/10/20 19:47	5
Ethylbenzene	**170**		5.0	2.0	ug/L			09/10/20 19:47	5
Isopropylbenzene	**54**	**^c**	25	1.0	ug/L			09/10/20 19:47	5
Methyl tertiary butyl ether	ND		5.0	1.0	ug/L			09/10/20 19:47	5
Toluene	**59**		5.0	1.0	ug/L			09/10/20 19:47	5
Xylenes, Total	**180**		30	7.0	ug/L			09/10/20 19:47	5
t-Butyl alcohol	ND		250	60	ug/L			09/10/20 19:47	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*		*09/10/20 19:47*	*5*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*09/10/20 19:47*	*5*
Dibromofluoromethane (Surr)	*92*		*80 - 120*		*09/10/20 19:47*	*5*
Toluene-d8 (Surr)	*107*		*80 - 120*		*09/10/20 19:47*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 18:08	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 18:08	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 18:08	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 18:08	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 18:08	1
Chrysene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 18:08	1
Fluorene	**0.29**	**J**	0.50	0.10	ug/L		09/05/20 08:45	09/06/20 18:08	1
Naphthalene	**56**		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 18:08	1
Phenanthrene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 18:08	1
Pyrene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 18:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*72*		*44 - 102*	*09/05/20 08:45*	*09/06/20 18:08*	*1*
Nitrobenzene-d5 (Surr)	*78*		*38 - 113*	*09/05/20 08:45*	*09/06/20 18:08*	*1*
p-Terphenyl-d14 (Surr)	*75*		*34 - 128*	*09/05/20 08:45*	*09/06/20 18:08*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0095	ug/L		09/12/20 12:39	09/15/20 02:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*107*		*46 - 136*	*09/12/20 12:39*	*09/15/20 02:01*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*122*		*46 - 136*	*09/12/20 12:39*	*09/15/20 02:01*	*1*

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		09/05/20 04:55	09/08/20 11:22	1

Client Sample ID: S-374_20200901

Date Collected: 09/01/20 12:10
Date Received: 09/01/20 16:15

Lab Sample ID: 410-12585-10

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**770**		25	5.0	ug/L			09/10/20 20:11	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			09/10/20 20:11	5
1,3,5-Trimethylbenzene	**160**		25	1.5	ug/L			09/10/20 20:11	5
Benzene	**190**		5.0	1.0	ug/L			09/10/20 20:11	5
Ethylbenzene	**980**		5.0	2.0	ug/L			09/10/20 20:11	5
Isopropylbenzene	**97**	**^c**	25	1.0	ug/L			09/10/20 20:11	5
Methyl tertiary butyl ether	ND		5.0	1.0	ug/L			09/10/20 20:11	5
Toluene	**790**		5.0	1.0	ug/L			09/10/20 20:11	5
Xylenes, Total	**2100**		30	7.0	ug/L			09/10/20 20:11	5
t-Butyl alcohol	ND		250	60	ug/L			09/10/20 20:11	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*80 - 120*		*09/10/20 20:11*	*5*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*09/10/20 20:11*	*5*
Dibromofluoromethane (Surr)	*91*		*80 - 120*		*09/10/20 20:11*	*5*
Toluene-d8 (Surr)	*107*		*80 - 120*		*09/10/20 20:11*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND	H	0.51	0.10	ug/L		09/14/20 09:00	09/15/20 16:04	1
Benzo[a]anthracene	ND	H	0.51	0.10	ug/L		09/14/20 09:00	09/15/20 16:04	1
Benzo[a]pyrene	ND	H	0.51	0.10	ug/L		09/14/20 09:00	09/15/20 16:04	1
Benzo[b]fluoranthene	ND	H	0.51	0.10	ug/L		09/14/20 09:00	09/15/20 16:04	1
Benzo[g,h,i]perylene	ND	H	0.51	0.10	ug/L		09/14/20 09:00	09/15/20 16:04	1
Chrysene	ND	H	0.51	0.10	ug/L		09/14/20 09:00	09/15/20 16:04	1
Fluorene	ND	H	0.51	0.10	ug/L		09/14/20 09:00	09/15/20 16:04	1
Phenanthrene	ND	H	0.51	0.10	ug/L		09/14/20 09:00	09/15/20 16:04	1
Pyrene	ND	H	0.51	0.10	ug/L		09/14/20 09:00	09/15/20 16:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*78*		*44 - 102*	*09/14/20 09:00*	*09/15/20 16:04*	*1*
Nitrobenzene-d5 (Surr)	*3*	*XL*	*38 - 113*	*09/14/20 09:00*	*09/15/20 16:04*	*1*
p-Terphenyl-d14 (Surr)	*60*		*34 - 128*	*09/14/20 09:00*	*09/15/20 16:04*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**160**	**H**	5.1	1.0	ug/L		09/14/20 09:00	09/21/20 15:22	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*72*		*44 - 102*	*09/14/20 09:00*	*09/21/20 15:22*	*10*
Nitrobenzene-d5 (Surr)	*2*	*XL*	*38 - 113*	*09/14/20 09:00*	*09/21/20 15:22*	*10*
p-Terphenyl-d14 (Surr)	*58*		*34 - 128*	*09/14/20 09:00*	*09/21/20 15:22*	*10*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0096	ug/L		09/12/20 12:39	09/15/20 02:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*134*		*46 - 136*	*09/12/20 12:39*	*09/15/20 02:18*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*113*		*46 - 136*	*09/12/20 12:39*	*09/15/20 02:18*	*1*

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Penrose Drilling Sampling

Job ID: 410-12585-1

Client Sample ID: S-374_20200901
Date Collected: 09/01/20 12:10
Date Received: 09/01/20 16:15

Lab Sample ID: 410-12585-10
Matrix: Water

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.32	J	0.52	0.073	ug/L		09/05/20 04:55	09/08/20 11:36	1

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Penrose Drilling Sampling

Job ID: 410-12585-1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-12585-1	S-440_20200831	90	98	92	106
410-12585-2	TB_20200831	90	98	95	104
410-12585-3	S-441_20200831	88	98	92	106
410-12585-4	S-442_20200831	89	99	95	107
410-12585-4 - DL	S-442_20200831	90	97	94	105
410-12585-5	S-443_20200831	88	95	92	104
410-12585-6	S-444_20200831	89	97	93	107
410-12585-7	S-445_20200901	90	96	94	104
410-12585-8	S-446_20200901	89	99	93	106
410-12585-9	DUP-1	88	98	92	107
410-12585-10	S-374_20200901	87	99	91	107
LCS 410-42498/5	Lab Control Sample	90	100	92	107
LCS 410-42498/7	Lab Control Sample	88	99	94	106
LCS 410-42901/5	Lab Control Sample	90	95	92	105
LCS 410-42901/7	Lab Control Sample	88	98	93	105
LCSD 410-42498/6	Lab Control Sample Dup	92	98	95	106
LCSD 410-42498/8	Lab Control Sample Dup	89	98	92	106
LCSD 410-42901/6	Lab Control Sample Dup	90	99	92	106
LCSD 410-42901/8	Lab Control Sample Dup	88	96	92	105
MB 410-42498/9	Method Blank	90	95	95	104
MB 410-42901/9	Method Blank	86	96	91	103

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(44-102)	(38-113)	(34-128)
410-12585-1	S-440_20200831	76	80	60
410-12585-3	S-441_20200831	61	66	65
410-12585-4	S-442_20200831	56	57	49
410-12585-5	S-443_20200831	69	69	71
410-12585-6	S-444_20200831	64	73	64
410-12585-7	S-445_20200901	62	83	42
410-12585-8	S-446_20200901	71	76	71
410-12585-9	DUP-1	72	78	75
410-12585-10	S-374_20200901	78	3 XL	60
410-12585-10 - DL	S-374_20200901	72	2 XL	58
LCS 410-41313/2-A	Lab Control Sample	83	89	83
LCS 410-43405/2-A	Lab Control Sample	84	96	82
LCSD 410-41313/3-A	Lab Control Sample Dup	81	86	77
MB 410-41313/1-A	Method Blank	69	75	67
MB 410-43405/1-A	Method Blank	55	63	71

Surrogate Legend

Surrogate Summary

Client: Stantec Consulting Corp.
Job ID: 410-12585-1
Project/Site: Penrose Drilling Sampling

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
		1122TCA1	1122TCA2								
Lab Sample ID	Client Sample ID	(46-136)	(46-136)								
410-12585-1	S-440_20200831	108	94								
410-12585-2	TB_20200831	94	81								
410-12585-3	S-441_20200831	109	102								
410-12585-4	S-442_20200831	126	94								
410-12585-5	S-443_20200831	127	86								
410-12585-6	S-444_20200831	101	94								
410-12585-7	S-445_20200901	114	119								
410-12585-8	S-446_20200901	116	125								
410-12585-9	DUP-1	107	122								
410-12585-10	S-374_20200901	134	113								
LCS 410-43217/2-A	Lab Control Sample	89	110								
LCS 410-43228/2-A	Lab Control Sample	95	82								
LCSD 410-43217/3-A	Lab Control Sample Dup	87	109								
LCSD 410-43228/3-A	Lab Control Sample Dup	95	83								
MB 410-43217/1-A	Method Blank	86	104								
MB 410-43228/1-A	Method Blank	95	84								

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Client: Stantec Consulting Corp.
Project/Site: Penrose Drilling Sampling

Job ID: 410-12585-1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-42498/9
Matrix: Water
Analysis Batch: 42498

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			09/10/20 13:22	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			09/10/20 13:22	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			09/10/20 13:22	1
Benzene	ND		1.0	0.20	ug/L			09/10/20 13:22	1
Ethylbenzene	ND		1.0	0.40	ug/L			09/10/20 13:22	1
Isopropylbenzene	ND		5.0	0.20	ug/L			09/10/20 13:22	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			09/10/20 13:22	1
Toluene	ND		1.0	0.20	ug/L			09/10/20 13:22	1
Xylenes, Total	ND		6.0	1.4	ug/L			09/10/20 13:22	1
t-Butyl alcohol	ND		50	12	ug/L			09/10/20 13:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*		*09/10/20 13:22*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*09/10/20 13:22*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*09/10/20 13:22*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*09/10/20 13:22*	*1*

Lab Sample ID: LCS 410-42498/5
Matrix: Water
Analysis Batch: 42498

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2,4-Trimethylbenzene			20.0	18.7		ug/L		94	75 - 120		
1,2-Dichloroethane			20.0	14.7		ug/L		74	73 - 124		
1,3,5-Trimethylbenzene			20.0	18.1		ug/L		91	75 - 120		
Benzene			20.0	16.9		ug/L		84	80 - 120		
Ethylbenzene			20.0	19.2		ug/L		96	80 - 120		
Isopropylbenzene			20.0	17.6		ug/L		88	80 - 120		
Methyl tertiary butyl ether			20.0	16.1		ug/L		81	69 - 122		
Toluene			20.0	19.0		ug/L		95	80 - 120		
Xylenes, Total			60.0	53.8		ug/L		90	80 - 120		
t-Butyl alcohol			200	183		ug/L		92	60 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*92*		*80 - 120*
Toluene-d8 (Surr)	*107*		*80 - 120*

Lab Sample ID: LCS 410-42498/7
Matrix: Water
Analysis Batch: 42498

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C4-C12-TPH-GRO			1000	871		ug/L		87	67 - 120		

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-42498/7
Matrix: Water
Analysis Batch: 42498

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*94*		*80 - 120*
Toluene-d8 (Surr)	*106*		*80 - 120*

Lab Sample ID: LCSD 410-42498/6
Matrix: Water
Analysis Batch: 42498

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene			20.0	19.6		ug/L		98	75 - 120	4	30
1,2-Dichloroethane			20.0	15.2		ug/L		76	73 - 124	3	30
1,3,5-Trimethylbenzene			20.0	19.8		ug/L		99	75 - 120	9	30
Benzene			20.0	18.0		ug/L		90	80 - 120	6	30
Ethylbenzene			20.0	20.6		ug/L		103	80 - 120	7	30
Isopropylbenzene			20.0	18.9		ug/L		95	80 - 120	8	30
Methyl tertiary butyl ether			20.0	16.2		ug/L		81	69 - 122	0	30
Toluene			20.0	20.3		ug/L		102	80 - 120	7	30
Xylenes, Total			60.0	57.2		ug/L		95	80 - 120	6	30
t-Butyl alcohol			200	179		ug/L		90	60 - 130	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*80 - 120*
Toluene-d8 (Surr)	*106*		*80 - 120*

Lab Sample ID: LCSD 410-42498/8
Matrix: Water
Analysis Batch: 42498

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C4-C12-TPH-GRO			1000	857		ug/L		86	67 - 120	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*89*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*92*		*80 - 120*
Toluene-d8 (Surr)	*106*		*80 - 120*

Lab Sample ID: MB 410-42901/9
Matrix: Water
Analysis Batch: 42901

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			09/11/20 12:29	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			09/11/20 12:29	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			09/11/20 12:29	1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-42901/9
Matrix: Water
Analysis Batch: 42901

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.20	ug/L			09/11/20 12:29	1
Ethylbenzene	ND		1.0	0.40	ug/L			09/11/20 12:29	1
Isopropylbenzene	ND		5.0	0.20	ug/L			09/11/20 12:29	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			09/11/20 12:29	1
Toluene	ND		1.0	0.20	ug/L			09/11/20 12:29	1
Xylenes, Total	ND		6.0	1.4	ug/L			09/11/20 12:29	1
t-Butyl alcohol	ND		50	12	ug/L			09/11/20 12:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*80 - 120*		*09/11/20 12:29*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*09/11/20 12:29*	*1*
Dibromofluoromethane (Surr)	*91*		*80 - 120*		*09/11/20 12:29*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*09/11/20 12:29*	*1*

Lab Sample ID: LCS 410-42901/5
Matrix: Water
Analysis Batch: 42901

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	20.0	21.0		ug/L		105	75 - 120
1,2-Dichloroethane	20.0	15.8		ug/L		79	73 - 124
1,3,5-Trimethylbenzene	20.0	20.8		ug/L		104	75 - 120
Benzene	20.0	18.6		ug/L		93	80 - 120
Ethylbenzene	20.0	21.4		ug/L		107	80 - 120
Isopropylbenzene	20.0	19.9		ug/L		100	80 - 120
Methyl tertiary butyl ether	20.0	17.5		ug/L		88	69 - 122
Toluene	20.0	20.9		ug/L		105	80 - 120
Xylenes, Total	60.0	60.2		ug/L		100	80 - 120
t-Butyl alcohol	200	204		ug/L		102	60 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*
Dibromofluoromethane (Surr)	*92*		*80 - 120*
Toluene-d8 (Surr)	*105*		*80 - 120*

Lab Sample ID: LCS 410-42901/7
Matrix: Water
Analysis Batch: 42901

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C4-C12-TPH-GRO	1000	897		ug/L		90	67 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*93*		*80 - 120*
Toluene-d8 (Surr)	*105*		*80 - 120*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: LCSD 410-42901/6
Matrix: Water
Analysis Batch: 42901

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene			20.0	18.8		ug/L		94	75 - 120	11	30
1,2-Dichloroethane			20.0	14.5		ug/L		73	73 - 124	8	30
1,3,5-Trimethylbenzene			20.0	18.8		ug/L		94	75 - 120	10	30
Benzene			20.0	16.8		ug/L		84	80 - 120	10	30
Ethylbenzene			20.0	19.5		ug/L		97	80 - 120	9	30
Isopropylbenzene			20.0	17.9		ug/L		90	80 - 120	11	30
Methyl tertiary butyl ether			20.0	15.9		ug/L		80	69 - 122	10	30
Toluene			20.0	19.4		ug/L		97	80 - 120	8	30
Xylenes, Total			60.0	55.6		ug/L		93	80 - 120	8	30
t-Butyl alcohol			200	189		ug/L		94	60 - 130	8	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*92*		*80 - 120*
Toluene-d8 (Surr)	*106*		*80 - 120*

Lab Sample ID: LCSD 410-42901/8
Matrix: Water
Analysis Batch: 42901

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C4-C12-TPH-GRO			1000	934		ug/L		93	67 - 120	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*92*		*80 - 120*
Toluene-d8 (Surr)	*105*		*80 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-41313/1-A
Matrix: Water
Analysis Batch: 41403

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 41313

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 10:25	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 10:25	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 10:25	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 10:25	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 10:25	1
Chrysene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 10:25	1
Fluorene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 10:25	1
Naphthalene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 10:25	1
Phenanthrene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 10:25	1
Pyrene	ND		0.50	0.10	ug/L		09/05/20 08:45	09/06/20 10:25	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-41313/1-A
Matrix: Water
Analysis Batch: 41403

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 41313

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	69		44 - 102	09/05/20 08:45	09/06/20 10:25	1
Nitrobenzene-d5 (Surr)	75		38 - 113	09/05/20 08:45	09/06/20 10:25	1
p-Terphenyl-d14 (Surr)	67		34 - 128	09/05/20 08:45	09/06/20 10:25	1

Lab Sample ID: LCS 410-41313/2-A
Matrix: Water
Analysis Batch: 41403

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 41313

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Anthracene			50.1	50.0		ug/L		100	67 - 116		
Benzo[a]anthracene			50.0	45.9		ug/L		92	68 - 123		
Benzo[a]pyrene			50.2	42.8		ug/L		85	71 - 117		
Benzo[b]fluoranthene			50.1	44.0		ug/L		88	69 - 121		
Benzo[g,h,i]perylene			50.1	40.7		ug/L		81	60 - 119		
Chrysene			50.0	50.5		ug/L		101	65 - 121		
Fluorene			50.1	51.7		ug/L		103	56 - 115		
Naphthalene			50.4	41.5		ug/L		82	51 - 102		
Phenanthrene			50.2	48.2		ug/L		96	65 - 113		
Pyrene			50.4	50.2		ug/L		100	65 - 115		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	83		44 - 102
Nitrobenzene-d5 (Surr)	89		38 - 113
p-Terphenyl-d14 (Surr)	83		34 - 128

Lab Sample ID: LCSD 410-41313/3-A
Matrix: Water
Analysis Batch: 41403

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 41313

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Anthracene			50.1	50.2		ug/L		100	67 - 116	0	30
Benzo[a]anthracene			50.0	45.2		ug/L		90	68 - 123	2	30
Benzo[a]pyrene			50.2	41.5		ug/L		83	71 - 117	3	30
Benzo[b]fluoranthene			50.1	41.1		ug/L		82	69 - 121	7	30
Benzo[g,h,i]perylene			50.1	39.3		ug/L		79	60 - 119	4	30
Chrysene			50.0	50.0		ug/L		100	65 - 121	1	30
Fluorene			50.1	50.0		ug/L		100	56 - 115	3	30
Naphthalene			50.4	39.9		ug/L		79	51 - 102	4	30
Phenanthrene			50.2	49.2		ug/L		98	65 - 113	2	30
Pyrene			50.4	49.1		ug/L		97	65 - 115	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	81		44 - 102
Nitrobenzene-d5 (Surr)	86		38 - 113
p-Terphenyl-d14 (Surr)	77		34 - 128

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-43405/1-A
Matrix: Water
Analysis Batch: 43716

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 43405

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		09/14/20 09:00	09/15/20 00:26	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		09/14/20 09:00	09/15/20 00:26	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		09/14/20 09:00	09/15/20 00:26	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		09/14/20 09:00	09/15/20 00:26	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		09/14/20 09:00	09/15/20 00:26	1
Chrysene	ND		0.50	0.10	ug/L		09/14/20 09:00	09/15/20 00:26	1
Fluorene	ND		0.50	0.10	ug/L		09/14/20 09:00	09/15/20 00:26	1
Naphthalene	ND		0.50	0.10	ug/L		09/14/20 09:00	09/15/20 00:26	1
Phenanthrene	ND		0.50	0.10	ug/L		09/14/20 09:00	09/15/20 00:26	1
Pyrene	ND		0.50	0.10	ug/L		09/14/20 09:00	09/15/20 00:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*55*		*44 - 102*	*09/14/20 09:00*	*09/15/20 00:26*	*1*
Nitrobenzene-d5 (Surr)	*63*		*38 - 113*	*09/14/20 09:00*	*09/15/20 00:26*	*1*
p-Terphenyl-d14 (Surr)	*71*		*34 - 128*	*09/14/20 09:00*	*09/15/20 00:26*	*1*

Lab Sample ID: LCS 410-43405/2-A
Matrix: Water
Analysis Batch: 43716

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 43405

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.1	46.1		ug/L		92	67 - 116
Benzo[a]anthracene	50.0	48.5		ug/L		97	68 - 123
Benzo[a]pyrene	50.2	45.3		ug/L		90	71 - 117
Benzo[b]fluoranthene	50.1	46.0		ug/L		92	69 - 121
Benzo[g,h,i]perylene	50.1	46.7		ug/L		93	60 - 119
Chrysene	50.0	45.8		ug/L		92	65 - 121
Fluorene	50.1	45.8		ug/L		91	56 - 115
Naphthalene	50.4	42.6		ug/L		85	51 - 102
Phenanthrene	50.2	46.8		ug/L		93	65 - 113
Pyrene	50.4	45.1		ug/L		89	65 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*84*		*44 - 102*
Nitrobenzene-d5 (Surr)	*96*		*38 - 113*
p-Terphenyl-d14 (Surr)	*82*		*34 - 128*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-43217/1-A
Matrix: Water
Analysis Batch: 43648

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 43217

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		09/12/20 12:39	09/14/20 19:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*86*		*46 - 136*	*09/12/20 12:39*	*09/14/20 19:36*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: MB 410-43217/1-A
Matrix: Water
Analysis Batch: 43648

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 43217

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane (Surr) (2C)	104		46 - 136	09/12/20 12:39	09/14/20 19:36	1

Lab Sample ID: LCS 410-43217/2-A
Matrix: Water
Analysis Batch: 43648

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 43217

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.108		ug/L		85	60 - 140		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,1,2,2-Tetrachloroethane (Surr) (1C)	89		46 - 136
1,1,2,2-Tetrachloroethane (Surr) (2C)	110		46 - 136

Lab Sample ID: LCSD 410-43217/3-A
Matrix: Water
Analysis Batch: 43648

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 43217

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.105		ug/L		82	60 - 140	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,1,2,2-Tetrachloroethane (Surr) (1C)	87		46 - 136
1,1,2,2-Tetrachloroethane (Surr) (2C)	109		46 - 136

Lab Sample ID: MB 410-43228/1-A
Matrix: Water
Analysis Batch: 43647

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 43228

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		09/12/20 13:49	09/14/20 19:39	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane (Surr) (1C)	95		46 - 136	09/12/20 13:49	09/14/20 19:39	1
1,1,2,2-Tetrachloroethane (Surr) (2C)	84		46 - 136	09/12/20 13:49	09/14/20 19:39	1

Lab Sample ID: LCS 410-43228/2-A
Matrix: Water
Analysis Batch: 43647

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 43228

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.119		ug/L		93	60 - 140		

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: LCS 410-43228/2-A
Matrix: Water
Analysis Batch: 43647

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 43228

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*95*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*82*		*46 - 136*

Lab Sample ID: LCSD 410-43228/3-A
Matrix: Water
Analysis Batch: 43647

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 43228

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.111		ug/L		87	60 - 140	7	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*95*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*83*		*46 - 136*

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 410-41297/1-A
Matrix: Water
Analysis Batch: 41648

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 41297

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		09/05/20 04:42	09/08/20 09:39	1

Lab Sample ID: LCS 410-41297/2-A
Matrix: Water
Analysis Batch: 41648

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 41297

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			30.0	30.5		ug/L		102	90 - 115		

Lab Sample ID: MB 410-41300/1-A
Matrix: Water
Analysis Batch: 41667

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 41300

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		09/05/20 04:55	09/08/20 11:18	1

Lab Sample ID: LCS 410-41300/2-A
Matrix: Water
Analysis Batch: 41667

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 41300

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			30.0	29.8		ug/L		99	90 - 115		

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 410-12585-8 MS
Matrix: Water
Analysis Batch: 41648

Client Sample ID: S-446_20200901
Prep Type: Dissolved
Prep Batch: 41297

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	ND		30.0	30.5		ug/L		102	75 - 125

Lab Sample ID: 410-12585-8 MSD
Matrix: Water
Analysis Batch: 41648

Client Sample ID: S-446_20200901
Prep Type: Dissolved
Prep Batch: 41297

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	ND		30.0	31.6		ug/L		106	75 - 125	4	20

Lab Sample ID: 410-12585-8 DU
Matrix: Water
Analysis Batch: 41648

Client Sample ID: S-446_20200901
Prep Type: Dissolved
Prep Batch: 41297

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	ND		ND		ug/L		NC	20

Lab Sample ID: 410-12585-9 MS
Matrix: Water
Analysis Batch: 41667

Client Sample ID: DUP-1
Prep Type: Dissolved
Prep Batch: 41300

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	ND		30.0	30.4		ug/L		101	75 - 125

Lab Sample ID: 410-12585-9 MSD
Matrix: Water
Analysis Batch: 41667

Client Sample ID: DUP-1
Prep Type: Dissolved
Prep Batch: 41300

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	ND		30.0	30.6		ug/L		102	75 - 125	1	20

Lab Sample ID: 410-12585-9 DU
Matrix: Water
Analysis Batch: 41667

Client Sample ID: DUP-1
Prep Type: Dissolved
Prep Batch: 41300

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	ND		ND		ug/L		NC	20

GC/MS VOA

Analysis Batch: 42498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12585-1	S-440_20200831	Total/NA	Water	8260C/UST	
410-12585-2	TB_20200831	Total/NA	Water	8260C/UST	
410-12585-4	S-442_20200831	Total/NA	Water	8260C/UST	
410-12585-4 - DL	S-442_20200831	Total/NA	Water	8260C/UST	
410-12585-5	S-443_20200831	Total/NA	Water	8260C/UST	
410-12585-6	S-444_20200831	Total/NA	Water	8260C/UST	
410-12585-7	S-445_20200901	Total/NA	Water	8260C/UST	
410-12585-8	S-446_20200901	Total/NA	Water	8260C/UST	
410-12585-9	DUP-1	Total/NA	Water	8260C/UST	
410-12585-10	S-374_20200901	Total/NA	Water	8260C/UST	
MB 410-42498/9	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-42498/5	Lab Control Sample	Total/NA	Water	8260C/UST	
LCS 410-42498/7	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-42498/6	Lab Control Sample Dup	Total/NA	Water	8260C/UST	
LCSD 410-42498/8	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

Analysis Batch: 42901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12585-3	S-441_20200831	Total/NA	Water	8260C/UST	
MB 410-42901/9	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-42901/5	Lab Control Sample	Total/NA	Water	8260C/UST	
LCS 410-42901/7	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-42901/6	Lab Control Sample Dup	Total/NA	Water	8260C/UST	
LCSD 410-42901/8	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

GC/MS Semi VOA

Prep Batch: 41313

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12585-1	S-440_20200831	Total/NA	Water	3510C	
410-12585-3	S-441_20200831	Total/NA	Water	3510C	
410-12585-4	S-442_20200831	Total/NA	Water	3510C	
410-12585-5	S-443_20200831	Total/NA	Water	3510C	
410-12585-6	S-444_20200831	Total/NA	Water	3510C	
410-12585-7	S-445_20200901	Total/NA	Water	3510C	
410-12585-8	S-446_20200901	Total/NA	Water	3510C	
410-12585-9	DUP-1	Total/NA	Water	3510C	
MB 410-41313/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-41313/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-41313/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 41403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12585-1	S-440_20200831	Total/NA	Water	8270D	41313
410-12585-3	S-441_20200831	Total/NA	Water	8270D	41313
410-12585-4	S-442_20200831	Total/NA	Water	8270D	41313
410-12585-5	S-443_20200831	Total/NA	Water	8270D	41313
410-12585-6	S-444_20200831	Total/NA	Water	8270D	41313
410-12585-7	S-445_20200901	Total/NA	Water	8270D	41313
410-12585-8	S-446_20200901	Total/NA	Water	8270D	41313
410-12585-9	DUP-1	Total/NA	Water	8270D	41313

GC/MS Semi VOA (Continued)

Analysis Batch: 41403 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-41313/1-A	Method Blank	Total/NA	Water	8270D	41313
LCS 410-41313/2-A	Lab Control Sample	Total/NA	Water	8270D	41313
LCSD 410-41313/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	41313

Prep Batch: 43405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12585-10 - DL	S-374_20200901	Total/NA	Water	3510C	
410-12585-10	S-374_20200901	Total/NA	Water	3510C	
MB 410-43405/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-43405/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 43716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-43405/1-A	Method Blank	Total/NA	Water	8270D	43405
LCS 410-43405/2-A	Lab Control Sample	Total/NA	Water	8270D	43405

Analysis Batch: 43967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12585-10	S-374_20200901	Total/NA	Water	8270D	43405

Analysis Batch: 45839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12585-10 - DL	S-374_20200901	Total/NA	Water	8270D	43405

GC Semi VOA

Prep Batch: 43217

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12585-7	S-445_20200901	Total/NA	Water	8011	
410-12585-8	S-446_20200901	Total/NA	Water	8011	
410-12585-9	DUP-1	Total/NA	Water	8011	
410-12585-10	S-374_20200901	Total/NA	Water	8011	
MB 410-43217/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-43217/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-43217/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Prep Batch: 43228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12585-1	S-440_20200831	Total/NA	Water	8011	
410-12585-2	TB_20200831	Total/NA	Water	8011	
410-12585-3	S-441_20200831	Total/NA	Water	8011	
410-12585-4	S-442_20200831	Total/NA	Water	8011	
410-12585-5	S-443_20200831	Total/NA	Water	8011	
410-12585-6	S-444_20200831	Total/NA	Water	8011	
MB 410-43228/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-43228/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-43228/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 43647

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12585-1	S-440_20200831	Total/NA	Water	8011	43228

GC Semi VOA (Continued)

Analysis Batch: 43647 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12585-2	TB_20200831	Total/NA	Water	8011	43228
410-12585-3	S-441_20200831	Total/NA	Water	8011	43228
410-12585-4	S-442_20200831	Total/NA	Water	8011	43228
410-12585-5	S-443_20200831	Total/NA	Water	8011	43228
410-12585-6	S-444_20200831	Total/NA	Water	8011	43228
MB 410-43228/1-A	Method Blank	Total/NA	Water	8011	43228
LCS 410-43228/2-A	Lab Control Sample	Total/NA	Water	8011	43228
LCSD 410-43228/3-A	Lab Control Sample Dup	Total/NA	Water	8011	43228

Analysis Batch: 43648

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12585-7	S-445_20200901	Total/NA	Water	8011	43217
410-12585-8	S-446_20200901	Total/NA	Water	8011	43217
410-12585-9	DUP-1	Total/NA	Water	8011	43217
410-12585-10	S-374_20200901	Total/NA	Water	8011	43217
MB 410-43217/1-A	Method Blank	Total/NA	Water	8011	43217
LCS 410-43217/2-A	Lab Control Sample	Total/NA	Water	8011	43217
LCSD 410-43217/3-A	Lab Control Sample Dup	Total/NA	Water	8011	43217

Metals

Filtration Batch: 40216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12585-7	S-445_20200901	Dissolved	Water	Filtration	
410-12585-8	S-446_20200901	Dissolved	Water	Filtration	
410-12585-9	DUP-1	Dissolved	Water	Filtration	
410-12585-10	S-374_20200901	Dissolved	Water	Filtration	
410-12585-8 MS	S-446_20200901	Dissolved	Water	Filtration	
410-12585-8 MSD	S-446_20200901	Dissolved	Water	Filtration	
410-12585-9 MS	DUP-1	Dissolved	Water	Filtration	
410-12585-9 MSD	DUP-1	Dissolved	Water	Filtration	
410-12585-8 DU	S-446_20200901	Dissolved	Water	Filtration	
410-12585-9 DU	DUP-1	Dissolved	Water	Filtration	

Prep Batch: 40337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12585-1	S-440_20200831	Dissolved	Water	Non-Digest Prep	
410-12585-3	S-441_20200831	Dissolved	Water	Non-Digest Prep	
410-12585-4	S-442_20200831	Dissolved	Water	Non-Digest Prep	
410-12585-5	S-443_20200831	Dissolved	Water	Non-Digest Prep	
410-12585-6	S-444_20200831	Dissolved	Water	Non-Digest Prep	

Prep Batch: 41297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12585-7	S-445_20200901	Dissolved	Water	Non-Digest Prep	40216
410-12585-8	S-446_20200901	Dissolved	Water	Non-Digest Prep	40216
MB 410-41297/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-41297/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	
410-12585-8 MS	S-446_20200901	Dissolved	Water	Non-Digest Prep	40216
410-12585-8 MSD	S-446_20200901	Dissolved	Water	Non-Digest Prep	40216
410-12585-8 DU	S-446_20200901	Dissolved	Water	Non-Digest Prep	40216

Metals

Prep Batch: 41300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12585-9	DUP-1	Dissolved	Water	Non-Digest Prep	40216
410-12585-10	S-374_20200901	Dissolved	Water	Non-Digest Prep	40216
MB 410-41300/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-41300/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	
410-12585-9 MS	DUP-1	Dissolved	Water	Non-Digest Prep	40216
410-12585-9 MSD	DUP-1	Dissolved	Water	Non-Digest Prep	40216
410-12585-9 DU	DUP-1	Dissolved	Water	Non-Digest Prep	40216

Analysis Batch: 41583

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12585-1	S-440_20200831	Dissolved	Water	6020A	40337
410-12585-3	S-441_20200831	Dissolved	Water	6020A	40337
410-12585-4	S-442_20200831	Dissolved	Water	6020A	40337
410-12585-5	S-443_20200831	Dissolved	Water	6020A	40337
410-12585-6	S-444_20200831	Dissolved	Water	6020A	40337

Analysis Batch: 41648

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12585-7	S-445_20200901	Dissolved	Water	6020A	41297
410-12585-8	S-446_20200901	Dissolved	Water	6020A	41297
MB 410-41297/1-A	Method Blank	Total/NA	Water	6020A	41297
LCS 410-41297/2-A	Lab Control Sample	Total/NA	Water	6020A	41297
410-12585-8 MS	S-446_20200901	Dissolved	Water	6020A	41297
410-12585-8 MSD	S-446_20200901	Dissolved	Water	6020A	41297
410-12585-8 DU	S-446_20200901	Dissolved	Water	6020A	41297

Analysis Batch: 41667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12585-9	DUP-1	Dissolved	Water	6020A	41300
410-12585-10	S-374_20200901	Dissolved	Water	6020A	41300
MB 410-41300/1-A	Method Blank	Total/NA	Water	6020A	41300
LCS 410-41300/2-A	Lab Control Sample	Total/NA	Water	6020A	41300
410-12585-9 MS	DUP-1	Dissolved	Water	6020A	41300
410-12585-9 MSD	DUP-1	Dissolved	Water	6020A	41300
410-12585-9 DU	DUP-1	Dissolved	Water	6020A	41300

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Penrose Drilling Sampling

Job ID: 410-12585-1

Client Sample ID: S-440_20200831
Date Collected: 08/31/20 11:10
Date Received: 09/01/20 16:15

Lab Sample ID: 410-12585-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	42498	09/10/20 16:59	UKAD	ELLE
Total/NA	Prep	3510C			41313	09/05/20 08:45	R9CT	ELLE
Total/NA	Analysis	8270D		1	41403	09/06/20 15:01	W6XI	ELLE
Total/NA	Prep	8011			43228	09/12/20 13:49	UKQ8	ELLE
Total/NA	Analysis	8011		1	43647	09/15/20 11:12	AC3T	ELLE
Dissolved	Prep	Non-Digest Prep			40337	09/02/20 18:02	UJLA	ELLE
Dissolved	Analysis	6020A		1	41583	09/04/20 19:00	V5SW	ELLE

Client Sample ID: TB_20200831
Date Collected: 08/31/20 00:00
Date Received: 09/01/20 16:15

Lab Sample ID: 410-12585-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	42498	09/10/20 15:46	UKAD	ELLE
Total/NA	Prep	8011			43228	09/12/20 13:49	UKQ8	ELLE
Total/NA	Analysis	8011		1	43647	09/15/20 11:29	AC3T	ELLE

Client Sample ID: S-441_20200831
Date Collected: 08/31/20 12:20
Date Received: 09/01/20 16:15

Lab Sample ID: 410-12585-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	42901	09/11/20 14:29	UKAD	ELLE
Total/NA	Prep	3510C			41313	09/05/20 08:45	R9CT	ELLE
Total/NA	Analysis	8270D		1	41403	09/06/20 15:28	W6XI	ELLE
Total/NA	Prep	8011			43228	09/12/20 13:49	UKQ8	ELLE
Total/NA	Analysis	8011		1	43647	09/15/20 11:46	AC3T	ELLE
Dissolved	Prep	Non-Digest Prep			40337	09/02/20 17:59	UJLA	ELLE
Dissolved	Analysis	6020A		1	41583	09/04/20 18:54	V5SW	ELLE

Client Sample ID: S-442_20200831
Date Collected: 08/31/20 14:00
Date Received: 09/01/20 16:15

Lab Sample ID: 410-12585-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	42498	09/10/20 20:59	UKAD	ELLE
Total/NA	Analysis	8260C/UST	DL	50	42498	09/10/20 21:23	UKAD	ELLE
Total/NA	Prep	3510C			41313	09/05/20 08:45	R9CT	ELLE
Total/NA	Analysis	8270D		1	41403	09/06/20 15:55	W6XI	ELLE
Total/NA	Prep	8011			43228	09/12/20 13:49	UKQ8	ELLE
Total/NA	Analysis	8011		1	43647	09/15/20 12:03	AC3T	ELLE
Dissolved	Prep	Non-Digest Prep			40337	09/02/20 17:59	UJLA	ELLE
Dissolved	Analysis	6020A		1	41583	09/04/20 18:52	V5SW	ELLE

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Penrose Drilling Sampling

Job ID: 410-12585-1

Client Sample ID: S-443_20200831

Lab Sample ID: 410-12585-5

Date Collected: 08/31/20 15:15

Matrix: Water

Date Received: 09/01/20 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	42498	09/10/20 18:11	UKAD	ELLE
Total/NA	Prep	3510C			41313	09/05/20 08:45	R9CT	ELLE
Total/NA	Analysis	8270D		1	41403	09/06/20 16:21	W6XI	ELLE
Total/NA	Prep	8011			43228	09/12/20 13:49	UKQ8	ELLE
Total/NA	Analysis	8011		1	43647	09/15/20 12:20	AC3T	ELLE
Dissolved	Prep	Non-Digest Prep			40337	09/02/20 17:59	UJLA	ELLE
Dissolved	Analysis	6020A		1	41583	09/04/20 18:49	V5SW	ELLE

Client Sample ID: S-444_20200831

Lab Sample ID: 410-12585-6

Date Collected: 08/31/20 16:20

Matrix: Water

Date Received: 09/01/20 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	42498	09/10/20 18:35	UKAD	ELLE
Total/NA	Prep	3510C			41313	09/05/20 08:45	R9CT	ELLE
Total/NA	Analysis	8270D		1	41403	09/06/20 16:48	W6XI	ELLE
Total/NA	Prep	8011			43228	09/12/20 13:49	UKQ8	ELLE
Total/NA	Analysis	8011		1	43647	09/15/20 12:37	AC3T	ELLE
Dissolved	Prep	Non-Digest Prep			40337	09/02/20 17:59	UJLA	ELLE
Dissolved	Analysis	6020A		1	41583	09/04/20 18:47	V5SW	ELLE

Client Sample ID: S-445_20200901

Lab Sample ID: 410-12585-7

Date Collected: 09/01/20 09:30

Matrix: Water

Date Received: 09/01/20 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	42498	09/10/20 18:59	UKAD	ELLE
Total/NA	Prep	3510C			41313	09/05/20 08:45	R9CT	ELLE
Total/NA	Analysis	8270D		1	41403	09/06/20 17:15	W6XI	ELLE
Total/NA	Prep	8011			43217	09/12/20 12:39	UKQ8	ELLE
Total/NA	Analysis	8011		1	43648	09/15/20 01:27	AC3T	ELLE
Dissolved	Filtration	Filtration			40216	09/02/20 12:30	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			41297	09/05/20 04:42	UJL8	ELLE
Dissolved	Analysis	6020A		1	41648	09/08/20 10:19	V5SW	ELLE

Client Sample ID: S-446_20200901

Lab Sample ID: 410-12585-8

Date Collected: 09/01/20 10:55

Matrix: Water

Date Received: 09/01/20 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	42498	09/10/20 19:23	UKAD	ELLE
Total/NA	Prep	3510C			41313	09/05/20 08:45	R9CT	ELLE
Total/NA	Analysis	8270D		1	41403	09/06/20 17:41	W6XI	ELLE
Total/NA	Prep	8011			43217	09/12/20 12:39	UKQ8	ELLE
Total/NA	Analysis	8011		1	43648	09/15/20 01:44	AC3T	ELLE

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Penrose Drilling Sampling

Job ID: 410-12585-1

Client Sample ID: S-446_20200901

Lab Sample ID: 410-12585-8

Date Collected: 09/01/20 10:55

Matrix: Water

Date Received: 09/01/20 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	Filtration			40216	09/02/20 12:30	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			41297	09/05/20 04:42	UJL8	ELLE
Dissolved	Analysis	6020A		1	41648	09/08/20 09:43	V5SW	ELLE

Client Sample ID: DUP-1

Lab Sample ID: 410-12585-9

Date Collected: 09/01/20 00:00

Matrix: Water

Date Received: 09/01/20 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	42498	09/10/20 19:47	UKAD	ELLE
Total/NA	Prep	3510C			41313	09/05/20 08:45	R9CT	ELLE
Total/NA	Analysis	8270D		1	41403	09/06/20 18:08	W6XI	ELLE
Total/NA	Prep	8011			43217	09/12/20 12:39	UKQ8	ELLE
Total/NA	Analysis	8011		1	43648	09/15/20 02:01	AC3T	ELLE
Dissolved	Filtration	Filtration			40216	09/02/20 12:30	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			41300	09/05/20 04:55	UJL8	ELLE
Dissolved	Analysis	6020A		1	41667	09/08/20 11:22	V5SW	ELLE

Client Sample ID: S-374_20200901

Lab Sample ID: 410-12585-10

Date Collected: 09/01/20 12:10

Matrix: Water

Date Received: 09/01/20 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	42498	09/10/20 20:11	UKAD	ELLE
Total/NA	Prep	3510C			43405	09/14/20 09:00	U2SJ	ELLE
Total/NA	Analysis	8270D		1	43967	09/15/20 16:04	SJ89	ELLE
Total/NA	Prep	3510C	DL		43405	09/14/20 09:00	U2SJ	ELLE
Total/NA	Analysis	8270D	DL	10	45839	09/21/20 15:22	UWHS	ELLE
Total/NA	Prep	8011			43217	09/12/20 12:39	UKQ8	ELLE
Total/NA	Analysis	8011		1	43648	09/15/20 02:18	AC3T	ELLE
Dissolved	Filtration	Filtration			40216	09/02/20 12:30	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			41300	09/05/20 04:55	UJL8	ELLE
Dissolved	Analysis	6020A		1	41667	09/08/20 11:36	V5SW	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp. Job ID: 410-12585-1
Project/Site: Penrose Drilling Sampling

Laboratory: Eurofins Lancaster Laboratories Env, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-21

Method Summary

Client: Stantec Consulting Corp.
Project/Site: Penrose Drilling Sampling

Job ID: 410-12585-1

Method	Method Description	Protocol	Laboratory
8260C/UST	Volatile Organic Compounds (GC/MS)	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
8011	Microextraction	SW846	ELLE
Filtration	Sample Filtration	None	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: Penrose Drilling Sampling

Job ID: 410-12585-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-12585-1	S-440_20200831	Water	08/31/20 11:10	09/01/20 16:15	
410-12585-2	TB_20200831	Water	08/31/20 00:00	09/01/20 16:15	
410-12585-3	S-441_20200831	Water	08/31/20 12:20	09/01/20 16:15	
410-12585-4	S-442_20200831	Water	08/31/20 14:00	09/01/20 16:15	
410-12585-5	S-443_20200831	Water	08/31/20 15:15	09/01/20 16:15	
410-12585-6	S-444_20200831	Water	08/31/20 16:20	09/01/20 16:15	
410-12585-7	S-445_20200901	Water	09/01/20 09:30	09/01/20 16:15	
410-12585-8	S-446_20200901	Water	09/01/20 10:55	09/01/20 16:15	
410-12585-9	DUP-1	Water	09/01/20 00:00	09/01/20 16:15	
410-12585-10	S-374_20200901	Water	09/01/20 12:10	09/01/20 16:15	

Environmental Analysis R ustody

eurofins | Lancaster Laboratories Environmental

Acct. # _____

410-12585 Chain of Custody

ntal use only

COC # 610335

Client Information

Client: Evergreen c/o Stantec	Acct. #: 16657
Project Name/#: Penrose Drilling Sampling	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 2134026002
Sampler: Dane Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Sample Identification	Collected Date	Collected Time	Grab	Composite	Matrix: Soil ☐ Sediment ☐ Tissue ☐	Water ☒ Potable ☐ Ground ☐ NPDES ☐ Surface ☐	Other: trip blank	Total # of Containers	*Short List SVOCs 8270	*Short List VOCs 8260 and TBA	EDB 8011	dissolved lead (field filtered)	Remarks
S-440_20200831	8/31/20	1110	X			X		9	X	X	X	X	
TB_20200831	6/19/20	—					X	2		X	X		
S-441_20200831	8/31/20	1220	X			X		9	X	X	X	X	
S-442_20200831	8/31/20	1460	X			X		9	X	X	X	X	
S-443_20200831	8/31/20	1515	X			X		9	X	X	X	X	
S-444_20200831	8/31/20	1620	X			X		9	X	X	X	X	
S-445_20200901	9/1/20	0930	X			X		8	X	X	X	X	⊗ = please lab filter (unpreserved metals)
S-446_20200901	9/1/20	1055	X			X		8	X	X	X	X	
DUP-1	9/1/2020	—	X			X		8	X	X	X	X	
S-376_20200901	9/1/2020	1210	X			X		8	X	X	X	X	

S-374

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: andrew.klingbeil@stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)

Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13

NYSDEC Category A or B | MA MCP | CT RCP

Analysis Requested

Preservation and Filtration Codes

For Lab Use Only

FSC: _____

SCR#: _____

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks

*refer to Evergreen Petroleum short list for list of analytes

Relinquished by	Date	Time	Received by	Date	Time
Dane	9/1/20	12:15	Pierre	9/1/20	12:15
Pierre	9/1/20	15:50			
				9-1-20	16:15

EDD Required? Yes No

If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other X

Temperature upon receipt 1.5-2.0 °C

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The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0919

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-12585-1

Login Number: 12585
List Number: 1
Creator: Colon Martinez, Jessenia C

List Source: Eurofins Lancaster Laboratories Env

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	True	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-12761-1
Client Project/Site: PHL Penrose Drilling Sampling

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Andrew Klingbeil

Authorized for release by:
10/12/2020 1:38:44 PM
Duane Luckenbill, Department Manager I
duaneluckenbill@eurofinsus.com

Designee for

Amek Carter, Project Manager
(717)556-7252
amekcarter@eurofinsus.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

* QC recoveries that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result.

* Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.

* Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Duane Luckenbill
Department Manager I
10/12/2020 1:38:44 PM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 6
Detection Summary 7
Client Sample Results 9
Surrogate Summary 16
QC Sample Results 18
QC Association Summary 32
Lab Chronicle 38
Certification Summary 41
Method Summary 42
Sample Summary 43
Chain of Custody 44
Receipt Checklists 45

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-12761-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
^c	CCV Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
XL	Surrogate recovery is below control limits

GC Semi VOA

Qualifier	Qualifier Description
XH	Surrogate recovery is above control limits

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-12761-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-12761-1

Receipt
The samples were received on 9/2/2020 4:18 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.3º C.

GC/MS VOA
Method 8260C/UST: The following samples S-447_20200901 (410-12761-3) and S-448_20200902 (410-12761-5) had matrix interference with an internal standard t-Butyl alcohol-d10, therefore the GRO result is biased low.

Method 8260C/UST: The continuing calibration verification (CCV) associated with batch 410-42498 recovered outside acceptance criteria, low biased, for Isopropylbenzene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260C/UST: The continuing calibration verification (CCV) associated with batch 410-42901 recovered outside acceptance criteria, low biased, for 1,2-Dichloroethane. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Non-detections of the affected analytes are reported. Any detections are considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: Surrogate recovery for the following samples were outside control limits: S-447_20200901 (410-12761-3) and S-223_20200901 (410-12761-4). Re-extraction and/or re-analysis was performed outside of holding time with acceptable results.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA
Method 8015C: Surrogate chlorobenzene recovery for the following sample was outside control limits: S-449_20200902 (410-12761-6). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method Filtration: The following samples were not filtered within 15 minutes of sample collection as required by the method: EB_20200901 (410-12761-1), S-447_20200901 (410-12761-3), S-223_20200901 (410-12761-4), S-448_20200902 (410-12761-5) and S-449_20200902 (410-12761-6). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-12761-1

Client Sample ID: EB_20200901 — Lab Sample ID: 410-12761-1

No Detections.

Client Sample ID: TB_20200901 — Lab Sample ID: 410-12761-2

No Detections.

Client Sample ID: S-447_20200901 — Lab Sample ID: 410-12761-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	150		25	5.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	47		25	1.5	ug/L	5		8260C/UST	Total/NA
Benzene	100		5.0	1.0	ug/L	5		8260C/UST	Total/NA
C4-C12-TPH-GRO	11000		250	150	ug/L	5		8260C/UST	Total/NA
Ethylbenzene	500		5.0	2.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	26	^c	25	1.0	ug/L	5		8260C/UST	Total/NA
Toluene	950		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	1700		30	7.0	ug/L	5		8260C/UST	Total/NA
Naphthalene	84		0.50	0.10	ug/L	1		8270D	Total/NA
Lead	1.0		0.50	0.071	ug/L	1		6020A	Dissolved

Client Sample ID: S-223_20200901 — Lab Sample ID: 410-12761-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	780		25	5.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	260		25	1.5	ug/L	5		8260C/UST	Total/NA
C4-C12-TPH-GRO	17000		250	150	ug/L	5		8260C/UST	Total/NA
Ethylbenzene	700		5.0	2.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	23	J	25	1.0	ug/L	5		8260C/UST	Total/NA
Toluene	160		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	1200		30	7.0	ug/L	5		8260C/UST	Total/NA
Benzene - DL	2200		50	10	ug/L	50		8260C/UST	Total/NA
Anthracene	0.17	J	0.51	0.10	ug/L	1		8270D	Total/NA
Fluorene	1.4		0.51	0.10	ug/L	1		8270D	Total/NA
Phenanthrene	0.85		0.51	0.10	ug/L	1		8270D	Total/NA
Naphthalene - DL	180		2.5	0.51	ug/L	5		8270D	Total/NA

Client Sample ID: S-448_20200902 — Lab Sample ID: 410-12761-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1.7	J	5.0	1.0	ug/L	1		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	3.3	J	5.0	0.30	ug/L	1		8260C/UST	Total/NA
Benzene	0.23	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
C4-C12-TPH-GRO	3000		50	29	ug/L	1		8260C/UST	Total/NA
Ethylbenzene	6.7		1.0	0.40	ug/L	1		8260C/UST	Total/NA
Isopropylbenzene	1.7	J ^c	5.0	0.20	ug/L	1		8260C/UST	Total/NA
Methyl tertiary butyl ether	3.0		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Toluene	0.47	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Xylenes, Total	5.2	J	6.0	1.4	ug/L	1		8260C/UST	Total/NA
Anthracene	0.14	J	0.50	0.10	ug/L	1		8270D	Total/NA
Naphthalene	1.2		0.50	0.10	ug/L	1		8270D	Total/NA
Phenanthrene	0.26	J	0.50	0.10	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-12761-1

Client Sample ID: S-449_20200902

Lab Sample ID: 410-12761-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	12	J	50	10	ug/L	10		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	11	J	50	3.0	ug/L	10		8260C/UST	Total/NA
C4-C12-TPH-GRO	13000		500	290	ug/L	10		8260C/UST	Total/NA
Ethylbenzene	43		10	4.0	ug/L	10		8260C/UST	Total/NA
Isopropylbenzene	32	J	50	2.0	ug/L	10		8260C/UST	Total/NA
Methyl tertiary butyl ether	650		10	2.0	ug/L	10		8260C/UST	Total/NA
Toluene	180		10	2.0	ug/L	10		8260C/UST	Total/NA
Xylenes, Total	130		60	14	ug/L	10		8260C/UST	Total/NA
t-Butyl alcohol	330	J	500	120	ug/L	10		8260C/UST	Total/NA
Benzene - DL	3400		100	20	ug/L	100		8260C/UST	Total/NA
Anthracene	0.19	J	0.51	0.10	ug/L	1		8270D	Total/NA
Naphthalene	4.6		0.51	0.10	ug/L	1		8270D	Total/NA
Phenanthrene	0.49	J	0.51	0.10	ug/L	1		8270D	Total/NA
Pyrene	0.31	J	0.51	0.10	ug/L	1		8270D	Total/NA
Ethane (1C)	6.6		5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	24000		1000	600	ug/L	200		RSK-175	Total/NA
>C12-C22 (1C)	1.0		0.096	0.035	mg/L	1		8015C	Total/NA
>C22-C44 (1C)	0.35		0.096	0.035	mg/L	1		8015C	Total/NA
Sulfate	12		5.0	1.5	mg/L	5		EPA 300.0 R2.1	Total/NA
Chloride	140	J	200	100	mg/L	500		EPA 300.0 R2.1	Total/NA
Calcium	32		0.20	0.096	mg/L	1		6010C	Total Recoverable
Iron	13		0.20	0.040	mg/L	1		6010C	Total Recoverable
Magnesium	22		0.10	0.040	mg/L	1		6010C	Total Recoverable
Potassium	5.0		0.50	0.20	mg/L	1		6010C	Total Recoverable
Sodium	81		1.0	0.24	mg/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	180		8.0	8.0	mg/L	1		2320B-2011	Total/NA
Ammonia-N	0.69	J	1.1	0.36	mg/L	1		4500 NH3 C-2011	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-12761-1

Client Sample ID: EB_20200901

Date Collected: 09/01/20 13:05
Date Received: 09/02/20 16:18

Lab Sample ID: 410-12761-1

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			09/10/20 16:10	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			09/10/20 16:10	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			09/10/20 16:10	1
Benzene	ND		1.0	0.20	ug/L			09/10/20 16:10	1
C4-C12-TPH-GRO	ND		50	29	ug/L			09/10/20 16:10	1
Ethylbenzene	ND		1.0	0.40	ug/L			09/10/20 16:10	1
Isopropylbenzene	ND	^c	5.0	0.20	ug/L			09/10/20 16:10	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			09/10/20 16:10	1
Toluene	ND		1.0	0.20	ug/L			09/10/20 16:10	1
Xylenes, Total	ND		6.0	1.4	ug/L			09/10/20 16:10	1
t-Butyl alcohol	ND		50	12	ug/L			09/10/20 16:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*		*09/10/20 16:10*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*09/10/20 16:10*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*09/10/20 16:10*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*09/10/20 16:10*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		09/08/20 09:30	09/15/20 20:26	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		09/08/20 09:30	09/15/20 20:26	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		09/08/20 09:30	09/15/20 20:26	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		09/08/20 09:30	09/15/20 20:26	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		09/08/20 09:30	09/15/20 20:26	1
Chrysene	ND		0.50	0.10	ug/L		09/08/20 09:30	09/15/20 20:26	1
Fluorene	ND		0.50	0.10	ug/L		09/08/20 09:30	09/15/20 20:26	1
Naphthalene	ND		0.50	0.10	ug/L		09/08/20 09:30	09/15/20 20:26	1
Phenanthrene	ND		0.50	0.10	ug/L		09/08/20 09:30	09/15/20 20:26	1
Pyrene	ND		0.50	0.10	ug/L		09/08/20 09:30	09/15/20 20:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*80*		*44 - 102*	*09/08/20 09:30*	*09/15/20 20:26*	*1*
Nitrobenzene-d5 (Surr)	*99*		*38 - 113*	*09/08/20 09:30*	*09/15/20 20:26*	*1*
p-Terphenyl-d14 (Surr)	*93*		*34 - 128*	*09/08/20 09:30*	*09/15/20 20:26*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0095	ug/L		09/14/20 22:49	09/16/20 04:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*87*		*46 - 136*	*09/14/20 22:49*	*09/16/20 04:17*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*89*		*46 - 136*	*09/14/20 22:49*	*09/16/20 04:17*	*1*

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		09/08/20 04:58	09/11/20 16:54	1

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-12761-1

Client Sample ID: TB_20200901

Date Collected: 08/30/20 00:00
Date Received: 09/02/20 16:18

Lab Sample ID: 410-12761-2
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			09/10/20 16:34	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			09/10/20 16:34	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			09/10/20 16:34	1
Benzene	ND		1.0	0.20	ug/L			09/10/20 16:34	1
C4-C12-TPH-GRO	ND		50	29	ug/L			09/10/20 16:34	1
Ethylbenzene	ND		1.0	0.40	ug/L			09/10/20 16:34	1
Isopropylbenzene	ND	^c	5.0	0.20	ug/L			09/10/20 16:34	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			09/10/20 16:34	1
Toluene	ND		1.0	0.20	ug/L			09/10/20 16:34	1
Xylenes, Total	ND		6.0	1.4	ug/L			09/10/20 16:34	1
t-Butyl alcohol	ND		50	12	ug/L			09/10/20 16:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*		*09/10/20 16:34*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*09/10/20 16:34*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*09/10/20 16:34*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*09/10/20 16:34*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0096	ug/L		09/12/20 13:49	09/15/20 14:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*100*		*46 - 136*	*09/12/20 13:49*	*09/15/20 14:19*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*84*		*46 - 136*	*09/12/20 13:49*	*09/15/20 14:19*	*1*

Client Sample ID: S-447_20200901

Date Collected: 09/01/20 14:30
Date Received: 09/02/20 16:18

Lab Sample ID: 410-12761-3
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**150**		25	5.0	ug/L			09/10/20 20:35	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			09/10/20 20:35	5
1,3,5-Trimethylbenzene	**47**		25	1.5	ug/L			09/10/20 20:35	5
Benzene	**100**		5.0	1.0	ug/L			09/10/20 20:35	5
C4-C12-TPH-GRO	**11000**		250	150	ug/L			09/10/20 20:35	5
Ethylbenzene	**500**		5.0	2.0	ug/L			09/10/20 20:35	5
Isopropylbenzene	**26**	**^c**	25	1.0	ug/L			09/10/20 20:35	5
Methyl tertiary butyl ether	ND		5.0	1.0	ug/L			09/10/20 20:35	5
Toluene	**950**		5.0	1.0	ug/L			09/10/20 20:35	5
Xylenes, Total	**1700**		30	7.0	ug/L			09/10/20 20:35	5
t-Butyl alcohol	ND		250	60	ug/L			09/10/20 20:35	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*		*09/10/20 20:35*	*5*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*09/10/20 20:35*	*5*
Dibromofluoromethane (Surr)	*93*		*80 - 120*		*09/10/20 20:35*	*5*
Toluene-d8 (Surr)	*107*		*80 - 120*		*09/10/20 20:35*	*5*

Client Sample ID: S-447_20200901

Date Collected: 09/01/20 14:30
Date Received: 09/02/20 16:18

Lab Sample ID: 410-12761-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		09/08/20 09:30	09/15/20 20:55	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		09/08/20 09:30	09/15/20 20:55	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		09/08/20 09:30	09/15/20 20:55	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		09/08/20 09:30	09/15/20 20:55	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		09/08/20 09:30	09/15/20 20:55	1
Chrysene	ND		0.50	0.10	ug/L		09/08/20 09:30	09/15/20 20:55	1
Fluorene	ND		0.50	0.10	ug/L		09/08/20 09:30	09/15/20 20:55	1
Naphthalene	**84**		0.50	0.10	ug/L		09/08/20 09:30	09/15/20 20:55	1
Phenanthrene	ND		0.50	0.10	ug/L		09/08/20 09:30	09/15/20 20:55	1
Pyrene	ND		0.50	0.10	ug/L		09/08/20 09:30	09/15/20 20:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*64*		*44 - 102*	*09/08/20 09:30*	*09/15/20 20:55*	*1*
Nitrobenzene-d5 (Surr)	*90*		*38 - 113*	*09/08/20 09:30*	*09/15/20 20:55*	*1*
p-Terphenyl-d14 (Surr)	*32*	*XL*	*34 - 128*	*09/08/20 09:30*	*09/15/20 20:55*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0096	ug/L		09/14/20 22:49	09/16/20 04:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*119*		*46 - 136*	*09/14/20 22:49*	*09/16/20 04:34*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*88*		*46 - 136*	*09/14/20 22:49*	*09/16/20 04:34*	*1*

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**1.0**		0.50	0.071	ug/L		09/08/20 05:02	09/14/20 14:18	1

Client Sample ID: S-223_20200901

Date Collected: 09/01/20 15:30
Date Received: 09/02/20 16:18

Lab Sample ID: 410-12761-4
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**780**		25	5.0	ug/L			09/11/20 15:17	5
1,2-Dichloroethane	ND	^c	5.0	1.5	ug/L			09/11/20 15:17	5
1,3,5-Trimethylbenzene	**260**		25	1.5	ug/L			09/11/20 15:17	5
C4-C12-TPH-GRO	**17000**		250	150	ug/L			09/11/20 15:17	5
Ethylbenzene	**700**		5.0	2.0	ug/L			09/11/20 15:17	5
Isopropylbenzene	**23**	**J**	25	1.0	ug/L			09/11/20 15:17	5
Methyl tertiary butyl ether	ND		5.0	1.0	ug/L			09/11/20 15:17	5
Toluene	**160**		5.0	1.0	ug/L			09/11/20 15:17	5
Xylenes, Total	**1200**		30	7.0	ug/L			09/11/20 15:17	5
t-Butyl alcohol	ND		250	60	ug/L			09/11/20 15:17	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*80 - 120*		*09/11/20 15:17*	*5*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*09/11/20 15:17*	*5*
Dibromofluoromethane (Surr)	*92*		*80 - 120*		*09/11/20 15:17*	*5*
Toluene-d8 (Surr)	*103*		*80 - 120*		*09/11/20 15:17*	*5*

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-12761-1

Client Sample ID: S-223_20200901
Date Collected: 09/01/20 15:30
Date Received: 09/02/20 16:18

Lab Sample ID: 410-12761-4
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**2200**		50	10	ug/L			09/11/20 15:41	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*80 - 120*		*09/11/20 15:41*	*50*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*09/11/20 15:41*	*50*
Dibromofluoromethane (Surr)	*92*		*80 - 120*		*09/11/20 15:41*	*50*
Toluene-d8 (Surr)	*104*		*80 - 120*		*09/11/20 15:41*	*50*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**0.17**	**J**	0.51	0.10	ug/L		09/08/20 09:30	09/15/20 21:24	1
Benzo[a]anthracene	ND		0.51	0.10	ug/L		09/08/20 09:30	09/15/20 21:24	1
Benzo[a]pyrene	ND		0.51	0.10	ug/L		09/08/20 09:30	09/15/20 21:24	1
Benzo[b]fluoranthene	ND		0.51	0.10	ug/L		09/08/20 09:30	09/15/20 21:24	1
Benzo[g,h,i]perylene	ND		0.51	0.10	ug/L		09/08/20 09:30	09/15/20 21:24	1
Chrysene	ND		0.51	0.10	ug/L		09/08/20 09:30	09/15/20 21:24	1
Fluorene	**1.4**		0.51	0.10	ug/L		09/08/20 09:30	09/15/20 21:24	1
Phenanthrene	**0.85**		0.51	0.10	ug/L		09/08/20 09:30	09/15/20 21:24	1
Pyrene	ND		0.51	0.10	ug/L		09/08/20 09:30	09/15/20 21:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*79*		*44 - 102*	*09/08/20 09:30*	*09/15/20 21:24*	*1*
Nitrobenzene-d5 (Surr)	*3*	*XL*	*38 - 113*	*09/08/20 09:30*	*09/15/20 21:24*	*1*
p-Terphenyl-d14 (Surr)	*39*		*34 - 128*	*09/08/20 09:30*	*09/15/20 21:24*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**180**		2.5	0.51	ug/L		09/08/20 09:30	09/15/20 22:15	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*74*		*44 - 102*	*09/08/20 09:30*	*09/15/20 22:15*	*5*
Nitrobenzene-d5 (Surr)	*2*	*XL*	*38 - 113*	*09/08/20 09:30*	*09/15/20 22:15*	*5*
p-Terphenyl-d14 (Surr)	*35*		*34 - 128*	*09/08/20 09:30*	*09/15/20 22:15*	*5*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0096	ug/L		09/14/20 22:49	09/16/20 04:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*120*		*46 - 136*	*09/14/20 22:49*	*09/16/20 04:51*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*99*		*46 - 136*	*09/14/20 22:49*	*09/16/20 04:51*	*1*

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		09/08/20 04:58	09/11/20 17:32	1

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-12761-1

Client Sample ID: S-448_20200902

Date Collected: 09/02/20 09:25
Date Received: 09/02/20 16:18

Lab Sample ID: 410-12761-5

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**1.7**	**J**	5.0	1.0	ug/L			09/10/20 17:47	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			09/10/20 17:47	1
1,3,5-Trimethylbenzene	**3.3**	**J**	5.0	0.30	ug/L			09/10/20 17:47	1
Benzene	**0.23**	**J**	1.0	0.20	ug/L			09/10/20 17:47	1
C4-C12-TPH-GRO	**3000**		50	29	ug/L			09/10/20 17:47	1
Ethylbenzene	**6.7**		1.0	0.40	ug/L			09/10/20 17:47	1
Isopropylbenzene	**1.7**	**J ^c**	5.0	0.20	ug/L			09/10/20 17:47	1
Methyl tertiary butyl ether	**3.0**		1.0	0.20	ug/L			09/10/20 17:47	1
Toluene	**0.47**	**J**	1.0	0.20	ug/L			09/10/20 17:47	1
Xylenes, Total	**5.2**	**J**	6.0	1.4	ug/L			09/10/20 17:47	1
t-Butyl alcohol	ND		50	12	ug/L			09/10/20 17:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*		*09/10/20 17:47*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*09/10/20 17:47*	*1*
Dibromofluoromethane (Surr)	*93*		*80 - 120*		*09/10/20 17:47*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*09/10/20 17:47*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**0.14**	**J**	0.50	0.10	ug/L		09/08/20 17:40	09/12/20 16:44	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		09/08/20 17:40	09/12/20 16:44	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		09/08/20 17:40	09/12/20 16:44	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		09/08/20 17:40	09/12/20 16:44	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		09/08/20 17:40	09/12/20 16:44	1
Chrysene	ND		0.50	0.10	ug/L		09/08/20 17:40	09/12/20 16:44	1
Fluorene	ND		0.50	0.10	ug/L		09/08/20 17:40	09/12/20 16:44	1
Naphthalene	**1.2**		0.50	0.10	ug/L		09/08/20 17:40	09/12/20 16:44	1
Phenanthrene	**0.26**	**J**	0.50	0.10	ug/L		09/08/20 17:40	09/12/20 16:44	1
Pyrene	ND		0.50	0.10	ug/L		09/08/20 17:40	09/12/20 16:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*77*		*44 - 102*	*09/08/20 17:40*	*09/12/20 16:44*	*1*
Nitrobenzene-d5 (Surr)	*76*		*38 - 113*	*09/08/20 17:40*	*09/12/20 16:44*	*1*
p-Terphenyl-d14 (Surr)	*83*		*34 - 128*	*09/08/20 17:40*	*09/12/20 16:44*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0095	ug/L		09/14/20 22:49	09/16/20 05:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*100*		*46 - 136*	*09/14/20 22:49*	*09/16/20 05:08*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*87*		*46 - 136*	*09/14/20 22:49*	*09/16/20 05:08*	*1*

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50	0.071	ug/L		09/08/20 05:02	09/10/20 18:39	1

Client Sample ID: S-449_20200902

Date Collected: 09/02/20 10:50
Date Received: 09/02/20 16:18

Lab Sample ID: 410-12761-6

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**12**	**J**	50	10	ug/L			09/11/20 16:06	10
1,2-Dichloroethane	ND	^c	10	3.0	ug/L			09/11/20 16:06	10
1,3,5-Trimethylbenzene	**11**	**J**	50	3.0	ug/L			09/11/20 16:06	10
C4-C12-TPH-GRO	**13000**		500	290	ug/L			09/11/20 16:06	10
Ethylbenzene	**43**		10	4.0	ug/L			09/11/20 16:06	10
Isopropylbenzene	**32**	**J**	50	2.0	ug/L			09/11/20 16:06	10
Methyl tertiary butyl ether	**650**		10	2.0	ug/L			09/11/20 16:06	10
Toluene	**180**		10	2.0	ug/L			09/11/20 16:06	10
Xylenes, Total	**130**		60	14	ug/L			09/11/20 16:06	10
t-Butyl alcohol	**330**	**J**	500	120	ug/L			09/11/20 16:06	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*		*09/11/20 16:06*	*10*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*09/11/20 16:06*	*10*
Dibromofluoromethane (Surr)	*91*		*80 - 120*		*09/11/20 16:06*	*10*
Toluene-d8 (Surr)	*107*		*80 - 120*		*09/11/20 16:06*	*10*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**3400**		100	20	ug/L			09/11/20 16:30	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*		*09/11/20 16:30*	*100*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*09/11/20 16:30*	*100*
Dibromofluoromethane (Surr)	*91*		*80 - 120*		*09/11/20 16:30*	*100*
Toluene-d8 (Surr)	*106*		*80 - 120*		*09/11/20 16:30*	*100*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**0.19**	**J**	0.51	0.10	ug/L		09/08/20 17:40	09/12/20 17:15	1
Benzo[a]anthracene	ND		0.51	0.10	ug/L		09/08/20 17:40	09/12/20 17:15	1
Benzo[a]pyrene	ND		0.51	0.10	ug/L		09/08/20 17:40	09/12/20 17:15	1
Benzo[b]fluoranthene	ND		0.51	0.10	ug/L		09/08/20 17:40	09/12/20 17:15	1
Benzo[g,h,i]perylene	ND		0.51	0.10	ug/L		09/08/20 17:40	09/12/20 17:15	1
Chrysene	ND		0.51	0.10	ug/L		09/08/20 17:40	09/12/20 17:15	1
Fluorene	ND		0.51	0.10	ug/L		09/08/20 17:40	09/12/20 17:15	1
Naphthalene	**4.6**		0.51	0.10	ug/L		09/08/20 17:40	09/12/20 17:15	1
Phenanthrene	**0.49**	**J**	0.51	0.10	ug/L		09/08/20 17:40	09/12/20 17:15	1
Pyrene	**0.31**	**J**	0.51	0.10	ug/L		09/08/20 17:40	09/12/20 17:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*76*		*44 - 102*	*09/08/20 17:40*	*09/12/20 17:15*	*1*
Nitrobenzene-d5 (Surr)	*78*		*38 - 113*	*09/08/20 17:40*	*09/12/20 17:15*	*1*
p-Terphenyl-d14 (Surr)	*64*		*34 - 128*	*09/08/20 17:40*	*09/12/20 17:15*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**6.6**		5.0	1.0	ug/L		09/03/20 07:41	09/03/20 13:39	1
Ethene (1C)	ND		5.0	1.0	ug/L		09/03/20 07:41	09/03/20 13:39	1

Client Sample ID: S-449_20200902

Date Collected: 09/02/20 10:50
Date Received: 09/02/20 16:18

Lab Sample ID: 410-12761-6

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*90*		*28 - 140*	*09/03/20 07:41*	*09/03/20 13:39*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**24000**		1000	600	ug/L		09/04/20 09:30	09/04/20 13:07	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*94*		*28 - 140*	*09/04/20 09:30*	*09/04/20 13:07*	*200*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (2C)	ND		0.029	0.0096	ug/L		09/14/20 22:49	09/16/20 05:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*97*		*46 - 136*	*09/14/20 22:49*	*09/16/20 05:25*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*92*		*46 - 136*	*09/14/20 22:49*	*09/16/20 05:25*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	**1.0**		0.096	0.035	mg/L		09/09/20 08:16	09/10/20 13:07	1
>C22-C44 (1C)	**0.35**		0.096	0.035	mg/L		09/09/20 08:16	09/10/20 13:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*145*	*XH*	*21 - 116*	*09/09/20 08:16*	*09/10/20 13:07*	*1*
o- terphenyl (Surr) (1C)	*99*		*51 - 126*	*09/09/20 08:16*	*09/10/20 13:07*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND		0.50	0.25	mg/L			09/03/20 08:17	5

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**12**		5.0	1.5	mg/L			09/03/20 08:17	5
Chloride	**140**	**J**	200	100	mg/L			09/03/20 08:35	500

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**32**		0.20	0.096	mg/L		09/03/20 03:12	09/04/20 14:23	1
Iron	**13**		0.20	0.040	mg/L		09/03/20 03:12	09/04/20 14:23	1
Magnesium	**22**		0.10	0.040	mg/L		09/03/20 03:12	09/04/20 14:23	1
Potassium	**5.0**		0.50	0.20	mg/L		09/03/20 03:12	09/04/20 14:23	1
Sodium	**81**		1.0	0.24	mg/L		09/03/20 03:12	09/04/20 14:23	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50	0.071	ug/L		09/08/20 05:02	09/10/20 18:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**180**		8.0	8.0	mg/L			09/03/20 21:37	1
Ammonia-N	**0.69**	**J**	1.1	0.36	mg/L		09/08/20 09:35	09/08/20 13:05	1
Sulfide	ND		0.30	0.10	mg/L			09/08/20 13:04	1

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-12761-1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-12761-1	EB_20200901	90	98	95	104
410-12761-2	TB_20200901	92	95	96	103
410-12761-3	S-447_20200901	88	99	93	107
410-12761-4	S-223_20200901	86	96	92	103
410-12761-4 - DL	S-223_20200901	87	96	92	104
410-12761-5	S-448_20200902	88	99	93	104
410-12761-6	S-449_20200902	88	98	91	107
410-12761-6 - DL	S-449_20200902	88	97	91	106
LCS 410-42498/5	Lab Control Sample	90	100	92	107
LCS 410-42498/7	Lab Control Sample	88	99	94	106
LCS 410-42901/5	Lab Control Sample	90	95	92	105
LCS 410-42901/7	Lab Control Sample	88	98	93	105
LCSD 410-42498/6	Lab Control Sample Dup	92	98	95	106
LCSD 410-42498/8	Lab Control Sample Dup	89	98	92	106
LCSD 410-42901/6	Lab Control Sample Dup	90	99	92	106
LCSD 410-42901/8	Lab Control Sample Dup	88	96	92	105
MB 410-42498/9	Method Blank	90	95	95	104
MB 410-42901/9	Method Blank	86	96	91	103

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(44-102)	(38-113)	(34-128)
410-12761-1	EB_20200901	80	99	93
410-12761-3	S-447_20200901	64	90	32 XL
410-12761-4	S-223_20200901	79	3 XL	39
410-12761-4 - DL	S-223_20200901	74	2 XL	35
410-12761-5	S-448_20200902	77	76	83
410-12761-6	S-449_20200902	76	78	64
LCS 410-41517/2-A	Lab Control Sample	74	74	79
LCS 410-41733/2-A	Lab Control Sample	80	88	92
MB 410-41517/1-A	Method Blank	67	75	80
MB 410-41733/1-A	Method Blank	58	72	75

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-12761-1

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)										
		Propene1										
Lab Sample ID	Client Sample ID	(28-140)										
410-12761-6	S-449_20200902	90										
410-12761-6 - DL	S-449_20200902	94										
LCS 410-40523/2-A	Lab Control Sample	96										
LCS 410-41075/2-A	Lab Control Sample	103										
LCSD 410-40523/3-A	Lab Control Sample Dup	94										
MB 410-40523/1-A	Method Blank	95										
MB 410-41075/1-A	Method Blank	104										

Surrogate Legend

Propene = Propene

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)										
		1122TCA1	1122TCA2									
Lab Sample ID	Client Sample ID	(46-136)	(46-136)									
410-12761-1	EB_20200901	87	89									
410-12761-2	TB_20200901	100	84									
410-12761-3	S-447_20200901	119	88									
410-12761-4	S-223_20200901	120	99									
410-12761-5	S-448_20200902	100	87									
410-12761-6	S-449_20200902	97	92									
LCS 410-43228/2-A	Lab Control Sample	95	82									
LCS 410-43759/2-A	Lab Control Sample	97	90									
LCSD 410-43228/3-A	Lab Control Sample Dup	95	83									
LCSD 410-43759/3-A	Lab Control Sample Dup	95	85									
MB 410-43228/1-A	Method Blank	95	84									
MB 410-43759/1-A	Method Blank	103	90									

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)										
		CBNZ1	OTP1									
Lab Sample ID	Client Sample ID	(21-116)	(51-126)									
410-12761-6	S-449_20200902	145 XH	99									
LCS 410-41952/2-A	Lab Control Sample	67	97									
LCSD 410-41952/3-A	Lab Control Sample Dup	63	96									
MB 410-41952/1-A	Method Blank	65	86									

Surrogate Legend

CBNZ = Chlorobenzene (Surr)

OTP = o- terphenyl (Surr)

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-42498/9
Matrix: Water
Analysis Batch: 42498

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			09/10/20 13:22	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			09/10/20 13:22	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			09/10/20 13:22	1
Benzene	ND		1.0	0.20	ug/L			09/10/20 13:22	1
C4-C12-TPH-GRO	ND		50	29	ug/L			09/10/20 13:22	1
Ethylbenzene	ND		1.0	0.40	ug/L			09/10/20 13:22	1
Isopropylbenzene	ND		5.0	0.20	ug/L			09/10/20 13:22	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			09/10/20 13:22	1
Toluene	ND		1.0	0.20	ug/L			09/10/20 13:22	1
Xylenes, Total	ND		6.0	1.4	ug/L			09/10/20 13:22	1
t-Butyl alcohol	ND		50	12	ug/L			09/10/20 13:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*		*09/10/20 13:22*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*09/10/20 13:22*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*09/10/20 13:22*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*09/10/20 13:22*	*1*

Lab Sample ID: LCS 410-42498/5
Matrix: Water
Analysis Batch: 42498

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	20.0	18.7		ug/L		94	75 - 120
1,2-Dichloroethane	20.0	14.7		ug/L		74	73 - 124
1,3,5-Trimethylbenzene	20.0	18.1		ug/L		91	75 - 120
Benzene	20.0	16.9		ug/L		84	80 - 120
Ethylbenzene	20.0	19.2		ug/L		96	80 - 120
Isopropylbenzene	20.0	17.6		ug/L		88	80 - 120
Methyl tertiary butyl ether	20.0	16.1		ug/L		81	69 - 122
Naphthalene	20.0	16.6		ug/L		83	53 - 124
Toluene	20.0	19.0		ug/L		95	80 - 120
Xylenes, Total	60.0	53.8		ug/L		90	80 - 120
t-Butyl alcohol	200	183		ug/L		92	60 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*92*		*80 - 120*
Toluene-d8 (Surr)	*107*		*80 - 120*

Lab Sample ID: LCS 410-42498/7
Matrix: Water
Analysis Batch: 42498

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C4-C12-TPH-GRO	1000	871		ug/L		87	67 - 120

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-42498/7
Matrix: Water
Analysis Batch: 42498

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*94*		*80 - 120*
Toluene-d8 (Surr)	*106*		*80 - 120*

Lab Sample ID: LCSD 410-42498/6
Matrix: Water
Analysis Batch: 42498

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene			20.0	19.6		ug/L		98	75 - 120	4	30
1,2-Dichloroethane			20.0	15.2		ug/L		76	73 - 124	3	30
1,3,5-Trimethylbenzene			20.0	19.8		ug/L		99	75 - 120	9	30
Benzene			20.0	18.0		ug/L		90	80 - 120	6	30
Ethylbenzene			20.0	20.6		ug/L		103	80 - 120	7	30
Isopropylbenzene			20.0	18.9		ug/L		95	80 - 120	8	30
Methyl tertiary butyl ether			20.0	16.2		ug/L		81	69 - 122	0	30
Naphthalene			20.0	16.7		ug/L		84	53 - 124	1	30
Toluene			20.0	20.3		ug/L		102	80 - 120	7	30
Xylenes, Total			60.0	57.2		ug/L		95	80 - 120	6	30
t-Butyl alcohol			200	179		ug/L		90	60 - 130	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*80 - 120*
Toluene-d8 (Surr)	*106*		*80 - 120*

Lab Sample ID: LCSD 410-42498/8
Matrix: Water
Analysis Batch: 42498

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C4-C12-TPH-GRO			1000	857		ug/L		86	67 - 120	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*89*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*92*		*80 - 120*
Toluene-d8 (Surr)	*106*		*80 - 120*

Lab Sample ID: MB 410-42901/9
Matrix: Water
Analysis Batch: 42901

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			09/11/20 12:29	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			09/11/20 12:29	1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-42901/9
Matrix: Water
Analysis Batch: 42901

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			09/11/20 12:29	1
Benzene	ND		1.0	0.20	ug/L			09/11/20 12:29	1
C4-C12-TPH-GRO	ND		50	29	ug/L			09/11/20 12:29	1
Ethylbenzene	ND		1.0	0.40	ug/L			09/11/20 12:29	1
Isopropylbenzene	ND		5.0	0.20	ug/L			09/11/20 12:29	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			09/11/20 12:29	1
Toluene	ND		1.0	0.20	ug/L			09/11/20 12:29	1
Xylenes, Total	ND		6.0	1.4	ug/L			09/11/20 12:29	1
t-Butyl alcohol	ND		50	12	ug/L			09/11/20 12:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*80 - 120*		*09/11/20 12:29*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*09/11/20 12:29*	*1*
Dibromofluoromethane (Surr)	*91*		*80 - 120*		*09/11/20 12:29*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*09/11/20 12:29*	*1*

Lab Sample ID: LCS 410-42901/5
Matrix: Water
Analysis Batch: 42901

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2,4-Trimethylbenzene			20.0	21.0		ug/L		105	75 - 120		
1,2-Dichloroethane			20.0	15.8		ug/L		79	73 - 124		
1,3,5-Trimethylbenzene			20.0	20.8		ug/L		104	75 - 120		
Benzene			20.0	18.6		ug/L		93	80 - 120		
Ethylbenzene			20.0	21.4		ug/L		107	80 - 120		
Isopropylbenzene			20.0	19.9		ug/L		100	80 - 120		
Methyl tertiary butyl ether			20.0	17.5		ug/L		88	69 - 122		
Naphthalene			20.0	18.1		ug/L		91	53 - 124		
Toluene			20.0	20.9		ug/L		105	80 - 120		
Xylenes, Total			60.0	60.2		ug/L		100	80 - 120		
t-Butyl alcohol			200	204		ug/L		102	60 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*
Dibromofluoromethane (Surr)	*92*		*80 - 120*
Toluene-d8 (Surr)	*105*		*80 - 120*

Lab Sample ID: LCS 410-42901/7
Matrix: Water
Analysis Batch: 42901

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C4-C12-TPH-GRO			1000	897		ug/L		90	67 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-42901/7
Matrix: Water
Analysis Batch: 42901

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*93*		*80 - 120*
Toluene-d8 (Surr)	*105*		*80 - 120*

Lab Sample ID: LCSD 410-42901/6
Matrix: Water
Analysis Batch: 42901

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene			20.0	18.8		ug/L		94	75 - 120	11	30
1,2-Dichloroethane			20.0	14.5		ug/L		73	73 - 124	8	30
1,3,5-Trimethylbenzene			20.0	18.8		ug/L		94	75 - 120	10	30
Benzene			20.0	16.8		ug/L		84	80 - 120	10	30
Ethylbenzene			20.0	19.5		ug/L		97	80 - 120	9	30
Isopropylbenzene			20.0	17.9		ug/L		90	80 - 120	11	30
Methyl tertiary butyl ether			20.0	15.9		ug/L		80	69 - 122	10	30
Naphthalene			20.0	16.8		ug/L		84	53 - 124	8	30
Toluene			20.0	19.4		ug/L		97	80 - 120	8	30
Xylenes, Total			60.0	55.6		ug/L		93	80 - 120	8	30
t-Butyl alcohol			200	189		ug/L		94	60 - 130	8	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*92*		*80 - 120*
Toluene-d8 (Surr)	*106*		*80 - 120*

Lab Sample ID: LCSD 410-42901/8
Matrix: Water
Analysis Batch: 42901

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C4-C12-TPH-GRO			1000	934		ug/L		93	67 - 120	4	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*92*		*80 - 120*
Toluene-d8 (Surr)	*105*		*80 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-41517/1-A
Matrix: Water
Analysis Batch: 43391

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 41517

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		09/08/20 09:30	09/14/20 08:37	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-41517/1-A
Matrix: Water
Analysis Batch: 43391

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 41517

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.50	0.10	ug/L		09/08/20 09:30	09/14/20 08:37	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		09/08/20 09:30	09/14/20 08:37	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		09/08/20 09:30	09/14/20 08:37	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		09/08/20 09:30	09/14/20 08:37	1
Chrysene	ND		0.50	0.10	ug/L		09/08/20 09:30	09/14/20 08:37	1
Fluorene	ND		0.50	0.10	ug/L		09/08/20 09:30	09/14/20 08:37	1
Naphthalene	ND		0.50	0.10	ug/L		09/08/20 09:30	09/14/20 08:37	1
Phenanthrene	ND		0.50	0.10	ug/L		09/08/20 09:30	09/14/20 08:37	1
Pyrene	ND		0.50	0.10	ug/L		09/08/20 09:30	09/14/20 08:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*67*		*44 - 102*	*09/08/20 09:30*	*09/14/20 08:37*	*1*
Nitrobenzene-d5 (Surr)	*75*		*38 - 113*	*09/08/20 09:30*	*09/14/20 08:37*	*1*
p-Terphenyl-d14 (Surr)	*80*		*34 - 128*	*09/08/20 09:30*	*09/14/20 08:37*	*1*

Lab Sample ID: LCS 410-41517/2-A
Matrix: Water
Analysis Batch: 43391

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 41517

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.1	39.1		ug/L		78	67 - 116
Benzo[a]anthracene	50.0	41.1		ug/L		82	68 - 123
Benzo[a]pyrene	50.2	38.3		ug/L		76	71 - 117
Benzo[b]fluoranthene	50.1	38.0		ug/L		76	69 - 121
Benzo[g,h,i]perylene	50.1	39.7		ug/L		79	60 - 119
Chrysene	50.0	39.5		ug/L		79	65 - 121
Fluorene	50.1	37.9		ug/L		76	56 - 115
Naphthalene	50.4	33.5		ug/L		67	51 - 102
Phenanthrene	50.2	39.6		ug/L		79	65 - 113
Pyrene	50.4	39.4		ug/L		78	65 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*74*		*44 - 102*
Nitrobenzene-d5 (Surr)	*74*		*38 - 113*
p-Terphenyl-d14 (Surr)	*79*		*34 - 128*

Lab Sample ID: MB 410-41733/1-A
Matrix: Water
Analysis Batch: 43244

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 41733

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		09/08/20 17:40	09/12/20 23:44	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		09/08/20 17:40	09/12/20 23:44	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		09/08/20 17:40	09/12/20 23:44	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		09/08/20 17:40	09/12/20 23:44	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		09/08/20 17:40	09/12/20 23:44	1
Chrysene	ND		0.50	0.10	ug/L		09/08/20 17:40	09/12/20 23:44	1
Fluorene	ND		0.50	0.10	ug/L		09/08/20 17:40	09/12/20 23:44	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-41733/1-A
Matrix: Water
Analysis Batch: 43244

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 41733

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.50	0.10	ug/L		09/08/20 17:40	09/12/20 23:44	1
Phenanthrene	ND		0.50	0.10	ug/L		09/08/20 17:40	09/12/20 23:44	1
Pyrene	ND		0.50	0.10	ug/L		09/08/20 17:40	09/12/20 23:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*58*		*44 - 102*	*09/08/20 17:40*	*09/12/20 23:44*	*1*
Nitrobenzene-d5 (Surr)	*72*		*38 - 113*	*09/08/20 17:40*	*09/12/20 23:44*	*1*
p-Terphenyl-d14 (Surr)	*75*		*34 - 128*	*09/08/20 17:40*	*09/12/20 23:44*	*1*

Lab Sample ID: LCS 410-41733/2-A
Matrix: Water
Analysis Batch: 43244

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 41733

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.1	47.3		ug/L		94	67 - 116
Benzo[a]anthracene	50.0	52.7		ug/L		105	68 - 123
Benzo[a]pyrene	50.2	51.3		ug/L		102	71 - 117
Benzo[b]fluoranthene	50.1	53.5		ug/L		107	69 - 121
Benzo[g,h,i]perylene	50.1	50.1		ug/L		100	60 - 119
Chrysene	50.0	50.9		ug/L		102	65 - 121
Fluorene	50.1	43.9		ug/L		88	56 - 115
Naphthalene	50.4	36.9		ug/L		73	51 - 102
Phenanthrene	50.2	48.4		ug/L		96	65 - 113
Pyrene	50.4	49.0		ug/L		97	65 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*80*		*44 - 102*
Nitrobenzene-d5 (Surr)	*88*		*38 - 113*
p-Terphenyl-d14 (Surr)	*92*		*34 - 128*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-40523/1-A
Matrix: Water
Analysis Batch: 40509

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 40523

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		09/03/20 07:41	09/03/20 08:15	1
Ethene (1C)	ND		5.0	1.0	ug/L		09/03/20 07:41	09/03/20 08:15	1
Methane (1C)	ND		5.0	3.0	ug/L		09/03/20 07:41	09/03/20 08:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*95*		*28 - 140*	*09/03/20 07:41*	*09/03/20 08:15*	*1*

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCS 410-40523/2-A
Matrix: Water
Analysis Batch: 40509

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 40523

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	55.7		ug/L		94	85 - 115		
Ethene (1C)			60.4	58.0		ug/L		96	83 - 115		
Methane (1C)			59.4	59.3		ug/L		100	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*96*		*28 - 140*

Lab Sample ID: LCSD 410-40523/3-A
Matrix: Water
Analysis Batch: 40509

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 40523

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	56.1		ug/L		94	85 - 115	1	20
Ethene (1C)			60.4	58.0		ug/L		96	83 - 115	0	20
Methane (1C)			59.4	59.2		ug/L		100	85 - 115	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*94*		*28 - 140*

Lab Sample ID: MB 410-41075/1-A
Matrix: Water
Analysis Batch: 41070

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 41075

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		09/04/20 09:30	09/04/20 10:06	1
Ethene (1C)	ND		5.0	1.0	ug/L		09/04/20 09:30	09/04/20 10:06	1
Methane (1C)	ND		5.0	3.0	ug/L		09/04/20 09:30	09/04/20 10:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*104*		*28 - 140*	*09/04/20 09:30*	*09/04/20 10:06*	*1*

Lab Sample ID: LCS 410-41075/2-A
Matrix: Water
Analysis Batch: 41070

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 41075

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	62.6		ug/L		105	85 - 115		
Ethene (1C)			60.4	64.4		ug/L		107	83 - 115		
Methane (1C)			59.4	64.2		ug/L		108	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*103*		*28 - 140*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-43228/1-A
Matrix: Water
Analysis Batch: 43647

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 43228

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		09/12/20 13:49	09/14/20 19:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*95*		*46 - 136*	*09/12/20 13:49*	*09/14/20 19:39*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*84*		*46 - 136*	*09/12/20 13:49*	*09/14/20 19:39*	*1*

Lab Sample ID: LCS 410-43228/2-A
Matrix: Water
Analysis Batch: 43647

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 43228

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.119		ug/L		93	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*95*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*82*		*46 - 136*

Lab Sample ID: LCSD 410-43228/3-A
Matrix: Water
Analysis Batch: 43647

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 43228

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.111		ug/L		87	60 - 140	7	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*95*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*83*		*46 - 136*

Lab Sample ID: MB 410-43759/1-A
Matrix: Water
Analysis Batch: 44181

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 43759

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		09/14/20 22:49	09/15/20 22:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*103*		*46 - 136*	*09/14/20 22:49*	*09/15/20 22:55*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*90*		*46 - 136*	*09/14/20 22:49*	*09/15/20 22:55*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: LCS 410-43759/2-A
Matrix: Water
Analysis Batch: 44181

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 43759

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.166		ug/L		130	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*97*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*90*		*46 - 136*

Lab Sample ID: LCSD 410-43759/3-A
Matrix: Water
Analysis Batch: 44181

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 43759

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.165		ug/L		129	60 - 140	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*95*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*85*		*46 - 136*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 410-41952/1-A
Matrix: Water
Analysis Batch: 42497

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 41952

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C22 (1C)	ND		0.10	0.037	mg/L		09/09/20 08:16	09/10/20 11:42	1
>C22-C44 (1C)	ND		0.10	0.037	mg/L		09/09/20 08:16	09/10/20 11:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Chlorobenzene (Surr) (1C)	*65*		*21 - 116*	*09/09/20 08:16*	*09/10/20 11:42*	*1*
o- terphenyl (Surr) (1C)	*86*		*51 - 126*	*09/09/20 08:16*	*09/10/20 11:42*	*1*

Lab Sample ID: LCS 410-41952/2-A
Matrix: Water
Analysis Batch: 42497

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 41952

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
DRO (C10-C28) (1C)			0.800	0.526		mg/L		66	48 - 116		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Chlorobenzene (Surr) (1C)	*67*		*21 - 116*
o- terphenyl (Surr) (1C)	*97*		*51 - 126*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) (Continued)

Lab Sample ID: LCSD 410-41952/3-A
Matrix: Water
Analysis Batch: 42497

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 41952

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (C10-C28) (1C)			0.800	0.517		mg/L		65	48 - 116	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Chlorobenzene (Surr) (1C)	*63*		*21 - 116*
o- terphenyl (Surr) (1C)	*96*		*51 - 126*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Lab Sample ID: MB 410-40474/4
Matrix: Water
Analysis Batch: 40474

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND		0.10	0.050	mg/L			09/03/20 07:04	1

Lab Sample ID: LCS 410-40474/3
Matrix: Water
Analysis Batch: 40474

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrogen, Nitrate			0.750	0.754		mg/L		100	90 - 110		

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 410-40473/4
Matrix: Water
Analysis Batch: 40473

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1.0	0.30	mg/L			09/03/20 07:04	1
Chloride	ND		0.40	0.20	mg/L			09/03/20 07:04	1

Lab Sample ID: LCS 410-40473/3
Matrix: Water
Analysis Batch: 40473

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			7.50	7.67		mg/L		102	90 - 110		
Chloride			3.00	2.96		mg/L		99	90 - 110		

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-40457/1-A
Matrix: Water
Analysis Batch: 41325

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 40457

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.20	0.096	mg/L		09/03/20 03:12	09/04/20 13:55	1
Iron	ND		0.20	0.040	mg/L		09/03/20 03:12	09/04/20 13:55	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 410-40457/1-A
Matrix: Water
Analysis Batch: 41325

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 40457

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	ND		0.10	0.040	mg/L		09/03/20 03:12	09/04/20 13:55	1
Potassium	ND		0.50	0.20	mg/L		09/03/20 03:12	09/04/20 13:55	1
Sodium	ND		1.0	0.24	mg/L		09/03/20 03:12	09/04/20 13:55	1

Lab Sample ID: LCS 410-40457/2-A
Matrix: Water
Analysis Batch: 41325

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 40457

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	0.400	0.421		mg/L		105	80 - 120
Iron	0.402	0.425		mg/L		106	80 - 120
Magnesium	0.200	0.211		mg/L		106	80 - 120
Potassium	5.60	5.57		mg/L		100	80 - 120
Sodium	2.00	2.04		mg/L		102	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 410-41496/1-A
Matrix: Water
Analysis Batch: 43489

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 41496

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		09/08/20 04:58	09/11/20 16:50	1

Lab Sample ID: LCS 410-41496/2-A
Matrix: Water
Analysis Batch: 43489

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 41496

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	30.0	30.7		ug/L		103	90 - 115

Lab Sample ID: MB 410-41497/1-A
Matrix: Water
Analysis Batch: 42917

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 41497

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50	0.071	ug/L		09/08/20 05:02	09/10/20 18:21	1

Lab Sample ID: LCS 410-41497/2-A
Matrix: Water
Analysis Batch: 42917

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 41497

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	30.0	31.7		ug/L		106	90 - 115

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 410-12761-1 MS
Matrix: Water
Analysis Batch: 43489

Client Sample ID: EB_20200901
Prep Type: Dissolved
Prep Batch: 41496

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead	ND		30.0	30.9		ug/L		103	75 - 125		

Lab Sample ID: 410-12761-1 MSD
Matrix: Water
Analysis Batch: 43489

Client Sample ID: EB_20200901
Prep Type: Dissolved
Prep Batch: 41496

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	ND		30.0	30.3		ug/L		101	75 - 125	2	20

Lab Sample ID: 410-12761-4 MS
Matrix: Water
Analysis Batch: 43489

Client Sample ID: S-223_20200901
Prep Type: Dissolved
Prep Batch: 41496

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead	ND		30.0	30.8		ug/L		103	75 - 125		

Lab Sample ID: 410-12761-4 MSD
Matrix: Water
Analysis Batch: 43489

Client Sample ID: S-223_20200901
Prep Type: Dissolved
Prep Batch: 41496

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	ND		30.0	31.2		ug/L		104	75 - 125	1	20

Lab Sample ID: 410-12761-1 DU
Matrix: Water
Analysis Batch: 43489

Client Sample ID: EB_20200901
Prep Type: Dissolved
Prep Batch: 41496

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Lead	ND			ND		ug/L				NC	20

Lab Sample ID: 410-12761-4 DU
Matrix: Water
Analysis Batch: 43489

Client Sample ID: S-223_20200901
Prep Type: Dissolved
Prep Batch: 41496

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Lead	ND			ND		ug/L				NC	20

Lab Sample ID: 410-12761-3 MS
Matrix: Water
Analysis Batch: 42917

Client Sample ID: S-447_20200901
Prep Type: Dissolved
Prep Batch: 41497

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead	1.1	^	30.0	31.6		ug/L		102	75 - 125		

Lab Sample ID: 410-12761-3 MSD
Matrix: Water
Analysis Batch: 42917

Client Sample ID: S-447_20200901
Prep Type: Dissolved
Prep Batch: 41497

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	1.1	^	30.0	31.4		ug/L		101	75 - 125	1	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: 410-12761-3 DU
Matrix: Water
Analysis Batch: 42917

Client Sample ID: S-447_20200901
Prep Type: Dissolved
Prep Batch: 41497

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Lead	1.1	^		1.08		ug/L				3	20

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 410-41184/20
Matrix: Water
Analysis Batch: 41184

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8.0	8.0	mg/L			09/03/20 20:50	1

Lab Sample ID: LCS 410-41184/21
Matrix: Water
Analysis Batch: 41184

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Alkalinity as CaCO3 to pH 4.5			189	165		mg/L		87	82 - 106		

Lab Sample ID: 410-12761-6 DU
Matrix: Water
Analysis Batch: 41184

Client Sample ID: S-449_20200902
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	180			181		mg/L				1	5

Method: 4500 NH3 C-2011 - Ammonia

Lab Sample ID: MB 410-41599/1-A
Matrix: Water
Analysis Batch: 41676

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 41599

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia-N	ND		0.75	0.25	mg/L		09/08/20 09:35	09/08/20 13:05	1

Lab Sample ID: LCS 410-41599/2-A
Matrix: Water
Analysis Batch: 41676

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 41599

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia-N			500	467		mg/L		93	93 - 100		

Method: 4500 S2 D-2011 - Sulfide, Total

Lab Sample ID: MB 410-41675/1
Matrix: Water
Analysis Batch: 41675

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.30	0.10	mg/L			09/08/20 13:04	1

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-12761-1

Method: 4500 S2 D-2011 - Sulfide, Total (Continued)

Lab Sample ID: LCS 410-41675/13
Matrix: Water
Analysis Batch: 41675

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide			1.00	0.982		mg/L		98	90 - 110		

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-12761-1

GC/MS VOA

Analysis Batch: 42498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12761-1	EB_20200901	Total/NA	Water	8260C/UST	
410-12761-2	TB_20200901	Total/NA	Water	8260C/UST	
410-12761-3	S-447_20200901	Total/NA	Water	8260C/UST	
410-12761-5	S-448_20200902	Total/NA	Water	8260C/UST	
MB 410-42498/9	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-42498/5	Lab Control Sample	Total/NA	Water	8260C/UST	
LCS 410-42498/7	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-42498/6	Lab Control Sample Dup	Total/NA	Water	8260C/UST	
LCSD 410-42498/8	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

Analysis Batch: 42901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12761-4	S-223_20200901	Total/NA	Water	8260C/UST	
410-12761-4 - DL	S-223_20200901	Total/NA	Water	8260C/UST	
410-12761-6	S-449_20200902	Total/NA	Water	8260C/UST	
410-12761-6 - DL	S-449_20200902	Total/NA	Water	8260C/UST	
MB 410-42901/9	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-42901/5	Lab Control Sample	Total/NA	Water	8260C/UST	
LCS 410-42901/7	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-42901/6	Lab Control Sample Dup	Total/NA	Water	8260C/UST	
LCSD 410-42901/8	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

GC/MS Semi VOA

Prep Batch: 41517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12761-1	EB_20200901	Total/NA	Water	3510C	
410-12761-3	S-447_20200901	Total/NA	Water	3510C	
410-12761-4	S-223_20200901	Total/NA	Water	3510C	
410-12761-4 - DL	S-223_20200901	Total/NA	Water	3510C	
MB 410-41517/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-41517/2-A	Lab Control Sample	Total/NA	Water	3510C	

Prep Batch: 41733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12761-5	S-448_20200902	Total/NA	Water	3510C	
410-12761-6	S-449_20200902	Total/NA	Water	3510C	
MB 410-41733/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-41733/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 43226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12761-5	S-448_20200902	Total/NA	Water	8270D	41733
410-12761-6	S-449_20200902	Total/NA	Water	8270D	41733

Analysis Batch: 43244

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-41733/1-A	Method Blank	Total/NA	Water	8270D	41733
LCS 410-41733/2-A	Lab Control Sample	Total/NA	Water	8270D	41733

GC/MS Semi VOA

Analysis Batch: 43391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-41517/1-A	Method Blank	Total/NA	Water	8270D	41517
LCS 410-41517/2-A	Lab Control Sample	Total/NA	Water	8270D	41517

Analysis Batch: 43967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12761-1	EB_20200901	Total/NA	Water	8270D	41517
410-12761-3	S-447_20200901	Total/NA	Water	8270D	41517
410-12761-4	S-223_20200901	Total/NA	Water	8270D	41517
410-12761-4 - DL	S-223_20200901	Total/NA	Water	8270D	41517

GC VOA

Analysis Batch: 40509

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12761-6	S-449_20200902	Total/NA	Water	RSK-175	40523
MB 410-40523/1-A	Method Blank	Total/NA	Water	RSK-175	40523
LCS 410-40523/2-A	Lab Control Sample	Total/NA	Water	RSK-175	40523
LCSD 410-40523/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	40523

Prep Batch: 40523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12761-6	S-449_20200902	Total/NA	Water	RSK-175	
MB 410-40523/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-40523/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-40523/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 41070

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12761-6 - DL	S-449_20200902	Total/NA	Water	RSK-175	41075
MB 410-41075/1-A	Method Blank	Total/NA	Water	RSK-175	41075
LCS 410-41075/2-A	Lab Control Sample	Total/NA	Water	RSK-175	41075

Prep Batch: 41075

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12761-6 - DL	S-449_20200902	Total/NA	Water	RSK-175	
MB 410-41075/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-41075/2-A	Lab Control Sample	Total/NA	Water	RSK-175	

GC Semi VOA

Prep Batch: 41952

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12761-6	S-449_20200902	Total/NA	Water	3510C	
MB 410-41952/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-41952/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-41952/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 42497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12761-6	S-449_20200902	Total/NA	Water	8015C	41952
MB 410-41952/1-A	Method Blank	Total/NA	Water	8015C	41952
LCS 410-41952/2-A	Lab Control Sample	Total/NA	Water	8015C	41952

GC Semi VOA (Continued)

Analysis Batch: 42497 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 410-41952/3-A	Lab Control Sample Dup	Total/NA	Water	8015C	41952

Prep Batch: 43228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12761-2	TB_20200901	Total/NA	Water	8011	
MB 410-43228/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-43228/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-43228/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 43647

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12761-2	TB_20200901	Total/NA	Water	8011	43228
MB 410-43228/1-A	Method Blank	Total/NA	Water	8011	43228
LCS 410-43228/2-A	Lab Control Sample	Total/NA	Water	8011	43228
LCSD 410-43228/3-A	Lab Control Sample Dup	Total/NA	Water	8011	43228

Prep Batch: 43759

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12761-1	EB_20200901	Total/NA	Water	8011	
410-12761-3	S-447_20200901	Total/NA	Water	8011	
410-12761-4	S-223_20200901	Total/NA	Water	8011	
410-12761-5	S-448_20200902	Total/NA	Water	8011	
410-12761-6	S-449_20200902	Total/NA	Water	8011	
MB 410-43759/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-43759/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-43759/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 44181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12761-1	EB_20200901	Total/NA	Water	8011	43759
410-12761-3	S-447_20200901	Total/NA	Water	8011	43759
410-12761-4	S-223_20200901	Total/NA	Water	8011	43759
410-12761-5	S-448_20200902	Total/NA	Water	8011	43759
410-12761-6	S-449_20200902	Total/NA	Water	8011	43759
MB 410-43759/1-A	Method Blank	Total/NA	Water	8011	43759
LCS 410-43759/2-A	Lab Control Sample	Total/NA	Water	8011	43759
LCSD 410-43759/3-A	Lab Control Sample Dup	Total/NA	Water	8011	43759

HPLC/IC

Analysis Batch: 40473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12761-6	S-449_20200902	Total/NA	Water	EPA 300.0 R2.1	
410-12761-6	S-449_20200902	Total/NA	Water	EPA 300.0 R2.1	
MB 410-40473/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-40473/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 40474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12761-6	S-449_20200902	Total/NA	Water	EPA 300.0 R2.1	
MB 410-40474/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	

HPLC/IC (Continued)

Analysis Batch: 40474 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-40474/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 40457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12761-6	S-449_20200902	Total Recoverable	Water	3005A	
MB 410-40457/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-40457/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 41325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12761-6	S-449_20200902	Total Recoverable	Water	6010C	40457
MB 410-40457/1-A	Method Blank	Total Recoverable	Water	6010C	40457
LCS 410-40457/2-A	Lab Control Sample	Total Recoverable	Water	6010C	40457

Filtration Batch: 41449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12761-1	EB_20200901	Dissolved	Water	Filtration	
410-12761-3	S-447_20200901	Dissolved	Water	Filtration	
410-12761-4	S-223_20200901	Dissolved	Water	Filtration	
410-12761-5	S-448_20200902	Dissolved	Water	Filtration	
410-12761-6	S-449_20200902	Dissolved	Water	Filtration	
410-12761-1 MS	EB_20200901	Dissolved	Water	Filtration	
410-12761-1 MSD	EB_20200901	Dissolved	Water	Filtration	
410-12761-3 MS	S-447_20200901	Dissolved	Water	Filtration	
410-12761-3 MSD	S-447_20200901	Dissolved	Water	Filtration	
410-12761-4 MS	S-223_20200901	Dissolved	Water	Filtration	
410-12761-4 MSD	S-223_20200901	Dissolved	Water	Filtration	
410-12761-1 DU	EB_20200901	Dissolved	Water	Filtration	
410-12761-3 DU	S-447_20200901	Dissolved	Water	Filtration	
410-12761-4 DU	S-223_20200901	Dissolved	Water	Filtration	

Prep Batch: 41496

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12761-1	EB_20200901	Dissolved	Water	Non-Digest Prep	41449
410-12761-4	S-223_20200901	Dissolved	Water	Non-Digest Prep	41449
MB 410-41496/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-41496/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	
410-12761-1 MS	EB_20200901	Dissolved	Water	Non-Digest Prep	41449
410-12761-1 MSD	EB_20200901	Dissolved	Water	Non-Digest Prep	41449
410-12761-4 MS	S-223_20200901	Dissolved	Water	Non-Digest Prep	41449
410-12761-4 MSD	S-223_20200901	Dissolved	Water	Non-Digest Prep	41449
410-12761-1 DU	EB_20200901	Dissolved	Water	Non-Digest Prep	41449
410-12761-4 DU	S-223_20200901	Dissolved	Water	Non-Digest Prep	41449

Prep Batch: 41497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12761-3	S-447_20200901	Dissolved	Water	Non-Digest Prep	41449
410-12761-5	S-448_20200902	Dissolved	Water	Non-Digest Prep	41449
410-12761-6	S-449_20200902	Dissolved	Water	Non-Digest Prep	41449

Metals (Continued)

Prep Batch: 41497 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-41497/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-41497/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	
410-12761-3 MS	S-447_20200901	Dissolved	Water	Non-Digest Prep	41449
410-12761-3 MSD	S-447_20200901	Dissolved	Water	Non-Digest Prep	41449
410-12761-3 DU	S-447_20200901	Dissolved	Water	Non-Digest Prep	41449

Analysis Batch: 42917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12761-5	S-448_20200902	Dissolved	Water	6020A	41497
410-12761-6	S-449_20200902	Dissolved	Water	6020A	41497
MB 410-41497/1-A	Method Blank	Total/NA	Water	6020A	41497
LCS 410-41497/2-A	Lab Control Sample	Total/NA	Water	6020A	41497
410-12761-3 MS	S-447_20200901	Dissolved	Water	6020A	41497
410-12761-3 MSD	S-447_20200901	Dissolved	Water	6020A	41497
410-12761-3 DU	S-447_20200901	Dissolved	Water	6020A	41497

Analysis Batch: 43489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12761-1	EB_20200901	Dissolved	Water	6020A	41496
410-12761-4	S-223_20200901	Dissolved	Water	6020A	41496
MB 410-41496/1-A	Method Blank	Total/NA	Water	6020A	41496
LCS 410-41496/2-A	Lab Control Sample	Total/NA	Water	6020A	41496
410-12761-1 MS	EB_20200901	Dissolved	Water	6020A	41496
410-12761-1 MSD	EB_20200901	Dissolved	Water	6020A	41496
410-12761-4 MS	S-223_20200901	Dissolved	Water	6020A	41496
410-12761-4 MSD	S-223_20200901	Dissolved	Water	6020A	41496
410-12761-1 DU	EB_20200901	Dissolved	Water	6020A	41496
410-12761-4 DU	S-223_20200901	Dissolved	Water	6020A	41496

Analysis Batch: 43851

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12761-3	S-447_20200901	Dissolved	Water	6020A	41497

General Chemistry

Analysis Batch: 41184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12761-6	S-449_20200902	Total/NA	Water	2320B-2011	
MB 410-41184/20	Method Blank	Total/NA	Water	2320B-2011	
LCS 410-41184/21	Lab Control Sample	Total/NA	Water	2320B-2011	
410-12761-6 DU	S-449_20200902	Total/NA	Water	2320B-2011	

Prep Batch: 41599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12761-6	S-449_20200902	Total/NA	Water	4500 NH3 B-2011	
MB 410-41599/1-A	Method Blank	Total/NA	Water	4500 NH3 B-2011	
LCS 410-41599/2-A	Lab Control Sample	Total/NA	Water	4500 NH3 B-2011	

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-12761-1

General Chemistry

Analysis Batch: 41675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12761-6	S-449_20200902	Total/NA	Water	4500 S2 D-2011	
MB 410-41675/1	Method Blank	Total/NA	Water	4500 S2 D-2011	
LCS 410-41675/13	Lab Control Sample	Total/NA	Water	4500 S2 D-2011	

Analysis Batch: 41676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12761-6	S-449_20200902	Total/NA	Water	4500 NH3 C-2011	41599
MB 410-41599/1-A	Method Blank	Total/NA	Water	4500 NH3 C-2011	41599
LCS 410-41599/2-A	Lab Control Sample	Total/NA	Water	4500 NH3 C-2011	41599

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-12761-1

Client Sample ID: EB_20200901

Lab Sample ID: 410-12761-1

Date Collected: 09/01/20 13:05

Matrix: Water

Date Received: 09/02/20 16:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	42498	09/10/20 16:10	UKAD	ELLE
Total/NA	Prep	3510C			41517	09/08/20 09:30	R9CT	ELLE
Total/NA	Analysis	8270D		1	43967	09/15/20 20:26	SJ89	ELLE
Total/NA	Prep	8011			43759	09/14/20 22:49	K2IL	ELLE
Total/NA	Analysis	8011		1	44181	09/16/20 04:17	AC3T	ELLE
Dissolved	Filtration	Filtration			41449	09/07/20 05:50	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			41496	09/08/20 04:58	UJL8	ELLE
Dissolved	Analysis	6020A		1	43489	09/11/20 16:54	V5SW	ELLE

Client Sample ID: TB_20200901

Lab Sample ID: 410-12761-2

Date Collected: 08/30/20 00:00

Matrix: Water

Date Received: 09/02/20 16:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	42498	09/10/20 16:34	UKAD	ELLE
Total/NA	Prep	8011			43228	09/12/20 13:49	UKQ8	ELLE
Total/NA	Analysis	8011		1	43647	09/15/20 14:19	AC3T	ELLE

Client Sample ID: S-447_20200901

Lab Sample ID: 410-12761-3

Date Collected: 09/01/20 14:30

Matrix: Water

Date Received: 09/02/20 16:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	42498	09/10/20 20:35	UKAD	ELLE
Total/NA	Prep	3510C			41517	09/08/20 09:30	R9CT	ELLE
Total/NA	Analysis	8270D		1	43967	09/15/20 20:55	SJ89	ELLE
Total/NA	Prep	8011			43759	09/14/20 22:49	K2IL	ELLE
Total/NA	Analysis	8011		1	44181	09/16/20 04:34	AC3T	ELLE
Dissolved	Filtration	Filtration			41449	09/07/20 05:50	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			41497	09/08/20 05:02	UJL8	ELLE
Dissolved	Analysis	6020A		1	43851	09/14/20 14:18	UPJE	ELLE

Client Sample ID: S-223_20200901

Lab Sample ID: 410-12761-4

Date Collected: 09/01/20 15:30

Matrix: Water

Date Received: 09/02/20 16:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	42901	09/11/20 15:17	UKAD	ELLE
Total/NA	Analysis	8260C/UST	DL	50	42901	09/11/20 15:41	UKAD	ELLE
Total/NA	Prep	3510C			41517	09/08/20 09:30	R9CT	ELLE
Total/NA	Analysis	8270D		1	43967	09/15/20 21:24	SJ89	ELLE
Total/NA	Prep	3510C	DL		41517	09/08/20 09:30	R9CT	ELLE
Total/NA	Analysis	8270D	DL	5	43967	09/15/20 22:15	SJ89	ELLE
Total/NA	Prep	8011			43759	09/14/20 22:49	K2IL	ELLE
Total/NA	Analysis	8011		1	44181	09/16/20 04:51	AC3T	ELLE

Client Sample ID: S-223_20200901

Lab Sample ID: 410-12761-4

Date Collected: 09/01/20 15:30

Matrix: Water

Date Received: 09/02/20 16:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	Filtration			41449	09/07/20 05:50	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			41496	09/08/20 04:58	UJL8	ELLE
Dissolved	Analysis	6020A		1	43489	09/11/20 17:32	V5SW	ELLE

Client Sample ID: S-448_20200902

Lab Sample ID: 410-12761-5

Date Collected: 09/02/20 09:25

Matrix: Water

Date Received: 09/02/20 16:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	42498	09/10/20 17:47	UKAD	ELLE
Total/NA	Prep	3510C			41733	09/08/20 17:40	QQ3P	ELLE
Total/NA	Analysis	8270D		1	43226	09/12/20 16:44	SJ89	ELLE
Total/NA	Prep	8011			43759	09/14/20 22:49	K2IL	ELLE
Total/NA	Analysis	8011		1	44181	09/16/20 05:08	AC3T	ELLE
Dissolved	Filtration	Filtration			41449	09/07/20 05:50	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			41497	09/08/20 05:02	UJL8	ELLE
Dissolved	Analysis	6020A		1	42917	09/10/20 18:39	V5SW	ELLE

Client Sample ID: S-449_20200902

Lab Sample ID: 410-12761-6

Date Collected: 09/02/20 10:50

Matrix: Water

Date Received: 09/02/20 16:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		10	42901	09/11/20 16:06	UKAD	ELLE
Total/NA	Analysis	8260C/UST	DL	100	42901	09/11/20 16:30	UKAD	ELLE
Total/NA	Prep	3510C			41733	09/08/20 17:40	QQ3P	ELLE
Total/NA	Analysis	8270D		1	43226	09/12/20 17:15	SJ89	ELLE
Total/NA	Prep	RSK-175	DL		41075	09/04/20 09:30	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	200	41070	09/04/20 13:07	LXF2	ELLE
Total/NA	Prep	RSK-175			40523	09/03/20 07:41	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	40509	09/03/20 13:39	LXF2	ELLE
Total/NA	Prep	8011			43759	09/14/20 22:49	K2IL	ELLE
Total/NA	Analysis	8011		1	44181	09/16/20 05:25	AC3T	ELLE
Total/NA	Prep	3510C			41952	09/09/20 08:16	QTH7	ELLE
Total/NA	Analysis	8015C		1	42497	09/10/20 13:07	YHQ2	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	40473	09/03/20 08:17	GJ35	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	40474	09/03/20 08:17	GJ35	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		500	40473	09/03/20 08:35	GJ35	ELLE
Total Recoverable	Prep	3005A			40457	09/03/20 03:12	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	41325	09/04/20 14:23	UPJE	ELLE
Dissolved	Filtration	Filtration			41449	09/07/20 05:50	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			41497	09/08/20 05:02	UJL8	ELLE
Dissolved	Analysis	6020A		1	42917	09/10/20 18:41	V5SW	ELLE
Total/NA	Analysis	2320B-2011		1	41184	09/03/20 21:37	JB	ELLE

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-12761-1

Client Sample ID: S-449_20200902

Date Collected: 09/02/20 10:50
Date Received: 09/02/20 16:18

Lab Sample ID: 410-12761-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	4500 NH3 B-2011			41599	09/08/20 09:35	UYB0	ELLE
Total/NA	Analysis	4500 NH3 C-2011		1	41676	09/08/20 13:05	UYB0	ELLE
Total/NA	Analysis	4500 S2 D-2011		1	41675	09/08/20 13:04	P8DZ	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp. Job ID: 410-12761-1
Project/Site: PHL Penrose Drilling Sampling

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015C	3510C	Water	>C12-C22 (1C)
8015C	3510C	Water	>C22-C44 (1C)

Method Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-12761-1

Method	Method Description	Protocol	Laboratory
8260C/UST	Volatile Organic Compounds (GC/MS)	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
RSK-175	Dissolved Gases (GC)	RSK	ELLE
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	ELLE
EPA 300.0 R2.1	Anions, Ion Chromatgraphy	EPA	ELLE
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	ELLE
6010C	Metals (ICP)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
2320B-2011	Alkalinity, Total	SM	ELLE
4500 NH3 C-2011	Ammonia	SM	ELLE
4500 S2 D-2011	Sulfide, Total	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
4500 NH3 B-2011	Ammonia, Distillation	SM	ELLE
5030C	Purge and Trap	SW846	ELLE
8011	Microextraction	SW846	ELLE
Filtration	Sample Filtration	None	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-12761-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-12761-1	EB_20200901	Water	09/01/20 13:05	09/02/20 16:18	
410-12761-2	TB_20200901	Water	08/30/20 00:00	09/02/20 16:18	
410-12761-3	S-447_20200901	Water	09/01/20 14:30	09/02/20 16:18	
410-12761-4	S-223_20200901	Water	09/01/20 15:30	09/02/20 16:18	
410-12761-5	S-448_20200902	Water	09/02/20 09:25	09/02/20 16:18	
410-12761-6	S-449_20200902	Water	09/02/20 10:50	09/02/20 16:18	

Environmental Analysis R[illegible] ustody

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Acct. # _____

410-12761 Chain of Custody

[illegible]tal use only

COC # 612319

Client Information	
Client: Evergreen c/o Stantec	Acct. #: 16657
Project Name(s): PHC Penrose Drilling Sampling (GWS)	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 213402602
Sampler: Dane Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: blank

Analysis Requested — Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Sediment	Tissue	Water	Other	Total # of Containers	*Short List VOCs 8260 including TBA (H)	*Short List SVOCs 8270	EDB 8011 (H)	dissolved Lead (lab filter)	custom TPH w/ Ranges	TPH-GRO 8260/moisture (H)	Metal 6010/Total Lead 6010B (N)	Sulfide, Chloride, Nitrate Nitrogen, Sulfate (O)	Volatile Headspace Hydrocarbon (H)	Total Alkalinity to 4.5/ Ammonia Nitrogen	Remarks
EB-20200901	9/1/20	1305	x						EB	8	X	X	X	X							
TB-20200901	8/30/20	—							TB	2	X		X								
S-447_20200901	9/1/20	1430	X					X		8	X	X	X	X							
S-223_20200901	9/1/20	1530	X					X		8	X	X	X	X							
S-448_20200902	9/2/20	0925	X					X		8	X	X	X	X							
S-449_20200902	9/2/20	1050	X					X		18	X	X	X	X	X	X	X	X	X	X	

For Lab Use Only
FSC: _____
SCR#: 262941

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks
* refer to Evergreen Petroleum Short List for list of analytes

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: andrew.klingbeil@stantec.com

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
Dane	9/2/20	1140	[signature]	9-2-20	1140
[signature]	9-2-20	1609			
			[signature]	9-2-20	16:15

EDD Required? Yes No
If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:
UPS _____ FedEx _____ Other _____

Temperature upon receipt 4.3 °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT https://www.eurofinsus.com/coc
The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0919

CJ CB

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-12761-1

Login Number: 12761
List Number: 1
Creator: Jeremiah, Cory T

List Source: Eurofins Lancaster Laboratories Env

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	True	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-12818-1
Client Project/Site: PES UDEX Release GW Sampling
Revision: 1

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Andrew Klingbeil

Authorized for release by:
3/11/2021 2:29:06 PM

Amek Carter, Project Manager
(717)556-7252
Loran.Carter@eurofinset.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
3/11/2021 2:29:06 PM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 6
Client Sample Results 7
Surrogate Summary 16
QC Sample Results 17
QC Association Summary 20
Lab Chronicle 21
Certification Summary 22
Method Summary 23
Sample Summary 24
Chain of Custody 25
Receipt Checklists 26

Definitions/Glossary

Client: Stantec Consulting Corp. Job ID: 410-12818-1
Project/Site: PES UDEX Release GW Sampling

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
^c	CCV Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-12818-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-12818-1

Revision
The report being provided is a revision of the original report sent on 9/9/2020. The report (revision 1) is being revised due to: Sample ID Correction - Correct sample ID for C-129D_20200902.

Receipt
The samples were received on 9/2/2020 4:15 PM; the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.5°C

Receipt Exceptions
The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): S-129D_20200902 (410-12818-4). The COC lists a collection time of 12:28. The container labels list a collection time of 10:28.

GC/MS VOA
Method 8260C: The continuing calibration verification (CCV) associated with batch 410-41794 recovered above the upper control limit for Acetone. Any detections are considered estimated.

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-41794 recovered outside acceptance criteria, low biased, for Chloromethane, Ethyl ether, trans-1,4-Dichloro-2-butene and Vinyl chloride. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Any detections are considered estimated

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: PES UDEX Release GW Sampling

Job ID: 410-12818-1

Client Sample ID: S-280D_20200901 — Lab Sample ID: 410-12818-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tertiary butyl ether	0.23	J	1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: S-284D_20200901 — Lab Sample ID: 410-12818-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.3	J ^c	20	0.70	ug/L	1		8260C	Total/NA

Client Sample ID: S-69D_20200901 — Lab Sample ID: 410-12818-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tertiary butyl ether	1.7		1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: C-129D_20200902 — Lab Sample ID: 410-12818-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	11	J ^c	20	0.70	ug/L	1		8260C	Total/NA
2-Butanone	0.93	J	10	0.30	ug/L	1		8260C	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 410-12818-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.3	J ^c	20	0.70	ug/L	1		8260C	Total/NA

Client Sample ID: Field Blank — Lab Sample ID: 410-12818-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.3	J ^c	20	0.70	ug/L	1		8260C	Total/NA

Client Sample ID: Equipment Blank — Lab Sample ID: 410-12818-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.0	J ^c	20	0.70	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Stantec Consulting Corp.
Project/Site: PES UDEX Release GW Sampling

Job ID: 410-12818-1

Client Sample ID: S-280D_20200901
Date Collected: 09/01/20 12:55
Date Received: 09/02/20 16:15

Lab Sample ID: 410-12818-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	ND		1.0	0.20	ug/L			09/09/20 07:04	1
trans-1,3-Dichloropropene	ND		1.0	0.20	ug/L			09/09/20 07:04	1
Ethylbenzene	ND		1.0	0.40	ug/L			09/09/20 07:04	1
Styrene	ND		5.0	0.20	ug/L			09/09/20 07:04	1
1,4-Dichlorobenzene	ND		5.0	0.20	ug/L			09/09/20 07:04	1
1,2-Dibromoethane	ND		1.0	0.20	ug/L			09/09/20 07:04	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			09/09/20 07:04	1
4-Methyl-2-pentanone	ND		10	0.50	ug/L			09/09/20 07:04	1
Methylcyclohexane	ND		5.0	0.50	ug/L			09/09/20 07:04	1
Toluene	ND		1.0	0.20	ug/L			09/09/20 07:04	1
Chlorobenzene	ND		1.0	0.20	ug/L			09/09/20 07:04	1
Cyclohexane	ND		5.0	1.0	ug/L			09/09/20 07:04	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/L			09/09/20 07:04	1
Dibromochloromethane	ND		1.0	0.20	ug/L			09/09/20 07:04	1
Xylenes, Total	ND		6.0	1.4	ug/L			09/09/20 07:04	1
Tetrachloroethene	ND		1.0	0.20	ug/L			09/09/20 07:04	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/09/20 07:04	1
trans-1,2-Dichloroethene	ND		5.0	0.20	ug/L			09/09/20 07:04	1
Methyl tertiary butyl ether	**0.23**	**J**	1.0	0.20	ug/L			09/09/20 07:04	1
1,3-Dichlorobenzene	ND		5.0	0.20	ug/L			09/09/20 07:04	1
Carbon tetrachloride	ND		1.0	0.20	ug/L			09/09/20 07:04	1
2-Hexanone	ND		10	0.30	ug/L			09/09/20 07:04	1
Acetone	ND	^c	20	0.70	ug/L			09/09/20 07:04	1
Chloroform	ND		1.0	0.20	ug/L			09/09/20 07:04	1
Benzene	ND		1.0	0.20	ug/L			09/09/20 07:04	1
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			09/09/20 07:04	1
Bromomethane	ND		1.0	0.30	ug/L			09/09/20 07:04	1
Chloromethane	ND	^c	1.0	0.20	ug/L			09/09/20 07:04	1
Chloroethane	ND		1.0	0.20	ug/L			09/09/20 07:04	1
Vinyl chloride	ND	^c	1.0	0.20	ug/L			09/09/20 07:04	1
Methylene Chloride	ND		1.0	0.30	ug/L			09/09/20 07:04	1
Carbon disulfide	ND		5.0	0.20	ug/L			09/09/20 07:04	1
Bromoform	ND		4.0	1.0	ug/L			09/09/20 07:04	1
Bromodichloromethane	ND		1.0	0.20	ug/L			09/09/20 07:04	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			09/09/20 07:04	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			09/09/20 07:04	1
Trichlorofluoromethane	ND		1.0	0.20	ug/L			09/09/20 07:04	1
Dichlorodifluoromethane	ND		1.0	0.20	ug/L			09/09/20 07:04	1
Freon 113	ND		10	0.20	ug/L			09/09/20 07:04	1
1,2-Dichloropropane	ND		1.0	0.20	ug/L			09/09/20 07:04	1
2-Butanone	ND		10	0.30	ug/L			09/09/20 07:04	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			09/09/20 07:04	1
Trichloroethene	ND		1.0	0.20	ug/L			09/09/20 07:04	1
Methyl acetate	ND		5.0	0.30	ug/L			09/09/20 07:04	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			09/09/20 07:04	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			09/09/20 07:04	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.30	ug/L			09/09/20 07:04	1
Isopropylbenzene	ND		5.0	0.20	ug/L			09/09/20 07:04	1

Client Sample ID: S-280D_20200901
Lab Sample ID: 410-12818-1

Date Collected: 09/01/20 12:55
Matrix: Water
Date Received: 09/02/20 16:15

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*		*09/09/20 07:04*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*09/09/20 07:04*	*1*
4-Bromofluorobenzene (Surr)	*89*		*80 - 120*		*09/09/20 07:04*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*09/09/20 07:04*	*1*

Client Sample ID: S-284D_20200901
Lab Sample ID: 410-12818-2

Date Collected: 09/01/20 14:40
Matrix: Water
Date Received: 09/02/20 16:15

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	ND		1.0	0.20	ug/L			09/09/20 07:26	1
trans-1,3-Dichloropropene	ND		1.0	0.20	ug/L			09/09/20 07:26	1
Ethylbenzene	ND		1.0	0.40	ug/L			09/09/20 07:26	1
Styrene	ND		5.0	0.20	ug/L			09/09/20 07:26	1
1,4-Dichlorobenzene	ND		5.0	0.20	ug/L			09/09/20 07:26	1
1,2-Dibromoethane	ND		1.0	0.20	ug/L			09/09/20 07:26	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			09/09/20 07:26	1
4-Methyl-2-pentanone	ND		10	0.50	ug/L			09/09/20 07:26	1
Methylcyclohexane	ND		5.0	0.50	ug/L			09/09/20 07:26	1
Toluene	ND		1.0	0.20	ug/L			09/09/20 07:26	1
Chlorobenzene	ND		1.0	0.20	ug/L			09/09/20 07:26	1
Cyclohexane	ND		5.0	1.0	ug/L			09/09/20 07:26	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/L			09/09/20 07:26	1
Dibromochloromethane	ND		1.0	0.20	ug/L			09/09/20 07:26	1
Xylenes, Total	ND		6.0	1.4	ug/L			09/09/20 07:26	1
Tetrachloroethene	ND		1.0	0.20	ug/L			09/09/20 07:26	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/09/20 07:26	1
trans-1,2-Dichloroethene	ND		5.0	0.20	ug/L			09/09/20 07:26	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			09/09/20 07:26	1
1,3-Dichlorobenzene	ND		5.0	0.20	ug/L			09/09/20 07:26	1
Carbon tetrachloride	ND		1.0	0.20	ug/L			09/09/20 07:26	1
2-Hexanone	ND		10	0.30	ug/L			09/09/20 07:26	1
Acetone	**2.3**	**J ^c**	20	0.70	ug/L			09/09/20 07:26	1
Chloroform	ND		1.0	0.20	ug/L			09/09/20 07:26	1
Benzene	ND		1.0	0.20	ug/L			09/09/20 07:26	1
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			09/09/20 07:26	1
Bromomethane	ND		1.0	0.30	ug/L			09/09/20 07:26	1
Chloromethane	ND	^c	1.0	0.20	ug/L			09/09/20 07:26	1
Chloroethane	ND		1.0	0.20	ug/L			09/09/20 07:26	1
Vinyl chloride	ND	^c	1.0	0.20	ug/L			09/09/20 07:26	1
Methylene Chloride	ND		1.0	0.30	ug/L			09/09/20 07:26	1
Carbon disulfide	ND		5.0	0.20	ug/L			09/09/20 07:26	1
Bromoform	ND		4.0	1.0	ug/L			09/09/20 07:26	1
Bromodichloromethane	ND		1.0	0.20	ug/L			09/09/20 07:26	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			09/09/20 07:26	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			09/09/20 07:26	1
Trichlorofluoromethane	ND		1.0	0.20	ug/L			09/09/20 07:26	1
Dichlorodifluoromethane	ND		1.0	0.20	ug/L			09/09/20 07:26	1
Freon 113	ND		10	0.20	ug/L			09/09/20 07:26	1

Client Sample ID: S-284D_20200901
Lab Sample ID: 410-12818-2
Date Collected: 09/01/20 14:40
Matrix: Water
Date Received: 09/02/20 16:15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		1.0	0.20	ug/L			09/09/20 07:26	1
2-Butanone	ND		10	0.30	ug/L			09/09/20 07:26	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			09/09/20 07:26	1
Trichloroethene	ND		1.0	0.20	ug/L			09/09/20 07:26	1
Methyl acetate	ND		5.0	0.30	ug/L			09/09/20 07:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			09/09/20 07:26	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			09/09/20 07:26	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.30	ug/L			09/09/20 07:26	1
Isopropylbenzene	ND		5.0	0.20	ug/L			09/09/20 07:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*80 - 120*		*09/09/20 07:26*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 120*		*09/09/20 07:26*	*1*
4-Bromofluorobenzene (Surr)	*89*		*80 - 120*		*09/09/20 07:26*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*09/09/20 07:26*	*1*

Client Sample ID: S-69D_20200901
Lab Sample ID: 410-12818-3
Date Collected: 09/01/20 16:05
Matrix: Water
Date Received: 09/02/20 16:15

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	ND		1.0	0.20	ug/L			09/09/20 07:48	1
trans-1,3-Dichloropropene	ND		1.0	0.20	ug/L			09/09/20 07:48	1
Ethylbenzene	ND		1.0	0.40	ug/L			09/09/20 07:48	1
Styrene	ND		5.0	0.20	ug/L			09/09/20 07:48	1
1,4-Dichlorobenzene	ND		5.0	0.20	ug/L			09/09/20 07:48	1
1,2-Dibromoethane	ND		1.0	0.20	ug/L			09/09/20 07:48	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			09/09/20 07:48	1
4-Methyl-2-pentanone	ND		10	0.50	ug/L			09/09/20 07:48	1
Methylcyclohexane	ND		5.0	0.50	ug/L			09/09/20 07:48	1
Toluene	ND		1.0	0.20	ug/L			09/09/20 07:48	1
Chlorobenzene	ND		1.0	0.20	ug/L			09/09/20 07:48	1
Cyclohexane	ND		5.0	1.0	ug/L			09/09/20 07:48	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/L			09/09/20 07:48	1
Dibromochloromethane	ND		1.0	0.20	ug/L			09/09/20 07:48	1
Xylenes, Total	ND		6.0	1.4	ug/L			09/09/20 07:48	1
Tetrachloroethene	ND		1.0	0.20	ug/L			09/09/20 07:48	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/09/20 07:48	1
trans-1,2-Dichloroethene	ND		5.0	0.20	ug/L			09/09/20 07:48	1
Methyl tertiary butyl ether	**1.7**		1.0	0.20	ug/L			09/09/20 07:48	1
1,3-Dichlorobenzene	ND		5.0	0.20	ug/L			09/09/20 07:48	1
Carbon tetrachloride	ND		1.0	0.20	ug/L			09/09/20 07:48	1
2-Hexanone	ND		10	0.30	ug/L			09/09/20 07:48	1
Acetone	ND	^c	20	0.70	ug/L			09/09/20 07:48	1
Chloroform	ND		1.0	0.20	ug/L			09/09/20 07:48	1
Benzene	ND		1.0	0.20	ug/L			09/09/20 07:48	1
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			09/09/20 07:48	1
Bromomethane	ND		1.0	0.30	ug/L			09/09/20 07:48	1
Chloromethane	ND	^c	1.0	0.20	ug/L			09/09/20 07:48	1

Client Sample ID: S-69D_20200901
Lab Sample ID: 410-12818-3
Date Collected: 09/01/20 16:05
Matrix: Water
Date Received: 09/02/20 16:15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	ND		1.0	0.20	ug/L			09/09/20 07:48	1
Vinyl chloride	ND	^c	1.0	0.20	ug/L			09/09/20 07:48	1
Methylene Chloride	ND		1.0	0.30	ug/L			09/09/20 07:48	1
Carbon disulfide	ND		5.0	0.20	ug/L			09/09/20 07:48	1
Bromoform	ND		4.0	1.0	ug/L			09/09/20 07:48	1
Bromodichloromethane	ND		1.0	0.20	ug/L			09/09/20 07:48	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			09/09/20 07:48	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			09/09/20 07:48	1
Trichlorofluoromethane	ND		1.0	0.20	ug/L			09/09/20 07:48	1
Dichlorodifluoromethane	ND		1.0	0.20	ug/L			09/09/20 07:48	1
Freon 113	ND		10	0.20	ug/L			09/09/20 07:48	1
1,2-Dichloropropane	ND		1.0	0.20	ug/L			09/09/20 07:48	1
2-Butanone	ND		10	0.30	ug/L			09/09/20 07:48	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			09/09/20 07:48	1
Trichloroethene	ND		1.0	0.20	ug/L			09/09/20 07:48	1
Methyl acetate	ND		5.0	0.30	ug/L			09/09/20 07:48	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			09/09/20 07:48	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			09/09/20 07:48	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.30	ug/L			09/09/20 07:48	1
Isopropylbenzene	ND		5.0	0.20	ug/L			09/09/20 07:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*80 - 120*		*09/09/20 07:48*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 120*		*09/09/20 07:48*	*1*
4-Bromofluorobenzene (Surr)	*88*		*80 - 120*		*09/09/20 07:48*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*09/09/20 07:48*	*1*

Client Sample ID: C-129D_20200902
Lab Sample ID: 410-12818-4
Date Collected: 09/02/20 12:28
Matrix: Water
Date Received: 09/02/20 16:15

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	ND		1.0	0.20	ug/L			09/09/20 08:10	1
trans-1,3-Dichloropropene	ND		1.0	0.20	ug/L			09/09/20 08:10	1
Ethylbenzene	ND		1.0	0.40	ug/L			09/09/20 08:10	1
Styrene	ND		5.0	0.20	ug/L			09/09/20 08:10	1
1,4-Dichlorobenzene	ND		5.0	0.20	ug/L			09/09/20 08:10	1
1,2-Dibromoethane	ND		1.0	0.20	ug/L			09/09/20 08:10	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			09/09/20 08:10	1
4-Methyl-2-pentanone	ND		10	0.50	ug/L			09/09/20 08:10	1
Methylcyclohexane	ND		5.0	0.50	ug/L			09/09/20 08:10	1
Toluene	ND		1.0	0.20	ug/L			09/09/20 08:10	1
Chlorobenzene	ND		1.0	0.20	ug/L			09/09/20 08:10	1
Cyclohexane	ND		5.0	1.0	ug/L			09/09/20 08:10	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/L			09/09/20 08:10	1
Dibromochloromethane	ND		1.0	0.20	ug/L			09/09/20 08:10	1
Xylenes, Total	ND		6.0	1.4	ug/L			09/09/20 08:10	1
Tetrachloroethene	ND		1.0	0.20	ug/L			09/09/20 08:10	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/09/20 08:10	1

Client Sample ID: C-129D_20200902
Lab Sample ID: 410-12818-4
Date Collected: 09/02/20 12:28
Matrix: Water
Date Received: 09/02/20 16:15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		5.0	0.20	ug/L			09/09/20 08:10	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			09/09/20 08:10	1
1,3-Dichlorobenzene	ND		5.0	0.20	ug/L			09/09/20 08:10	1
Carbon tetrachloride	ND		1.0	0.20	ug/L			09/09/20 08:10	1
2-Hexanone	ND		10	0.30	ug/L			09/09/20 08:10	1
Acetone	**11**	**J ^c**	20	0.70	ug/L			09/09/20 08:10	1
Chloroform	ND		1.0	0.20	ug/L			09/09/20 08:10	1
Benzene	ND		1.0	0.20	ug/L			09/09/20 08:10	1
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			09/09/20 08:10	1
Bromomethane	ND		1.0	0.30	ug/L			09/09/20 08:10	1
Chloromethane	ND	^c	1.0	0.20	ug/L			09/09/20 08:10	1
Chloroethane	ND		1.0	0.20	ug/L			09/09/20 08:10	1
Vinyl chloride	ND	^c	1.0	0.20	ug/L			09/09/20 08:10	1
Methylene Chloride	ND		1.0	0.30	ug/L			09/09/20 08:10	1
Carbon disulfide	ND		5.0	0.20	ug/L			09/09/20 08:10	1
Bromoform	ND		4.0	1.0	ug/L			09/09/20 08:10	1
Bromodichloromethane	ND		1.0	0.20	ug/L			09/09/20 08:10	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			09/09/20 08:10	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			09/09/20 08:10	1
Trichlorofluoromethane	ND		1.0	0.20	ug/L			09/09/20 08:10	1
Dichlorodifluoromethane	ND		1.0	0.20	ug/L			09/09/20 08:10	1
Freon 113	ND		10	0.20	ug/L			09/09/20 08:10	1
1,2-Dichloropropane	ND		1.0	0.20	ug/L			09/09/20 08:10	1
2-Butanone	**0.93**	**J**	10	0.30	ug/L			09/09/20 08:10	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			09/09/20 08:10	1
Trichloroethene	ND		1.0	0.20	ug/L			09/09/20 08:10	1
Methyl acetate	ND		5.0	0.30	ug/L			09/09/20 08:10	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			09/09/20 08:10	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			09/09/20 08:10	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.30	ug/L			09/09/20 08:10	1
Isopropylbenzene	ND		5.0	0.20	ug/L			09/09/20 08:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*		*09/09/20 08:10*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*09/09/20 08:10*	*1*
4-Bromofluorobenzene (Surr)	*89*		*80 - 120*		*09/09/20 08:10*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*09/09/20 08:10*	*1*

Client Sample ID: Trip Blank
Lab Sample ID: 410-12818-5
Date Collected: 09/01/20 00:00
Matrix: Water
Date Received: 09/02/20 16:15

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	ND		1.0	0.20	ug/L			09/09/20 02:17	1
trans-1,3-Dichloropropene	ND		1.0	0.20	ug/L			09/09/20 02:17	1
Ethylbenzene	ND		1.0	0.40	ug/L			09/09/20 02:17	1
Styrene	ND		5.0	0.20	ug/L			09/09/20 02:17	1
1,4-Dichlorobenzene	ND		5.0	0.20	ug/L			09/09/20 02:17	1
1,2-Dibromoethane	ND		1.0	0.20	ug/L			09/09/20 02:17	1

Client: Stantec Consulting Corp.
Project/Site: PES UDEX Release GW Sampling

Job ID: 410-12818-1

Client Sample ID: Trip Blank

Date Collected: 09/01/20 00:00
Date Received: 09/02/20 16:15

Lab Sample ID: 410-12818-5

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		1.0	0.30	ug/L			09/09/20 02:17	1
4-Methyl-2-pentanone	ND		10	0.50	ug/L			09/09/20 02:17	1
Methylcyclohexane	ND		5.0	0.50	ug/L			09/09/20 02:17	1
Toluene	ND		1.0	0.20	ug/L			09/09/20 02:17	1
Chlorobenzene	ND		1.0	0.20	ug/L			09/09/20 02:17	1
Cyclohexane	ND		5.0	1.0	ug/L			09/09/20 02:17	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/L			09/09/20 02:17	1
Dibromochloromethane	ND		1.0	0.20	ug/L			09/09/20 02:17	1
Xylenes, Total	ND		6.0	1.4	ug/L			09/09/20 02:17	1
Tetrachloroethene	ND		1.0	0.20	ug/L			09/09/20 02:17	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/09/20 02:17	1
trans-1,2-Dichloroethene	ND		5.0	0.20	ug/L			09/09/20 02:17	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			09/09/20 02:17	1
1,3-Dichlorobenzene	ND		5.0	0.20	ug/L			09/09/20 02:17	1
Carbon tetrachloride	ND		1.0	0.20	ug/L			09/09/20 02:17	1
2-Hexanone	ND		10	0.30	ug/L			09/09/20 02:17	1
Acetone	**1.3**	**J ^c**	20	0.70	ug/L			09/09/20 02:17	1
Chloroform	ND		1.0	0.20	ug/L			09/09/20 02:17	1
Benzene	ND		1.0	0.20	ug/L			09/09/20 02:17	1
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			09/09/20 02:17	1
Bromomethane	ND		1.0	0.30	ug/L			09/09/20 02:17	1
Chloromethane	ND	^c	1.0	0.20	ug/L			09/09/20 02:17	1
Chloroethane	ND		1.0	0.20	ug/L			09/09/20 02:17	1
Vinyl chloride	ND	^c	1.0	0.20	ug/L			09/09/20 02:17	1
Methylene Chloride	ND		1.0	0.30	ug/L			09/09/20 02:17	1
Carbon disulfide	ND		5.0	0.20	ug/L			09/09/20 02:17	1
Bromoform	ND		4.0	1.0	ug/L			09/09/20 02:17	1
Bromodichloromethane	ND		1.0	0.20	ug/L			09/09/20 02:17	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			09/09/20 02:17	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			09/09/20 02:17	1
Trichlorofluoromethane	ND		1.0	0.20	ug/L			09/09/20 02:17	1
Dichlorodifluoromethane	ND		1.0	0.20	ug/L			09/09/20 02:17	1
Freon 113	ND		10	0.20	ug/L			09/09/20 02:17	1
1,2-Dichloropropane	ND		1.0	0.20	ug/L			09/09/20 02:17	1
2-Butanone	ND		10	0.30	ug/L			09/09/20 02:17	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			09/09/20 02:17	1
Trichloroethene	ND		1.0	0.20	ug/L			09/09/20 02:17	1
Methyl acetate	ND		5.0	0.30	ug/L			09/09/20 02:17	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			09/09/20 02:17	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			09/09/20 02:17	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.30	ug/L			09/09/20 02:17	1
Isopropylbenzene	ND		5.0	0.20	ug/L			09/09/20 02:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*		*09/09/20 02:17*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*09/09/20 02:17*	*1*
4-Bromofluorobenzene (Surr)	*89*		*80 - 120*		*09/09/20 02:17*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*09/09/20 02:17*	*1*

Client: Stantec Consulting Corp.
Project/Site: PES UDEX Release GW Sampling

Job ID: 410-12818-1

Client Sample ID: Field Blank

Date Collected: 09/02/20 12:30
Date Received: 09/02/20 16:15

Lab Sample ID: 410-12818-6

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	ND		1.0	0.20	ug/L			09/09/20 02:40	1
trans-1,3-Dichloropropene	ND		1.0	0.20	ug/L			09/09/20 02:40	1
Ethylbenzene	ND		1.0	0.40	ug/L			09/09/20 02:40	1
Styrene	ND		5.0	0.20	ug/L			09/09/20 02:40	1
1,4-Dichlorobenzene	ND		5.0	0.20	ug/L			09/09/20 02:40	1
1,2-Dibromoethane	ND		1.0	0.20	ug/L			09/09/20 02:40	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			09/09/20 02:40	1
4-Methyl-2-pentanone	ND		10	0.50	ug/L			09/09/20 02:40	1
Methylcyclohexane	ND		5.0	0.50	ug/L			09/09/20 02:40	1
Toluene	ND		1.0	0.20	ug/L			09/09/20 02:40	1
Chlorobenzene	ND		1.0	0.20	ug/L			09/09/20 02:40	1
Cyclohexane	ND		5.0	1.0	ug/L			09/09/20 02:40	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/L			09/09/20 02:40	1
Dibromochloromethane	ND		1.0	0.20	ug/L			09/09/20 02:40	1
Xylenes, Total	ND		6.0	1.4	ug/L			09/09/20 02:40	1
Tetrachloroethene	ND		1.0	0.20	ug/L			09/09/20 02:40	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/09/20 02:40	1
trans-1,2-Dichloroethene	ND		5.0	0.20	ug/L			09/09/20 02:40	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			09/09/20 02:40	1
1,3-Dichlorobenzene	ND		5.0	0.20	ug/L			09/09/20 02:40	1
Carbon tetrachloride	ND		1.0	0.20	ug/L			09/09/20 02:40	1
2-Hexanone	ND		10	0.30	ug/L			09/09/20 02:40	1
Acetone	**1.3**	**J ^c**	20	0.70	ug/L			09/09/20 02:40	1
Chloroform	ND		1.0	0.20	ug/L			09/09/20 02:40	1
Benzene	ND		1.0	0.20	ug/L			09/09/20 02:40	1
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			09/09/20 02:40	1
Bromomethane	ND		1.0	0.30	ug/L			09/09/20 02:40	1
Chloromethane	ND	^c	1.0	0.20	ug/L			09/09/20 02:40	1
Chloroethane	ND		1.0	0.20	ug/L			09/09/20 02:40	1
Vinyl chloride	ND	^c	1.0	0.20	ug/L			09/09/20 02:40	1
Methylene Chloride	ND		1.0	0.30	ug/L			09/09/20 02:40	1
Carbon disulfide	ND		5.0	0.20	ug/L			09/09/20 02:40	1
Bromoform	ND		4.0	1.0	ug/L			09/09/20 02:40	1
Bromodichloromethane	ND		1.0	0.20	ug/L			09/09/20 02:40	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			09/09/20 02:40	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			09/09/20 02:40	1
Trichlorofluoromethane	ND		1.0	0.20	ug/L			09/09/20 02:40	1
Dichlorodifluoromethane	ND		1.0	0.20	ug/L			09/09/20 02:40	1
Freon 113	ND		10	0.20	ug/L			09/09/20 02:40	1
1,2-Dichloropropane	ND		1.0	0.20	ug/L			09/09/20 02:40	1
2-Butanone	ND		10	0.30	ug/L			09/09/20 02:40	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			09/09/20 02:40	1
Trichloroethene	ND		1.0	0.20	ug/L			09/09/20 02:40	1
Methyl acetate	ND		5.0	0.30	ug/L			09/09/20 02:40	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			09/09/20 02:40	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			09/09/20 02:40	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.30	ug/L			09/09/20 02:40	1
Isopropylbenzene	ND		5.0	0.20	ug/L			09/09/20 02:40	1

Client Sample ID: Field Blank
Lab Sample ID: 410-12818-6

Date Collected: 09/02/20 12:30
Matrix: Water
Date Received: 09/02/20 16:15

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*80 - 120*		*09/09/20 02:40*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*09/09/20 02:40*	*1*
4-Bromofluorobenzene (Surr)	*88*		*80 - 120*		*09/09/20 02:40*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*09/09/20 02:40*	*1*

Client Sample ID: Equipment Blank
Lab Sample ID: 410-12818-7

Date Collected: 09/02/20 12:35
Matrix: Water
Date Received: 09/02/20 16:15

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	ND		1.0	0.20	ug/L			09/09/20 03:02	1
trans-1,3-Dichloropropene	ND		1.0	0.20	ug/L			09/09/20 03:02	1
Ethylbenzene	ND		1.0	0.40	ug/L			09/09/20 03:02	1
Styrene	ND		5.0	0.20	ug/L			09/09/20 03:02	1
1,4-Dichlorobenzene	ND		5.0	0.20	ug/L			09/09/20 03:02	1
1,2-Dibromoethane	ND		1.0	0.20	ug/L			09/09/20 03:02	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			09/09/20 03:02	1
4-Methyl-2-pentanone	ND		10	0.50	ug/L			09/09/20 03:02	1
Methylcyclohexane	ND		5.0	0.50	ug/L			09/09/20 03:02	1
Toluene	ND		1.0	0.20	ug/L			09/09/20 03:02	1
Chlorobenzene	ND		1.0	0.20	ug/L			09/09/20 03:02	1
Cyclohexane	ND		5.0	1.0	ug/L			09/09/20 03:02	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/L			09/09/20 03:02	1
Dibromochloromethane	ND		1.0	0.20	ug/L			09/09/20 03:02	1
Xylenes, Total	ND		6.0	1.4	ug/L			09/09/20 03:02	1
Tetrachloroethene	ND		1.0	0.20	ug/L			09/09/20 03:02	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/09/20 03:02	1
trans-1,2-Dichloroethene	ND		5.0	0.20	ug/L			09/09/20 03:02	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			09/09/20 03:02	1
1,3-Dichlorobenzene	ND		5.0	0.20	ug/L			09/09/20 03:02	1
Carbon tetrachloride	ND		1.0	0.20	ug/L			09/09/20 03:02	1
2-Hexanone	ND		10	0.30	ug/L			09/09/20 03:02	1
Acetone	**1.0**	**J ^c**	20	0.70	ug/L			09/09/20 03:02	1
Chloroform	ND		1.0	0.20	ug/L			09/09/20 03:02	1
Benzene	ND		1.0	0.20	ug/L			09/09/20 03:02	1
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			09/09/20 03:02	1
Bromomethane	ND		1.0	0.30	ug/L			09/09/20 03:02	1
Chloromethane	ND	^c	1.0	0.20	ug/L			09/09/20 03:02	1
Chloroethane	ND		1.0	0.20	ug/L			09/09/20 03:02	1
Vinyl chloride	ND	^c	1.0	0.20	ug/L			09/09/20 03:02	1
Methylene Chloride	ND		1.0	0.30	ug/L			09/09/20 03:02	1
Carbon disulfide	ND		5.0	0.20	ug/L			09/09/20 03:02	1
Bromoform	ND		4.0	1.0	ug/L			09/09/20 03:02	1
Bromodichloromethane	ND		1.0	0.20	ug/L			09/09/20 03:02	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			09/09/20 03:02	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			09/09/20 03:02	1
Trichlorofluoromethane	ND		1.0	0.20	ug/L			09/09/20 03:02	1
Dichlorodifluoromethane	ND		1.0	0.20	ug/L			09/09/20 03:02	1
Freon 113	ND		10	0.20	ug/L			09/09/20 03:02	1

Client: Stantec Consulting Corp.
Job ID: 410-12818-1
Project/Site: PES UDEX Release GW Sampling

Client Sample ID: Equipment Blank
Lab Sample ID: 410-12818-7
Date Collected: 09/02/20 12:35
Matrix: Water
Date Received: 09/02/20 16:15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		1.0	0.20	ug/L			09/09/20 03:02	1
2-Butanone	ND		10	0.30	ug/L			09/09/20 03:02	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			09/09/20 03:02	1
Trichloroethene	ND		1.0	0.20	ug/L			09/09/20 03:02	1
Methyl acetate	ND		5.0	0.30	ug/L			09/09/20 03:02	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			09/09/20 03:02	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			09/09/20 03:02	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.30	ug/L			09/09/20 03:02	1
Isopropylbenzene	ND		5.0	0.20	ug/L			09/09/20 03:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*80 - 120*		*09/09/20 03:02*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*09/09/20 03:02*	*1*
4-Bromofluorobenzene (Surr)	*88*		*80 - 120*		*09/09/20 03:02*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*09/09/20 03:02*	*1*

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: PES UDEX Release GW Sampling

Job ID: 410-12818-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	DBFM	BFB	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-12818-1	S-280D_20200901	104	102	89	99
410-12818-2	S-284D_20200901	106	105	89	99
410-12818-3	S-69D_20200901	107	105	88	99
410-12818-4	C-129D_20200902	104	103	89	102
410-12818-5	Trip Blank	104	103	89	98
410-12818-6	Field Blank	105	103	88	98
410-12818-7	Equipment Blank	106	104	88	99
LCS 410-41794/4	Lab Control Sample	100	97	100	100
MB 410-41794/6	Method Blank	106	105	89	99

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
DBFM = Dibromofluoromethane (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)

Client: Stantec Consulting Corp.
Project/Site: PES UDEX Release GW Sampling

Job ID: 410-12818-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-41794/6
Matrix: Water
Analysis Batch: 41794

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	ND		1.0	0.20	ug/L			09/08/20 22:27	1
trans-1,3-Dichloropropene	ND		1.0	0.20	ug/L			09/08/20 22:27	1
Ethylbenzene	ND		1.0	0.40	ug/L			09/08/20 22:27	1
Styrene	ND		5.0	0.20	ug/L			09/08/20 22:27	1
1,4-Dichlorobenzene	ND		5.0	0.20	ug/L			09/08/20 22:27	1
1,2-Dibromoethane	ND		1.0	0.20	ug/L			09/08/20 22:27	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			09/08/20 22:27	1
4-Methyl-2-pentanone	ND		10	0.50	ug/L			09/08/20 22:27	1
Methylcyclohexane	ND		5.0	0.50	ug/L			09/08/20 22:27	1
Toluene	ND		1.0	0.20	ug/L			09/08/20 22:27	1
Chlorobenzene	ND		1.0	0.20	ug/L			09/08/20 22:27	1
Cyclohexane	ND		5.0	1.0	ug/L			09/08/20 22:27	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/L			09/08/20 22:27	1
Dibromochloromethane	ND		1.0	0.20	ug/L			09/08/20 22:27	1
Xylenes, Total	ND		6.0	1.4	ug/L			09/08/20 22:27	1
Tetrachloroethene	ND		1.0	0.20	ug/L			09/08/20 22:27	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/08/20 22:27	1
trans-1,2-Dichloroethene	ND		5.0	0.20	ug/L			09/08/20 22:27	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			09/08/20 22:27	1
1,3-Dichlorobenzene	ND		5.0	0.20	ug/L			09/08/20 22:27	1
Carbon tetrachloride	ND		1.0	0.20	ug/L			09/08/20 22:27	1
2-Hexanone	ND		10	0.30	ug/L			09/08/20 22:27	1
Acetone	ND		20	0.70	ug/L			09/08/20 22:27	1
Chloroform	ND		1.0	0.20	ug/L			09/08/20 22:27	1
Benzene	ND		1.0	0.20	ug/L			09/08/20 22:27	1
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			09/08/20 22:27	1
Bromomethane	ND		1.0	0.30	ug/L			09/08/20 22:27	1
Chloromethane	ND		1.0	0.20	ug/L			09/08/20 22:27	1
Chloroethane	ND		1.0	0.20	ug/L			09/08/20 22:27	1
Vinyl chloride	ND		1.0	0.20	ug/L			09/08/20 22:27	1
Methylene Chloride	ND		1.0	0.30	ug/L			09/08/20 22:27	1
Carbon disulfide	ND		5.0	0.20	ug/L			09/08/20 22:27	1
Bromoform	ND		4.0	1.0	ug/L			09/08/20 22:27	1
Bromodichloromethane	ND		1.0	0.20	ug/L			09/08/20 22:27	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			09/08/20 22:27	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			09/08/20 22:27	1
Trichlorofluoromethane	ND		1.0	0.20	ug/L			09/08/20 22:27	1
Dichlorodifluoromethane	ND		1.0	0.20	ug/L			09/08/20 22:27	1
Freon 113	ND		10	0.20	ug/L			09/08/20 22:27	1
1,2-Dichloropropane	ND		1.0	0.20	ug/L			09/08/20 22:27	1
2-Butanone	ND		10	0.30	ug/L			09/08/20 22:27	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			09/08/20 22:27	1
Trichloroethene	ND		1.0	0.20	ug/L			09/08/20 22:27	1
Methyl acetate	ND		5.0	0.30	ug/L			09/08/20 22:27	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			09/08/20 22:27	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			09/08/20 22:27	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.30	ug/L			09/08/20 22:27	1
Isopropylbenzene	ND		5.0	0.20	ug/L			09/08/20 22:27	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-41794/6
Matrix: Water
Analysis Batch: 41794

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*106*		*80 - 120*		*09/08/20 22:27*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 120*		*09/08/20 22:27*	*1*
4-Bromofluorobenzene (Surr)	*89*		*80 - 120*		*09/08/20 22:27*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*09/08/20 22:27*	*1*

Lab Sample ID: LCS 410-41794/4
Matrix: Water
Analysis Batch: 41794

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,3-Dichloropropene	20.0	19.6		ug/L		98	75 - 120
trans-1,3-Dichloropropene	20.0	19.4		ug/L		97	67 - 120
Ethylbenzene	20.0	20.9		ug/L		104	80 - 120
Styrene	20.0	20.7		ug/L		104	80 - 120
1,4-Dichlorobenzene	20.0	21.0		ug/L		105	80 - 120
1,2-Dibromoethane	20.0	21.0		ug/L		105	77 - 120
1,2-Dichloroethane	20.0	20.0		ug/L		100	73 - 124
4-Methyl-2-pentanone	100	92.3		ug/L		92	62 - 133
Methylcyclohexane	20.0	18.0		ug/L		90	67 - 121
Toluene	20.0	21.7		ug/L		109	80 - 120
Chlorobenzene	20.0	22.2		ug/L		111	80 - 120
Cyclohexane	20.0	19.2		ug/L		96	68 - 126
1,2,4-Trichlorobenzene	20.0	18.2		ug/L		91	63 - 120
Dibromochloromethane	20.0	22.4		ug/L		112	71 - 120
Xylenes, Total	60.0	62.4		ug/L		104	80 - 120
Tetrachloroethene	20.0	19.2		ug/L		96	80 - 120
cis-1,2-Dichloroethene	20.0	22.3		ug/L		112	80 - 125
trans-1,2-Dichloroethene	20.0	22.0		ug/L		110	80 - 126
Methyl tertiary butyl ether	20.0	17.1		ug/L		86	69 - 122
1,3-Dichlorobenzene	20.0	20.7		ug/L		104	80 - 120
Carbon tetrachloride	20.0	21.5		ug/L		107	64 - 134
2-Hexanone	100	94.6		ug/L		95	56 - 135
Acetone	150	192		ug/L		128	54 - 157
Chloroform	20.0	21.4		ug/L		107	80 - 120
Benzene	20.0	21.7		ug/L		108	80 - 120
1,1,1-Trichloroethane	20.0	20.8		ug/L		104	67 - 126
Bromomethane	20.0	16.6		ug/L		83	53 - 128
Chloromethane	20.0	14.4		ug/L		72	56 - 121
Chloroethane	20.0	16.4		ug/L		82	55 - 123
Vinyl chloride	20.0	15.1		ug/L		76	56 - 120
Methylene Chloride	20.0	22.0		ug/L		110	80 - 120
Carbon disulfide	20.0	23.5		ug/L		118	65 - 128
Bromoform	20.0	20.2		ug/L		101	51 - 120
Bromodichloromethane	20.0	21.2		ug/L		106	71 - 120
1,1-Dichloroethane	20.0	20.8		ug/L		104	80 - 120
1,1-Dichloroethene	20.0	22.7		ug/L		113	80 - 131
Trichlorofluoromethane	20.0	17.4		ug/L		87	55 - 135
Dichlorodifluoromethane	20.0	12.7		ug/L		63	41 - 127

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-41794/4
Matrix: Water
Analysis Batch: 41794

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Freon 113	20.0	21.3		ug/L		106	73 - 139
1,2-Dichloropropane	20.0	21.3		ug/L		106	80 - 120
2-Butanone	150	141		ug/L		94	59 - 135
1,1,2-Trichloroethane	20.0	22.9		ug/L		115	80 - 120
Trichloroethene	20.0	21.1		ug/L		105	80 - 120
Methyl acetate	20.0	17.7		ug/L		88	54 - 136
1,1,2,2-Tetrachloroethane	20.0	21.5		ug/L		107	72 - 120
1,2-Dichlorobenzene	20.0	21.2		ug/L		106	80 - 120
1,2-Dibromo-3-Chloropropane	20.0	19.4		ug/L		97	47 - 131
Isopropylbenzene	20.0	20.0		ug/L		100	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*97*		*80 - 120*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: PES UDEX Release GW Sampling

Job ID: 410-12818-1

GC/MS VOA

Analysis Batch: 41794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12818-1	S-280D_20200901	Total/NA	Water	8260C	
410-12818-2	S-284D_20200901	Total/NA	Water	8260C	
410-12818-3	S-69D_20200901	Total/NA	Water	8260C	
410-12818-4	C-129D_20200902	Total/NA	Water	8260C	
410-12818-5	Trip Blank	Total/NA	Water	8260C	
410-12818-6	Field Blank	Total/NA	Water	8260C	
410-12818-7	Equipment Blank	Total/NA	Water	8260C	
MB 410-41794/6	Method Blank	Total/NA	Water	8260C	
LCS 410-41794/4	Lab Control Sample	Total/NA	Water	8260C	

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: PES UDEX Release GW Sampling

Job ID: 410-12818-1

Client Sample ID: S-280D_20200901
Lab Sample ID: 410-12818-1
Date Collected: 09/01/20 12:55
Matrix: Water
Date Received: 09/02/20 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	41794	09/09/20 07:04	TQ4J	ELLE

Client Sample ID: S-284D_20200901
Lab Sample ID: 410-12818-2
Date Collected: 09/01/20 14:40
Matrix: Water
Date Received: 09/02/20 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	41794	09/09/20 07:26	TQ4J	ELLE

Client Sample ID: S-69D_20200901
Lab Sample ID: 410-12818-3
Date Collected: 09/01/20 16:05
Matrix: Water
Date Received: 09/02/20 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	41794	09/09/20 07:48	TQ4J	ELLE

Client Sample ID: C-129D_20200902
Lab Sample ID: 410-12818-4
Date Collected: 09/02/20 12:28
Matrix: Water
Date Received: 09/02/20 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	41794	09/09/20 08:10	TQ4J	ELLE

Client Sample ID: Trip Blank
Lab Sample ID: 410-12818-5
Date Collected: 09/01/20 00:00
Matrix: Water
Date Received: 09/02/20 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	41794	09/09/20 02:17	TQ4J	ELLE

Client Sample ID: Field Blank
Lab Sample ID: 410-12818-6
Date Collected: 09/02/20 12:30
Matrix: Water
Date Received: 09/02/20 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	41794	09/09/20 02:40	TQ4J	ELLE

Client Sample ID: Equipment Blank
Lab Sample ID: 410-12818-7
Date Collected: 09/02/20 12:35
Matrix: Water
Date Received: 09/02/20 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	41794	09/09/20 03:02	TQ4J	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp. Job ID: 410-12818-1
Project/Site: PES UDEX Release GW Sampling

Laboratory: Eurofins Lancaster Laboratories Env, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	11-02-20

Method Summary

Client: Stantec Consulting Corp.
Project/Site: PES UDEX Release GW Sampling

Job ID: 410-12818-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: PES UDEX Release GW Sampling

Job ID: 410-12818-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-12818-1	S-280D_20200901	Water	09/01/20 12:55	09/02/20 16:15	
410-12818-2	S-284D_20200901	Water	09/01/20 14:40	09/02/20 16:15	
410-12818-3	S-69D_20200901	Water	09/01/20 16:05	09/02/20 16:15	
410-12818-4	C-129D_20200902	Water	09/02/20 12:28	09/02/20 16:15	
410-12818-5	Trip Blank	Water	09/01/20 00:00	09/02/20 16:15	
410-12818-6	Field Blank	Water	09/02/20 12:30	09/02/20 16:15	
410-12818-7	Equipment Blank	Water	09/02/20 12:35	09/02/20 16:15	

Environmental Analysis Custody

eurofins | Lancaster Laboratories Environmental

Acct. # _____

410-12818 Chain of Custody

ıental use only

COC #612316

Client Information

Client: Stantec Consulting	Acct. #:
Project Name/#: PES UDEX	PWSID #:
Project Manager: Jennifer Mengcs	P.O. #: 2134803039
Sampler: Jim Craft	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

For Lab Use Only
FSC: _____
SCR#: 262940

Sample Identification	Collected Date	Collected Time	Grab	Composite	Matrix: Soil	Sediment	Tissue	Water	Potable	Ground	NPDES	Surface	Other:	Total # of Containers	Analysis Requested: VOC 8260 C	H
S-28D-20200901	9/1/2020	1255	X					X						3	X	
S-28D-20200901	9/1/2020	1440	X					X						3	X	
S-69D-20200901	9/1/2020	1605	X					X						3	X	
S-129D-20200902	9/2/2020	1228	X					X						3	X	
Trip Blank	9/1/20		X					X						1	X	
Field Blank	9/2/20	1230	X					X						3	X	
Equipment Blank	9/2/2020	1235	X					X						3	X	

Preservation Codes

H=HCl	T=Thiosulfate
N=HNO_3	B=NaOH
S=H_2SO_4	P=H_3PO_4
F=Field Filtered	O=Other

Remarks

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: jennifer.mengcs@stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP)	Type VI (Raw Data Only)	
Type III (Reduced non-CLP)	NJ DKQP	TX TRRP-13
NYSDEC Category A or B	MA MCP	CT RCP

Relinquished by	Date	Time	Received by	Date	Time
Jim Craft	9/2/2020		Jennell	9-2-20	11:40
Jennell	9/2/20	1609			

EDD Required? Yes (No)
If yes, format: Equis File

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other T

Temperature upon receipt 5.5 °C

Login Sample Receipt Checklist

Client: Stantec Consulting Corp. Job Number: 410-12818-1

Login Number: 12818 **List Source: Eurofins Lancaster Laboratories Env**
List Number: 1
Creator: Rivera, Tatiana

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	True	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-12999-1
Client Project/Site: Penrose Drilling Sampling

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Andrew Klingbeil

Authorized for release by:
10/2/2020 1:55:42 PM

Amek Carter, Project Manager
(717)556-7252
amekcarter@eurofinsus.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

* QC recoveries that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result.

* Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.

* Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
10/2/2020 1:55:42 PM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 6
Client Sample Results 8
Surrogate Summary 17
QC Sample Results 19
QC Association Summary 25
Lab Chronicle 28
Certification Summary 31
Method Summary 32
Sample Summary 33
Chain of Custody 34
Receipt Checklists 35

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: Penrose Drilling Sampling

Job ID: 410-12999-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
^c	CCV Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
XL	Surrogate recovery is below control limits

GC Semi VOA

Qualifier	Qualifier Description
XH	Surrogate recovery is above control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-12999-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-12999-1

Comments
No additional comments.

Receipt
The samples were received on 9/3/2020 4:43 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.9º C.

GC/MS VOA
Method 8260C/UST: The continuing calibration verification (CCV) associated with batch 410-42901 recovered outside acceptance criteria, low biased, for 1,2-Dichloroethane. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Non-detections of the affected analytes are reported. Any detections are considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: Surrogate recovery for the following samples were outside control limits: S-378_20200902 (410-12999-1) and S-375_20200902 (410-12999-2). Re-extraction and re-analysis was performed outside holding time and surrogate recovery was outside control limits.

Method 8270D: Surrogate recovery for the following samples were outside control limits: RW-703_20200903 (410-12999-5) and S-377_20200903 (410-12999-6). Re-extraction and/or re-analysis was performed and surrogate recovery was outside control limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method 8011: The 1,1,2,2-Tetrachloroethane (Surr) surrogate recovery for the following samples was outside acceptance limits (high biased) on the primary column due to matrix interference: S-375_20200902 (410-12999-2) and S-376_SL_20200903 (410-12999-7). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method Filtration: The following samples were not filtered within 15 minutes of sample collection as required by the method: S-378_20200902 (410-12999-1), S-375_20200902 (410-12999-2), S-38_20200902 (410-12999-3), RW-703_20200903 (410-12999-5), S-377_20200903 (410-12999-6) and S-376_SL_20200903 (410-12999-7). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Penrose Drilling Sampling

Job ID: 410-12999-1

Client Sample ID: S-378_20200902 — Lab Sample ID: 410-12999-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	510		50	10	ug/L	10		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	190		50	3.0	ug/L	10		8260C/UST	Total/NA
C4-C12-TPH-GRO	21000		500	290	ug/L	10		8260C/UST	Total/NA
Ethylbenzene	740		10	4.0	ug/L	10		8260C/UST	Total/NA
Isopropylbenzene	48	J	50	2.0	ug/L	10		8260C/UST	Total/NA
Methyl tertiary butyl ether	5.9	J	10	2.0	ug/L	10		8260C/UST	Total/NA
Toluene	320		10	2.0	ug/L	10		8260C/UST	Total/NA
Xylenes, Total	730		60	14	ug/L	10		8260C/UST	Total/NA
t-Butyl alcohol	170	J	500	120	ug/L	10		8260C/UST	Total/NA
Benzene - DL	3100		100	20	ug/L	100		8260C/UST	Total/NA
Naphthalene - DL	130		1.0	0.20	ug/L	2		8270D	Total/NA

Client Sample ID: S-375_20200902 — Lab Sample ID: 410-12999-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	630		25	5.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	210		25	1.5	ug/L	5		8260C/UST	Total/NA
Ethylbenzene	840		5.0	2.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	40		25	1.0	ug/L	5		8260C/UST	Total/NA
Methyl tertiary butyl ether	2.5	J	5.0	1.0	ug/L	5		8260C/UST	Total/NA
Toluene	420		5.0	1.0	ug/L	5		8260C/UST	Total/NA
t-Butyl alcohol	100	J	250	60	ug/L	5		8260C/UST	Total/NA
Benzene - DL	1600		50	10	ug/L	50		8260C/UST	Total/NA
C4-C12-TPH-GRO - DL	26000		2500	1500	ug/L	50		8260C/UST	Total/NA
Xylenes, Total - DL	3700		300	70	ug/L	50		8260C/UST	Total/NA
Fluorene	0.23	J	0.51	0.10	ug/L	1		8270D	Total/NA
Phenanthrene	0.12	J	0.51	0.10	ug/L	1		8270D	Total/NA
Naphthalene - DL	160		1.0	0.20	ug/L	2		8270D	Total/NA

Client Sample ID: S-38_20200902 — Lab Sample ID: 410-12999-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	13	J	25	5.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	8.0	J	25	1.5	ug/L	5		8260C/UST	Total/NA
Benzene	130		5.0	1.0	ug/L	5		8260C/UST	Total/NA
C4-C12-TPH-GRO	3000		250	150	ug/L	5		8260C/UST	Total/NA
Ethylbenzene	97		5.0	2.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	13	J	25	1.0	ug/L	5		8260C/UST	Total/NA
Toluene	170		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	110		30	7.0	ug/L	5		8260C/UST	Total/NA
Naphthalene	20		0.50	0.10	ug/L	1		8270D	Total/NA

Client Sample ID: TB_20200902 — Lab Sample ID: 410-12999-4

No Detections.

Client Sample ID: RW-703_20200903 — Lab Sample ID: 410-12999-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	670		100	20	ug/L	20		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	220		100	6.0	ug/L	20		8260C/UST	Total/NA
C4-C12-TPH-GRO	28000		1000	580	ug/L	20		8260C/UST	Total/NA
Ethylbenzene	430		20	8.0	ug/L	20		8260C/UST	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample ID: RW-703_20200903 (Continued)

Lab Sample ID: 410-12999-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Isopropylbenzene	14	J	100	4.0	ug/L	20		8260C/UST	Total/NA
Toluene	1900		20	4.0	ug/L	20		8260C/UST	Total/NA
Xylenes, Total	4100		120	28	ug/L	20		8260C/UST	Total/NA
Benzene - DL	6500		200	40	ug/L	200		8260C/UST	Total/NA
Anthracene	30		0.50	0.10	ug/L	1		8270D	Total/NA
Benzo[g,h,i]perylene	0.14	J	0.50	0.10	ug/L	1		8270D	Total/NA
Fluorene	60		0.50	0.10	ug/L	1		8270D	Total/NA
Pyrene	10		0.50	0.10	ug/L	1		8270D	Total/NA
Naphthalene - DL	230		2.5	0.50	ug/L	5		8270D	Total/NA
Phenanthrene - DL	160		2.5	0.50	ug/L	5		8270D	Total/NA

Client Sample ID: S-377_20200903

Lab Sample ID: 410-12999-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	93		25	5.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	110		25	1.5	ug/L	5		8260C/UST	Total/NA
C4-C12-TPH-GRO	11000		250	150	ug/L	5		8260C/UST	Total/NA
Ethylbenzene	100		5.0	2.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	36		25	1.0	ug/L	5		8260C/UST	Total/NA
Methyl tertiary butyl ether	13		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Toluene	260		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	600		30	7.0	ug/L	5		8260C/UST	Total/NA
t-Butyl alcohol	84	J	250	60	ug/L	5		8260C/UST	Total/NA
Benzene - DL	1000		50	10	ug/L	50		8260C/UST	Total/NA
Naphthalene	44		0.50	0.099	ug/L	1		8270D	Total/NA

Client Sample ID: S-376_SL_20200903

Lab Sample ID: 410-12999-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1100		50	10	ug/L	10		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	330		50	3.0	ug/L	10		8260C/UST	Total/NA
Benzene	130		10	2.0	ug/L	10		8260C/UST	Total/NA
C4-C12-TPH-GRO	32000		500	290	ug/L	10		8260C/UST	Total/NA
Ethylbenzene	930		10	4.0	ug/L	10		8260C/UST	Total/NA
Isopropylbenzene	18	J	50	2.0	ug/L	10		8260C/UST	Total/NA
Methyl tertiary butyl ether	2.4	J	10	2.0	ug/L	10		8260C/UST	Total/NA
Toluene - DL	3500		100	20	ug/L	100		8260C/UST	Total/NA
Xylenes, Total - DL	6400		600	140	ug/L	100		8260C/UST	Total/NA
Naphthalene	300		2.5	0.50	ug/L	5		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: S-378_20200902

Date Collected: 09/02/20 13:15
Date Received: 09/03/20 16:43

Lab Sample ID: 410-12999-1

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**510**		50	10	ug/L			09/11/20 16:54	10
1,2-Dichloroethane	ND	^c	10	3.0	ug/L			09/11/20 16:54	10
1,3,5-Trimethylbenzene	**190**		50	3.0	ug/L			09/11/20 16:54	10
C4-C12-TPH-GRO	**21000**		500	290	ug/L			09/11/20 16:54	10
Ethylbenzene	**740**		10	4.0	ug/L			09/11/20 16:54	10
Isopropylbenzene	**48**	**J**	50	2.0	ug/L			09/11/20 16:54	10
Methyl tertiary butyl ether	**5.9**	**J**	10	2.0	ug/L			09/11/20 16:54	10
Toluene	**320**		10	2.0	ug/L			09/11/20 16:54	10
Xylenes, Total	**730**		60	14	ug/L			09/11/20 16:54	10
t-Butyl alcohol	**170**	**J**	500	120	ug/L			09/11/20 16:54	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*		*09/11/20 16:54*	*10*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*09/11/20 16:54*	*10*
Dibromofluoromethane (Surr)	*91*		*80 - 120*		*09/11/20 16:54*	*10*
Toluene-d8 (Surr)	*105*		*80 - 120*		*09/11/20 16:54*	*10*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**3100**		100	20	ug/L			09/11/20 17:18	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*		*09/11/20 17:18*	*100*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*09/11/20 17:18*	*100*
Dibromofluoromethane (Surr)	*92*		*80 - 120*		*09/11/20 17:18*	*100*
Toluene-d8 (Surr)	*107*		*80 - 120*		*09/11/20 17:18*	*100*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.51	0.10	ug/L		09/09/20 09:30	09/14/20 11:01	1
Benzo[a]anthracene	ND		0.51	0.10	ug/L		09/09/20 09:30	09/14/20 11:01	1
Benzo[a]pyrene	ND		0.51	0.10	ug/L		09/09/20 09:30	09/14/20 11:01	1
Benzo[b]fluoranthene	ND		0.51	0.10	ug/L		09/09/20 09:30	09/14/20 11:01	1
Benzo[g,h,i]perylene	ND		0.51	0.10	ug/L		09/09/20 09:30	09/14/20 11:01	1
Chrysene	ND		0.51	0.10	ug/L		09/09/20 09:30	09/14/20 11:01	1
Fluorene	ND		0.51	0.10	ug/L		09/09/20 09:30	09/14/20 11:01	1
Phenanthrene	ND		0.51	0.10	ug/L		09/09/20 09:30	09/14/20 11:01	1
Pyrene	ND		0.51	0.10	ug/L		09/09/20 09:30	09/14/20 11:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*75*		*44 - 102*	*09/09/20 09:30*	*09/14/20 11:01*	*1*
Nitrobenzene-d5 (Surr)	*0.5*	*XL*	*38 - 113*	*09/09/20 09:30*	*09/14/20 11:01*	*1*
p-Terphenyl-d14 (Surr)	*49*		*34 - 128*	*09/09/20 09:30*	*09/14/20 11:01*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**130**		1.0	0.20	ug/L		09/09/20 09:30	09/15/20 00:54	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*77*		*44 - 102*	*09/09/20 09:30*	*09/15/20 00:54*	*2*
Nitrobenzene-d5 (Surr)	*1*	*XL*	*38 - 113*	*09/09/20 09:30*	*09/15/20 00:54*	*2*

Client Sample ID: S-378_20200902

Lab Sample ID: 410-12999-1
Matrix: Water
Date Collected: 09/02/20 13:15
Date Received: 09/03/20 16:43

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl-d14 (Surr)	*50*		*34 - 128*	*09/09/20 09:30*	*09/15/20 00:54*	*2*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0096	ug/L		09/14/20 22:57	09/16/20 10:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane (Surr) (1C)	*123*		*46 - 136*	*09/14/20 22:57*	*09/16/20 10:48*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*92*		*46 - 136*	*09/14/20 22:57*	*09/16/20 10:48*	*1*

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		09/08/20 20:48	09/11/20 19:06	1

Client Sample ID: S-375_20200902

Lab Sample ID: 410-12999-2
Matrix: Water
Date Collected: 09/02/20 14:30
Date Received: 09/03/20 16:43

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**630**		25	5.0	ug/L			09/11/20 17:42	5
1,2-Dichloroethane	ND	^c	5.0	1.5	ug/L			09/11/20 17:42	5
1,3,5-Trimethylbenzene	**210**		25	1.5	ug/L			09/11/20 17:42	5
Ethylbenzene	**840**		5.0	2.0	ug/L			09/11/20 17:42	5
Isopropylbenzene	**40**		25	1.0	ug/L			09/11/20 17:42	5
Methyl tertiary butyl ether	**2.5**	**J**	5.0	1.0	ug/L			09/11/20 17:42	5
Toluene	**420**		5.0	1.0	ug/L			09/11/20 17:42	5
t-Butyl alcohol	**100**	**J**	250	60	ug/L			09/11/20 17:42	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*87*		*80 - 120*		*09/11/20 17:42*	*5*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*09/11/20 17:42*	*5*
Dibromofluoromethane (Surr)	*93*		*80 - 120*		*09/11/20 17:42*	*5*
Toluene-d8 (Surr)	*107*		*80 - 120*		*09/11/20 17:42*	*5*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1600**		50	10	ug/L			09/11/20 18:06	50
C4-C12-TPH-GRO	**26000**		2500	1500	ug/L			09/11/20 18:06	50
Xylenes, Total	**3700**		300	70	ug/L			09/11/20 18:06	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*		*09/11/20 18:06*	*50*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*09/11/20 18:06*	*50*
Dibromofluoromethane (Surr)	*92*		*80 - 120*		*09/11/20 18:06*	*50*
Toluene-d8 (Surr)	*106*		*80 - 120*		*09/11/20 18:06*	*50*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.51	0.10	ug/L		09/09/20 09:30	09/14/20 11:30	1
Benzo[a]anthracene	ND		0.51	0.10	ug/L		09/09/20 09:30	09/14/20 11:30	1

Client Sample ID: S-375_20200902

Date Collected: 09/02/20 14:30
Date Received: 09/03/20 16:43

Lab Sample ID: 410-12999-2

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.51	0.10	ug/L		09/09/20 09:30	09/14/20 11:30	1
Benzo[b]fluoranthene	ND		0.51	0.10	ug/L		09/09/20 09:30	09/14/20 11:30	1
Benzo[g,h,i]perylene	ND		0.51	0.10	ug/L		09/09/20 09:30	09/14/20 11:30	1
Chrysene	ND		0.51	0.10	ug/L		09/09/20 09:30	09/14/20 11:30	1
Fluorene	**0.23**	**J**	0.51	0.10	ug/L		09/09/20 09:30	09/14/20 11:30	1
Phenanthrene	**0.12**	**J**	0.51	0.10	ug/L		09/09/20 09:30	09/14/20 11:30	1
Pyrene	ND		0.51	0.10	ug/L		09/09/20 09:30	09/14/20 11:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*74*		*44 - 102*	*09/09/20 09:30*	*09/14/20 11:30*	*1*
Nitrobenzene-d5 (Surr)	*2*	*XL*	*38 - 113*	*09/09/20 09:30*	*09/14/20 11:30*	*1*
p-Terphenyl-d14 (Surr)	*55*		*34 - 128*	*09/09/20 09:30*	*09/14/20 11:30*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**160**		1.0	0.20	ug/L		09/09/20 09:30	09/15/20 01:23	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*72*		*44 - 102*	*09/09/20 09:30*	*09/15/20 01:23*	*2*
Nitrobenzene-d5 (Surr)	*2*	*XL*	*38 - 113*	*09/09/20 09:30*	*09/15/20 01:23*	*2*
p-Terphenyl-d14 (Surr)	*55*		*34 - 128*	*09/09/20 09:30*	*09/15/20 01:23*	*2*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0097	ug/L		09/14/20 22:57	09/16/20 11:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*144*	*XH*	*46 - 136*	*09/14/20 22:57*	*09/16/20 11:05*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*103*		*46 - 136*	*09/14/20 22:57*	*09/16/20 11:05*	*1*

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		09/08/20 20:48	09/11/20 19:17	1

Client Sample ID: S-38_20200902

Date Collected: 09/02/20 15:45
Date Received: 09/03/20 16:43

Lab Sample ID: 410-12999-3

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**13**	**J**	25	5.0	ug/L			09/11/20 14:53	5
1,2-Dichloroethane	ND	^c	5.0	1.5	ug/L			09/11/20 14:53	5
1,3,5-Trimethylbenzene	**8.0**	**J**	25	1.5	ug/L			09/11/20 14:53	5
Benzene	**130**		5.0	1.0	ug/L			09/11/20 14:53	5
C4-C12-TPH-GRO	**3000**		250	150	ug/L			09/11/20 14:53	5
Ethylbenzene	**97**		5.0	2.0	ug/L			09/11/20 14:53	5
Isopropylbenzene	**13**	**J**	25	1.0	ug/L			09/11/20 14:53	5
Methyl tertiary butyl ether	ND		5.0	1.0	ug/L			09/11/20 14:53	5
Toluene	**170**		5.0	1.0	ug/L			09/11/20 14:53	5
Xylenes, Total	**110**		30	7.0	ug/L			09/11/20 14:53	5
t-Butyl alcohol	ND		250	60	ug/L			09/11/20 14:53	5

Client Sample ID: S-38_20200902

Date Collected: 09/02/20 15:45
Date Received: 09/03/20 16:43

Lab Sample ID: 410-12999-3
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*80 - 120*		*09/11/20 14:53*	*5*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*09/11/20 14:53*	*5*
Dibromofluoromethane (Surr)	*91*		*80 - 120*		*09/11/20 14:53*	*5*
Toluene-d8 (Surr)	*106*		*80 - 120*		*09/11/20 14:53*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		09/09/20 09:30	09/14/20 11:59	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		09/09/20 09:30	09/14/20 11:59	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		09/09/20 09:30	09/14/20 11:59	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		09/09/20 09:30	09/14/20 11:59	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		09/09/20 09:30	09/14/20 11:59	1
Chrysene	ND		0.50	0.10	ug/L		09/09/20 09:30	09/14/20 11:59	1
Fluorene	ND		0.50	0.10	ug/L		09/09/20 09:30	09/14/20 11:59	1
Naphthalene	**20**		0.50	0.10	ug/L		09/09/20 09:30	09/14/20 11:59	1
Phenanthrene	ND		0.50	0.10	ug/L		09/09/20 09:30	09/14/20 11:59	1
Pyrene	ND		0.50	0.10	ug/L		09/09/20 09:30	09/14/20 11:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*72*		*44 - 102*	*09/09/20 09:30*	*09/14/20 11:59*	*1*
Nitrobenzene-d5 (Surr)	*78*		*38 - 113*	*09/09/20 09:30*	*09/14/20 11:59*	*1*
p-Terphenyl-d14 (Surr)	*44*		*34 - 128*	*09/09/20 09:30*	*09/14/20 11:59*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0095	ug/L		09/14/20 22:57	09/16/20 11:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*118*		*46 - 136*	*09/14/20 22:57*	*09/16/20 11:22*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*89*		*46 - 136*	*09/14/20 22:57*	*09/16/20 11:22*	*1*

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		09/08/20 20:48	09/11/20 19:20	1

Client Sample ID: TB_20200902

Date Collected: 09/02/20 00:00
Date Received: 09/03/20 16:43

Lab Sample ID: 410-12999-4
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			09/11/20 14:05	1
1,2-Dichloroethane	ND	^c	1.0	0.30	ug/L			09/11/20 14:05	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			09/11/20 14:05	1
Benzene	ND		1.0	0.20	ug/L			09/11/20 14:05	1
C4-C12-TPH-GRO	ND		50	29	ug/L			09/11/20 14:05	1
Ethylbenzene	ND		1.0	0.40	ug/L			09/11/20 14:05	1
Isopropylbenzene	ND		5.0	0.20	ug/L			09/11/20 14:05	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			09/11/20 14:05	1
Toluene	ND		1.0	0.20	ug/L			09/11/20 14:05	1
Xylenes, Total	ND		6.0	1.4	ug/L			09/11/20 14:05	1
t-Butyl alcohol	ND		50	12	ug/L			09/11/20 14:05	1

Client Sample ID: TB_20200902

Lab Sample ID: 410-12999-4

Date Collected: 09/02/20 00:00

Matrix: Water

Date Received: 09/03/20 16:43

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*		*09/11/20 14:05*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*09/11/20 14:05*	*1*
Dibromofluoromethane (Surr)	*93*		*80 - 120*		*09/11/20 14:05*	*1*
Toluene-d8 (Surr)	*105*		*80 - 120*		*09/11/20 14:05*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0095	ug/L		09/14/20 22:57	09/16/20 11:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*100*		*46 - 136*	*09/14/20 22:57*	*09/16/20 11:39*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*92*		*46 - 136*	*09/14/20 22:57*	*09/16/20 11:39*	*1*

Client Sample ID: RW-703_20200903

Lab Sample ID: 410-12999-5

Date Collected: 09/03/20 09:30

Matrix: Water

Date Received: 09/03/20 16:43

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**670**		100	20	ug/L			09/11/20 18:30	20
1,2-Dichloroethane	ND	^c	20	6.0	ug/L			09/11/20 18:30	20
1,3,5-Trimethylbenzene	**220**		100	6.0	ug/L			09/11/20 18:30	20
C4-C12-TPH-GRO	**28000**		1000	580	ug/L			09/11/20 18:30	20
Ethylbenzene	**430**		20	8.0	ug/L			09/11/20 18:30	20
Isopropylbenzene	**14**	**J**	100	4.0	ug/L			09/11/20 18:30	20
Methyl tertiary butyl ether	ND		20	4.0	ug/L			09/11/20 18:30	20
Toluene	**1900**		20	4.0	ug/L			09/11/20 18:30	20
Xylenes, Total	**4100**		120	28	ug/L			09/11/20 18:30	20
t-Butyl alcohol	ND		1000	240	ug/L			09/11/20 18:30	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*80 - 120*		*09/11/20 18:30*	*20*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*09/11/20 18:30*	*20*
Dibromofluoromethane (Surr)	*92*		*80 - 120*		*09/11/20 18:30*	*20*
Toluene-d8 (Surr)	*105*		*80 - 120*		*09/11/20 18:30*	*20*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**6500**		200	40	ug/L			09/11/20 18:54	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*80 - 120*		*09/11/20 18:54*	*200*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*09/11/20 18:54*	*200*
Dibromofluoromethane (Surr)	*92*		*80 - 120*		*09/11/20 18:54*	*200*
Toluene-d8 (Surr)	*104*		*80 - 120*		*09/11/20 18:54*	*200*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**30**		0.50	0.10	ug/L		09/10/20 17:40	09/15/20 22:47	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		09/10/20 17:40	09/15/20 22:47	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		09/10/20 17:40	09/15/20 22:47	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		09/10/20 17:40	09/15/20 22:47	1

Client Sample ID: RW-703_20200903

Lab Sample ID: 410-12999-5
Matrix: Water
Date Collected: 09/03/20 09:30
Date Received: 09/03/20 16:43

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	**0.14**	**J**	0.50	0.10	ug/L		09/10/20 17:40	09/15/20 22:47	1
Chrysene	ND		0.50	0.10	ug/L		09/10/20 17:40	09/15/20 22:47	1
Fluorene	**60**		0.50	0.10	ug/L		09/10/20 17:40	09/15/20 22:47	1
Pyrene	**10**		0.50	0.10	ug/L		09/10/20 17:40	09/15/20 22:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*79*		*44 - 102*	*09/10/20 17:40*	*09/15/20 22:47*	*1*
Nitrobenzene-d5 (Surr)	*4*	*XL*	*38 - 113*	*09/10/20 17:40*	*09/15/20 22:47*	*1*
p-Terphenyl-d14 (Surr)	*74*		*34 - 128*	*09/10/20 17:40*	*09/15/20 22:47*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**230**		2.5	0.50	ug/L		09/10/20 17:40	09/16/20 01:35	5
Phenanthrene	**160**		2.5	0.50	ug/L		09/10/20 17:40	09/16/20 01:35	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*70*		*44 - 102*	*09/10/20 17:40*	*09/16/20 01:35*	*5*
Nitrobenzene-d5 (Surr)	*5*	*XL*	*38 - 113*	*09/10/20 17:40*	*09/16/20 01:35*	*5*
p-Terphenyl-d14 (Surr)	*69*		*34 - 128*	*09/10/20 17:40*	*09/16/20 01:35*	*5*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0096	ug/L		09/14/20 22:57	09/16/20 11:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*133*		*46 - 136*	*09/14/20 22:57*	*09/16/20 11:56*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*115*		*46 - 136*	*09/14/20 22:57*	*09/16/20 11:56*	*1*

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		09/08/20 20:48	09/11/20 19:09	1

Client Sample ID: S-377_20200903

Lab Sample ID: 410-12999-6
Matrix: Water
Date Collected: 09/03/20 11:15
Date Received: 09/03/20 16:43

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**93**		25	5.0	ug/L			09/11/20 19:18	5
1,2-Dichloroethane	ND	^c	5.0	1.5	ug/L			09/11/20 19:18	5
1,3,5-Trimethylbenzene	**110**		25	1.5	ug/L			09/11/20 19:18	5
C4-C12-TPH-GRO	**11000**		250	150	ug/L			09/11/20 19:18	5
Ethylbenzene	**100**		5.0	2.0	ug/L			09/11/20 19:18	5
Isopropylbenzene	**36**		25	1.0	ug/L			09/11/20 19:18	5
Methyl tertiary butyl ether	**13**		5.0	1.0	ug/L			09/11/20 19:18	5
Toluene	**260**		5.0	1.0	ug/L			09/11/20 19:18	5
Xylenes, Total	**600**		30	7.0	ug/L			09/11/20 19:18	5
t-Butyl alcohol	**84**	**J**	250	60	ug/L			09/11/20 19:18	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*		*09/11/20 19:18*	*5*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*09/11/20 19:18*	*5*

Client Sample ID: S-377_20200903

Lab Sample ID: 410-12999-6
Matrix: Water
Date Collected: 09/03/20 11:15
Date Received: 09/03/20 16:43

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*91*		*80 - 120*		*09/11/20 19:18*	*5*
Toluene-d8 (Surr)	*105*		*80 - 120*		*09/11/20 19:18*	*5*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1000**		50	10	ug/L			09/11/20 19:42	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*80 - 120*		*09/11/20 19:42*	*50*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*09/11/20 19:42*	*50*
Dibromofluoromethane (Surr)	*92*		*80 - 120*		*09/11/20 19:42*	*50*
Toluene-d8 (Surr)	*105*		*80 - 120*		*09/11/20 19:42*	*50*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.099	ug/L		09/10/20 17:40	09/16/20 02:05	1
Benzo[a]anthracene	ND		0.50	0.099	ug/L		09/10/20 17:40	09/16/20 02:05	1
Benzo[a]pyrene	ND		0.50	0.099	ug/L		09/10/20 17:40	09/16/20 02:05	1
Benzo[b]fluoranthene	ND		0.50	0.099	ug/L		09/10/20 17:40	09/16/20 02:05	1
Benzo[g,h,i]perylene	ND		0.50	0.099	ug/L		09/10/20 17:40	09/16/20 02:05	1
Chrysene	ND		0.50	0.099	ug/L		09/10/20 17:40	09/16/20 02:05	1
Fluorene	ND		0.50	0.099	ug/L		09/10/20 17:40	09/16/20 02:05	1
Naphthalene	**44**		0.50	0.099	ug/L		09/10/20 17:40	09/16/20 02:05	1
Phenanthrene	ND		0.50	0.099	ug/L		09/10/20 17:40	09/16/20 02:05	1
Pyrene	ND		0.50	0.099	ug/L		09/10/20 17:40	09/16/20 02:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*71*		*44 - 102*	*09/10/20 17:40*	*09/16/20 02:05*	*1*
Nitrobenzene-d5 (Surr)	*1*	*XL*	*38 - 113*	*09/10/20 17:40*	*09/16/20 02:05*	*1*
p-Terphenyl-d14 (Surr)	*59*		*34 - 128*	*09/10/20 17:40*	*09/16/20 02:05*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0096	ug/L		09/14/20 22:57	09/16/20 12:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*114*		*46 - 136*	*09/14/20 22:57*	*09/16/20 12:13*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*99*		*46 - 136*	*09/14/20 22:57*	*09/16/20 12:13*	*1*

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		09/08/20 20:48	09/11/20 19:15	1

Client Sample ID: S-376_SL_20200903

Lab Sample ID: 410-12999-7
Matrix: Water
Date Collected: 09/03/20 12:55
Date Received: 09/03/20 16:43

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**1100**		50	10	ug/L			09/11/20 20:06	10
1,2-Dichloroethane	ND	^c	10	3.0	ug/L			09/11/20 20:06	10

Client Sample ID: S-376_SL_20200903

Date Collected: 09/03/20 12:55
Date Received: 09/03/20 16:43

Lab Sample ID: 410-12999-7

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	**330**		50	3.0	ug/L			09/11/20 20:06	10
Benzene	**130**		10	2.0	ug/L			09/11/20 20:06	10
C4-C12-TPH-GRO	**32000**		500	290	ug/L			09/11/20 20:06	10
Ethylbenzene	**930**		10	4.0	ug/L			09/11/20 20:06	10
Isopropylbenzene	**18**	**J**	50	2.0	ug/L			09/11/20 20:06	10
Methyl tertiary butyl ether	**2.4**	**J**	10	2.0	ug/L			09/11/20 20:06	10
t-Butyl alcohol	ND		500	120	ug/L			09/11/20 20:06	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*		*09/11/20 20:06*	*10*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*09/11/20 20:06*	*10*
Dibromofluoromethane (Surr)	*92*		*80 - 120*		*09/11/20 20:06*	*10*
Toluene-d8 (Surr)	*105*		*80 - 120*		*09/11/20 20:06*	*10*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	**3500**		100	20	ug/L			09/11/20 20:30	100
Xylenes, Total	**6400**		600	140	ug/L			09/11/20 20:30	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*		*09/11/20 20:30*	*100*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*09/11/20 20:30*	*100*
Dibromofluoromethane (Surr)	*92*		*80 - 120*		*09/11/20 20:30*	*100*
Toluene-d8 (Surr)	*104*		*80 - 120*		*09/11/20 20:30*	*100*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		09/10/20 17:40	09/16/20 02:35	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		09/10/20 17:40	09/16/20 02:35	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		09/10/20 17:40	09/16/20 02:35	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		09/10/20 17:40	09/16/20 02:35	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		09/10/20 17:40	09/16/20 02:35	1
Chrysene	ND		0.50	0.10	ug/L		09/10/20 17:40	09/16/20 02:35	1
Fluorene	ND		0.50	0.10	ug/L		09/10/20 17:40	09/16/20 02:35	1
Naphthalene	**300**		2.5	0.50	ug/L		09/10/20 17:40	09/16/20 13:08	5
Phenanthrene	ND		0.50	0.10	ug/L		09/10/20 17:40	09/16/20 02:35	1
Pyrene	ND		0.50	0.10	ug/L		09/10/20 17:40	09/16/20 02:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*70*		*44 - 102*	*09/10/20 17:40*	*09/16/20 02:35*	*1*
2-Fluorobiphenyl (Surr)	*71*		*44 - 102*	*09/10/20 17:40*	*09/16/20 13:08*	*5*
Nitrobenzene-d5 (Surr)	*42*		*38 - 113*	*09/10/20 17:40*	*09/16/20 02:35*	*1*
Nitrobenzene-d5 (Surr)	*40*		*38 - 113*	*09/10/20 17:40*	*09/16/20 13:08*	*5*
p-Terphenyl-d14 (Surr)	*75*		*34 - 128*	*09/10/20 17:40*	*09/16/20 02:35*	*1*
p-Terphenyl-d14 (Surr)	*74*		*34 - 128*	*09/10/20 17:40*	*09/16/20 13:08*	*5*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0096	ug/L		09/14/20 22:57	09/16/20 12:30	1

Client: Stantec Consulting Corp.
Project/Site: Penrose Drilling Sampling

Job ID: 410-12999-1

Client Sample ID: S-376_SL_20200903
Date Collected: 09/03/20 12:55
Date Received: 09/03/20 16:43

Lab Sample ID: 410-12999-7
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*181*	*XH*	*46 - 136*	*09/14/20 22:57*	*09/16/20 12:30*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*107*		*46 - 136*	*09/14/20 22:57*	*09/16/20 12:30*	*1*

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		09/08/20 20:48	09/11/20 18:53	1

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Penrose Drilling Sampling

Job ID: 410-12999-1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-12999-1	S-378_20200902	88	98	91	105
410-12999-1 - DL	S-378_20200902	88	100	92	107
410-12999-2	S-375_20200902	87	99	93	107
410-12999-2 - DL	S-375_20200902	90	96	92	106
410-12999-3	S-38_20200902	87	97	91	106
410-12999-4	TB_20200902	90	96	93	105
410-12999-5	RW-703_20200903	86	98	92	105
410-12999-5 - DL	RW-703_20200903	86	97	92	104
410-12999-6	S-377_20200903	88	100	91	105
410-12999-6 - DL	S-377_20200903	86	97	92	105
410-12999-7	S-376_SL_20200903	88	99	92	105
410-12999-7 - DL	S-376_SL_20200903	90	96	92	104
LCS 410-42901/5	Lab Control Sample	90	95	92	105
LCS 410-42901/7	Lab Control Sample	88	98	93	105
LCSD 410-42901/8	Lab Control Sample Dup	88	96	92	105
MB 410-42901/9	Method Blank	86	96	91	103

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID				
LCSD 410-42901/6	Lab Control Sample Dup				

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(44-102)	(38-113)	(34-128)
410-12999-1	S-378_20200902	75	0.5 XL	49
410-12999-1 - DL	S-378_20200902	77	1 XL	50
410-12999-2	S-375_20200902	74	2 XL	55
410-12999-2 - DL	S-375_20200902	72	2 XL	55
410-12999-3	S-38_20200902	72	78	44
410-12999-5	RW-703_20200903	79	4 XL	74
410-12999-5 - DL	RW-703_20200903	70	5 XL	69
410-12999-6	S-377_20200903	71	1 XL	59

Surrogate Summary

Client: Stantec Consulting Corp.
Job ID: 410-12999-1
Project/Site: Penrose Drilling Sampling

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(44-102)	(38-113)	(34-128)
410-12999-7	S-376_SL_20200903	70	42	75
410-12999-7	S-376_SL_20200903	71	40	74
LCS 410-41935/2-A	Lab Control Sample	82	85	81
LCS 410-42632/2-A	Lab Control Sample	72	78	94
LCSD 410-42632/3-A	Lab Control Sample Dup	73	76	84
MB 410-41935/1-A	Method Blank	84	88	59
MB 410-42632/1-A	Method Blank	87	93	105

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1122TCA1	1122TCA2
Lab Sample ID	Client Sample ID	(46-136)	(46-136)
410-12999-1	S-378_20200902	123	92
410-12999-2	S-375_20200902	144 XH	103
410-12999-3	S-38_20200902	118	89
410-12999-4	TB_20200902	100	92
410-12999-5	RW-703_20200903	133	115
410-12999-6	S-377_20200903	114	99
410-12999-7	S-376_SL_20200903	181 XH	107
LCS 410-43760/2-A	Lab Control Sample	113	98
LCSD 410-43760/3-A	Lab Control Sample Dup	99	89
MB 410-43760/1-A	Method Blank	103	92

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-42901/9
Matrix: Water
Analysis Batch: 42901

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			09/11/20 12:29	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			09/11/20 12:29	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			09/11/20 12:29	1
Benzene	ND		1.0	0.20	ug/L			09/11/20 12:29	1
C4-C12-TPH-GRO	ND		50	29	ug/L			09/11/20 12:29	1
Ethylbenzene	ND		1.0	0.40	ug/L			09/11/20 12:29	1
Isopropylbenzene	ND		5.0	0.20	ug/L			09/11/20 12:29	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			09/11/20 12:29	1
Toluene	ND		1.0	0.20	ug/L			09/11/20 12:29	1
Xylenes, Total	ND		6.0	1.4	ug/L			09/11/20 12:29	1
t-Butyl alcohol	ND		50	12	ug/L			09/11/20 12:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*80 - 120*		*09/11/20 12:29*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*09/11/20 12:29*	*1*
Dibromofluoromethane (Surr)	*91*		*80 - 120*		*09/11/20 12:29*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*09/11/20 12:29*	*1*

Lab Sample ID: LCS 410-42901/5
Matrix: Water
Analysis Batch: 42901

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	20.0	21.0		ug/L		105	75 - 120
1,2-Dichloroethane	20.0	15.8		ug/L		79	73 - 124
1,3,5-Trimethylbenzene	20.0	20.8		ug/L		104	75 - 120
Benzene	20.0	18.6		ug/L		93	80 - 120
Ethylbenzene	20.0	21.4		ug/L		107	80 - 120
Isopropylbenzene	20.0	19.9		ug/L		100	80 - 120
Methyl tertiary butyl ether	20.0	17.5		ug/L		88	69 - 122
Naphthalene	20.0	18.1		ug/L		91	53 - 124
Toluene	20.0	20.9		ug/L		105	80 - 120
Xylenes, Total	60.0	60.2		ug/L		100	80 - 120
t-Butyl alcohol	200	204		ug/L		102	60 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*
Dibromofluoromethane (Surr)	*92*		*80 - 120*
Toluene-d8 (Surr)	*105*		*80 - 120*

Lab Sample ID: LCS 410-42901/7
Matrix: Water
Analysis Batch: 42901

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C4-C12-TPH-GRO	1000	897		ug/L		90	67 - 120

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-42901/7
Matrix: Water
Analysis Batch: 42901

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*93*		*80 - 120*
Toluene-d8 (Surr)	*105*		*80 - 120*

Lab Sample ID: LCSD 410-42901/6
Matrix: Water
Analysis Batch: 42901

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene			20.0	18.8		ug/L					
1,2-Dichloroethane			20.0	14.5		ug/L					
1,3,5-Trimethylbenzene			20.0	18.8		ug/L					
Benzene			20.0	16.8		ug/L					
Ethylbenzene			20.0	19.5		ug/L					
Isopropylbenzene			20.0	17.9		ug/L					
Methyl tertiary butyl ether			20.0	15.9		ug/L					
Naphthalene			20.0	16.8		ug/L					
Toluene			20.0	19.4		ug/L					
Xylenes, Total			60.0	55.6		ug/L					
t-Butyl alcohol			200	189		ug/L					

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)			
4-Bromofluorobenzene (Surr)			
Dibromofluoromethane (Surr)			
Toluene-d8 (Surr)			

Lab Sample ID: LCSD 410-42901/8
Matrix: Water
Analysis Batch: 42901

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C4-C12-TPH-GRO			1000	934		ug/L		93	67 - 120	4	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*92*		*80 - 120*
Toluene-d8 (Surr)	*105*		*80 - 120*

Client: Stantec Consulting Corp.
Project/Site: Penrose Drilling Sampling

Job ID: 410-12999-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-41935/1-A
Matrix: Water
Analysis Batch: 43443

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 41935

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		09/09/20 09:30	09/14/20 10:03	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		09/09/20 09:30	09/14/20 10:03	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		09/09/20 09:30	09/14/20 10:03	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		09/09/20 09:30	09/14/20 10:03	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		09/09/20 09:30	09/14/20 10:03	1
Chrysene	ND		0.50	0.10	ug/L		09/09/20 09:30	09/14/20 10:03	1
Fluorene	ND		0.50	0.10	ug/L		09/09/20 09:30	09/14/20 10:03	1
Naphthalene	ND		0.50	0.10	ug/L		09/09/20 09:30	09/14/20 10:03	1
Phenanthrene	ND		0.50	0.10	ug/L		09/09/20 09:30	09/14/20 10:03	1
Pyrene	ND		0.50	0.10	ug/L		09/09/20 09:30	09/14/20 10:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*84*		*44 - 102*	*09/09/20 09:30*	*09/14/20 10:03*	*1*
Nitrobenzene-d5 (Surr)	*88*		*38 - 113*	*09/09/20 09:30*	*09/14/20 10:03*	*1*
p-Terphenyl-d14 (Surr)	*59*		*34 - 128*	*09/09/20 09:30*	*09/14/20 10:03*	*1*

Lab Sample ID: LCS 410-41935/2-A
Matrix: Water
Analysis Batch: 43443

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 41935

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.1	45.3		ug/L		90	67 - 116
Benzo[a]anthracene	50.0	48.0		ug/L		96	68 - 123
Benzo[a]pyrene	50.2	44.9		ug/L		90	71 - 117
Benzo[b]fluoranthene	50.1	45.5		ug/L		91	69 - 121
Benzo[g,h,i]perylene	50.1	44.8		ug/L		89	60 - 119
Chrysene	50.0	44.9		ug/L		90	65 - 121
Fluorene	50.1	45.0		ug/L		90	56 - 115
Naphthalene	50.4	40.3		ug/L		80	51 - 102
Phenanthrene	50.2	46.2		ug/L		92	65 - 113
Pyrene	50.4	44.6		ug/L		88	65 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*82*		*44 - 102*
Nitrobenzene-d5 (Surr)	*85*		*38 - 113*
p-Terphenyl-d14 (Surr)	*81*		*34 - 128*

Lab Sample ID: MB 410-42632/1-A
Matrix: Water
Analysis Batch: 43893

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 42632

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		09/10/20 17:40	09/15/20 13:45	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		09/10/20 17:40	09/15/20 13:45	1
Benzo[a]pyrene	ND		0.50	0.10	ug/L		09/10/20 17:40	09/15/20 13:45	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		09/10/20 17:40	09/15/20 13:45	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		09/10/20 17:40	09/15/20 13:45	1
Chrysene	ND		0.50	0.10	ug/L		09/10/20 17:40	09/15/20 13:45	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-42632/1-A
Matrix: Water
Analysis Batch: 43893

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 42632

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	ND		0.50	0.10	ug/L		09/10/20 17:40	09/15/20 13:45	1
Naphthalene	ND		0.50	0.10	ug/L		09/10/20 17:40	09/15/20 13:45	1
Phenanthrene	ND		0.50	0.10	ug/L		09/10/20 17:40	09/15/20 13:45	1
Pyrene	ND		0.50	0.10	ug/L		09/10/20 17:40	09/15/20 13:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*87*		*44 - 102*	*09/10/20 17:40*	*09/15/20 13:45*	*1*
Nitrobenzene-d5 (Surr)	*93*		*38 - 113*	*09/10/20 17:40*	*09/15/20 13:45*	*1*
p-Terphenyl-d14 (Surr)	*105*		*34 - 128*	*09/10/20 17:40*	*09/15/20 13:45*	*1*

Lab Sample ID: LCS 410-42632/2-A
Matrix: Water
Analysis Batch: 43893

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 42632

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.1	43.8		ug/L		87	67 - 116
Benzo[a]anthracene	50.0	51.4		ug/L		103	68 - 123
Benzo[a]pyrene	50.2	46.9		ug/L		94	71 - 117
Benzo[b]fluoranthene	50.1	49.7		ug/L		99	69 - 121
Benzo[g,h,i]perylene	50.1	46.3		ug/L		92	60 - 119
Chrysene	50.0	48.8		ug/L		98	65 - 121
Fluorene	50.1	43.5		ug/L		87	56 - 115
Naphthalene	50.4	38.5		ug/L		76	51 - 102
Phenanthrene	50.2	45.0		ug/L		90	65 - 113
Pyrene	50.4	48.6		ug/L		96	65 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*72*		*44 - 102*
Nitrobenzene-d5 (Surr)	*78*		*38 - 113*
p-Terphenyl-d14 (Surr)	*94*		*34 - 128*

Lab Sample ID: LCSD 410-42632/3-A
Matrix: Water
Analysis Batch: 43893

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 42632

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Anthracene	50.1	41.5		ug/L		83	67 - 116	5	30
Benzo[a]anthracene	50.0	47.0		ug/L		94	68 - 123	9	30
Benzo[a]pyrene	50.2	47.1		ug/L		94	71 - 117	0	30
Benzo[b]fluoranthene	50.1	44.5		ug/L		89	69 - 121	11	30
Benzo[g,h,i]perylene	50.1	48.2		ug/L		96	60 - 119	4	30
Chrysene	50.0	42.5		ug/L		85	65 - 121	14	30
Fluorene	50.1	41.0		ug/L		82	56 - 115	6	30
Naphthalene	50.4	36.7		ug/L		73	51 - 102	5	30
Phenanthrene	50.2	44.6		ug/L		89	65 - 113	1	30
Pyrene	50.4	44.9		ug/L		89	65 - 115	8	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-42632/3-A
Matrix: Water
Analysis Batch: 43893

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 42632

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*73*		*44 - 102*
Nitrobenzene-d5 (Surr)	*76*		*38 - 113*
p-Terphenyl-d14 (Surr)	*84*		*34 - 128*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-43760/1-A
Matrix: Water
Analysis Batch: 44181

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 43760

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		09/14/20 22:57	09/15/20 23:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*103*		*46 - 136*	*09/14/20 22:57*	*09/15/20 23:46*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*92*		*46 - 136*	*09/14/20 22:57*	*09/15/20 23:46*	*1*

Lab Sample ID: LCS 410-43760/2-A
Matrix: Water
Analysis Batch: 44181

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 43760

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.164		ug/L		128	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*113*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*98*		*46 - 136*

Lab Sample ID: LCSD 410-43760/3-A
Matrix: Water
Analysis Batch: 44181

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 43760

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.156		ug/L		122	60 - 140	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*99*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*89*		*46 - 136*

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 410-41829/1-A
Matrix: Water
Analysis Batch: 43492

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 41829

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		09/08/20 20:48	09/11/20 18:49	1

Lab Sample ID: LCS 410-41829/2-A
Matrix: Water
Analysis Batch: 43492

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 41829

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			30.0	30.8		ug/L		103	90 - 115		

Lab Sample ID: 410-12999-7 MS
Matrix: Water
Analysis Batch: 43492

Client Sample ID: S-376_SL_20200903
Prep Type: Dissolved
Prep Batch: 41829

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead	ND		30.0	29.9		ug/L		100	75 - 125		

Lab Sample ID: 410-12999-7 MSD
Matrix: Water
Analysis Batch: 43492

Client Sample ID: S-376_SL_20200903
Prep Type: Dissolved
Prep Batch: 41829

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	ND		30.0	30.2		ug/L		101	75 - 125	1	20

Lab Sample ID: 410-12999-7 DU
Matrix: Water
Analysis Batch: 43492

Client Sample ID: S-376_SL_20200903
Prep Type: Dissolved
Prep Batch: 41829

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Lead	ND			ND		ug/L				NC	20

GC/MS VOA

Analysis Batch: 42901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12999-1	S-378_20200902	Total/NA	Water	8260C/UST	
410-12999-1 - DL	S-378_20200902	Total/NA	Water	8260C/UST	
410-12999-2	S-375_20200902	Total/NA	Water	8260C/UST	
410-12999-2 - DL	S-375_20200902	Total/NA	Water	8260C/UST	
410-12999-3	S-38_20200902	Total/NA	Water	8260C/UST	
410-12999-4	TB_20200902	Total/NA	Water	8260C/UST	
410-12999-5	RW-703_20200903	Total/NA	Water	8260C/UST	
410-12999-5 - DL	RW-703_20200903	Total/NA	Water	8260C/UST	
410-12999-6	S-377_20200903	Total/NA	Water	8260C/UST	
410-12999-6 - DL	S-377_20200903	Total/NA	Water	8260C/UST	
410-12999-7	S-376_SL_20200903	Total/NA	Water	8260C/UST	
410-12999-7 - DL	S-376_SL_20200903	Total/NA	Water	8260C/UST	
MB 410-42901/9	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-42901/5	Lab Control Sample	Total/NA	Water	8260C/UST	
LCS 410-42901/7	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-42901/6	Lab Control Sample Dup	Total/NA	Water	8260C/UST	
LCSD 410-42901/8	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

GC/MS Semi VOA

Prep Batch: 41935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12999-1 - DL	S-378_20200902	Total/NA	Water	3510C	
410-12999-1	S-378_20200902	Total/NA	Water	3510C	
410-12999-2	S-375_20200902	Total/NA	Water	3510C	
410-12999-2 - DL	S-375_20200902	Total/NA	Water	3510C	
410-12999-3	S-38_20200902	Total/NA	Water	3510C	
MB 410-41935/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-41935/2-A	Lab Control Sample	Total/NA	Water	3510C	

Prep Batch: 42632

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12999-5 - DL	RW-703_20200903	Total/NA	Water	3510C	
410-12999-5	RW-703_20200903	Total/NA	Water	3510C	
410-12999-6	S-377_20200903	Total/NA	Water	3510C	
410-12999-7	S-376_SL_20200903	Total/NA	Water	3510C	
MB 410-42632/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-42632/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-42632/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 43443

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12999-1	S-378_20200902	Total/NA	Water	8270D	41935
410-12999-2	S-375_20200902	Total/NA	Water	8270D	41935
410-12999-3	S-38_20200902	Total/NA	Water	8270D	41935
MB 410-41935/1-A	Method Blank	Total/NA	Water	8270D	41935
LCS 410-41935/2-A	Lab Control Sample	Total/NA	Water	8270D	41935

Analysis Batch: 43721

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12999-1 - DL	S-378_20200902	Total/NA	Water	8270D	41935

GC/MS Semi VOA (Continued)

Analysis Batch: 43721 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12999-2 - DL	S-375_20200902	Total/NA	Water	8270D	41935

Analysis Batch: 43893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12999-5	RW-703_20200903	Total/NA	Water	8270D	42632
MB 410-42632/1-A	Method Blank	Total/NA	Water	8270D	42632
LCS 410-42632/2-A	Lab Control Sample	Total/NA	Water	8270D	42632
LCSD 410-42632/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	42632

Analysis Batch: 44224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12999-5 - DL	RW-703_20200903	Total/NA	Water	8270D	42632
410-12999-6	S-377_20200903	Total/NA	Water	8270D	42632
410-12999-7	S-376_SL_20200903	Total/NA	Water	8270D	42632

Analysis Batch: 44385

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12999-7	S-376_SL_20200903	Total/NA	Water	8270D	42632

GC Semi VOA

Prep Batch: 43760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12999-1	S-378_20200902	Total/NA	Water	8011	
410-12999-2	S-375_20200902	Total/NA	Water	8011	
410-12999-3	S-38_20200902	Total/NA	Water	8011	
410-12999-4	TB_20200902	Total/NA	Water	8011	
410-12999-5	RW-703_20200903	Total/NA	Water	8011	
410-12999-6	S-377_20200903	Total/NA	Water	8011	
410-12999-7	S-376_SL_20200903	Total/NA	Water	8011	
MB 410-43760/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-43760/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-43760/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 44181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12999-1	S-378_20200902	Total/NA	Water	8011	43760
410-12999-2	S-375_20200902	Total/NA	Water	8011	43760
410-12999-3	S-38_20200902	Total/NA	Water	8011	43760
410-12999-4	TB_20200902	Total/NA	Water	8011	43760
410-12999-5	RW-703_20200903	Total/NA	Water	8011	43760
410-12999-6	S-377_20200903	Total/NA	Water	8011	43760
410-12999-7	S-376_SL_20200903	Total/NA	Water	8011	43760
MB 410-43760/1-A	Method Blank	Total/NA	Water	8011	43760
LCS 410-43760/2-A	Lab Control Sample	Total/NA	Water	8011	43760
LCSD 410-43760/3-A	Lab Control Sample Dup	Total/NA	Water	8011	43760

Metals

Filtration Batch: 41786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12999-1	S-378_20200902	Dissolved	Water	Filtration	

Metals (Continued)

Filtration Batch: 41786 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12999-2	S-375_20200902	Dissolved	Water	Filtration	
410-12999-3	S-38_20200902	Dissolved	Water	Filtration	
410-12999-5	RW-703_20200903	Dissolved	Water	Filtration	
410-12999-6	S-377_20200903	Dissolved	Water	Filtration	
410-12999-7	S-376_SL_20200903	Dissolved	Water	Filtration	
410-12999-7 MS	S-376_SL_20200903	Dissolved	Water	Filtration	
410-12999-7 MSD	S-376_SL_20200903	Dissolved	Water	Filtration	
410-12999-7 DU	S-376_SL_20200903	Dissolved	Water	Filtration	

Prep Batch: 41829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12999-1	S-378_20200902	Dissolved	Water	Non-Digest Prep	41786
410-12999-2	S-375_20200902	Dissolved	Water	Non-Digest Prep	41786
410-12999-3	S-38_20200902	Dissolved	Water	Non-Digest Prep	41786
410-12999-5	RW-703_20200903	Dissolved	Water	Non-Digest Prep	41786
410-12999-6	S-377_20200903	Dissolved	Water	Non-Digest Prep	41786
410-12999-7	S-376_SL_20200903	Dissolved	Water	Non-Digest Prep	41786
MB 410-41829/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-41829/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	
410-12999-7 MS	S-376_SL_20200903	Dissolved	Water	Non-Digest Prep	41786
410-12999-7 MSD	S-376_SL_20200903	Dissolved	Water	Non-Digest Prep	41786
410-12999-7 DU	S-376_SL_20200903	Dissolved	Water	Non-Digest Prep	41786

Analysis Batch: 43492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-12999-1	S-378_20200902	Dissolved	Water	6020A	41829
410-12999-2	S-375_20200902	Dissolved	Water	6020A	41829
410-12999-3	S-38_20200902	Dissolved	Water	6020A	41829
410-12999-5	RW-703_20200903	Dissolved	Water	6020A	41829
410-12999-6	S-377_20200903	Dissolved	Water	6020A	41829
410-12999-7	S-376_SL_20200903	Dissolved	Water	6020A	41829
MB 410-41829/1-A	Method Blank	Total/NA	Water	6020A	41829
LCS 410-41829/2-A	Lab Control Sample	Total/NA	Water	6020A	41829
410-12999-7 MS	S-376_SL_20200903	Dissolved	Water	6020A	41829
410-12999-7 MSD	S-376_SL_20200903	Dissolved	Water	6020A	41829
410-12999-7 DU	S-376_SL_20200903	Dissolved	Water	6020A	41829

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Penrose Drilling Sampling

Job ID: 410-12999-1

Client Sample ID: S-378_20200902

Lab Sample ID: 410-12999-1

Date Collected: 09/02/20 13:15

Matrix: Water

Date Received: 09/03/20 16:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		10	42901	09/11/20 16:54	UKAD	ELLE
Total/NA	Analysis	8260C/UST	DL	100	42901	09/11/20 17:18	UKAD	ELLE
Total/NA	Prep	3510C			41935	09/09/20 09:30	R9CT	ELLE
Total/NA	Analysis	8270D		1	43443	09/14/20 11:01	W6XI	ELLE
Total/NA	Prep	3510C	DL		41935	09/09/20 09:30	R9CT	ELLE
Total/NA	Analysis	8270D	DL	2	43721	09/15/20 00:54	W6XI	ELLE
Total/NA	Prep	8011			43760	09/14/20 22:57	K2IL	ELLE
Total/NA	Analysis	8011		1	44181	09/16/20 10:48	AC3T	ELLE
Dissolved	Filtration	Filtration			41786	09/08/20 18:45	UJLA	ELLE
Dissolved	Prep	Non-Digest Prep			41829	09/08/20 20:48	UJLA	ELLE
Dissolved	Analysis	6020A		1	43492	09/11/20 19:06	V5SW	ELLE

Client Sample ID: S-375_20200902

Lab Sample ID: 410-12999-2

Date Collected: 09/02/20 14:30

Matrix: Water

Date Received: 09/03/20 16:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	42901	09/11/20 17:42	UKAD	ELLE
Total/NA	Analysis	8260C/UST	DL	50	42901	09/11/20 18:06	UKAD	ELLE
Total/NA	Prep	3510C			41935	09/09/20 09:30	R9CT	ELLE
Total/NA	Analysis	8270D		1	43443	09/14/20 11:30	W6XI	ELLE
Total/NA	Prep	3510C	DL		41935	09/09/20 09:30	R9CT	ELLE
Total/NA	Analysis	8270D	DL	2	43721	09/15/20 01:23	W6XI	ELLE
Total/NA	Prep	8011			43760	09/14/20 22:57	K2IL	ELLE
Total/NA	Analysis	8011		1	44181	09/16/20 11:05	AC3T	ELLE
Dissolved	Filtration	Filtration			41786	09/08/20 18:45	UJLA	ELLE
Dissolved	Prep	Non-Digest Prep			41829	09/08/20 20:48	UJLA	ELLE
Dissolved	Analysis	6020A		1	43492	09/11/20 19:17	V5SW	ELLE

Client Sample ID: S-38_20200902

Lab Sample ID: 410-12999-3

Date Collected: 09/02/20 15:45

Matrix: Water

Date Received: 09/03/20 16:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	42901	09/11/20 14:53	UKAD	ELLE
Total/NA	Prep	3510C			41935	09/09/20 09:30	R9CT	ELLE
Total/NA	Analysis	8270D		1	43443	09/14/20 11:59	W6XI	ELLE
Total/NA	Prep	8011			43760	09/14/20 22:57	K2IL	ELLE
Total/NA	Analysis	8011		1	44181	09/16/20 11:22	AC3T	ELLE
Dissolved	Filtration	Filtration			41786	09/08/20 18:45	UJLA	ELLE
Dissolved	Prep	Non-Digest Prep			41829	09/08/20 20:48	UJLA	ELLE
Dissolved	Analysis	6020A		1	43492	09/11/20 19:20	V5SW	ELLE

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Penrose Drilling Sampling

Job ID: 410-12999-1

Client Sample ID: TB_20200902

Lab Sample ID: 410-12999-4
Matrix: Water
Date Collected: 09/02/20 00:00
Date Received: 09/03/20 16:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	42901	09/11/20 14:05	UKAD	ELLE
Total/NA	Prep	8011			43760	09/14/20 22:57	K2IL	ELLE
Total/NA	Analysis	8011		1	44181	09/16/20 11:39	AC3T	ELLE

Client Sample ID: RW-703_20200903

Lab Sample ID: 410-12999-5
Matrix: Water
Date Collected: 09/03/20 09:30
Date Received: 09/03/20 16:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		20	42901	09/11/20 18:30	UKAD	ELLE
Total/NA	Analysis	8260C/UST	DL	200	42901	09/11/20 18:54	UKAD	ELLE
Total/NA	Prep	3510C			42632	09/10/20 17:40	QQ3P	ELLE
Total/NA	Analysis	8270D		1	43893	09/15/20 22:47	SJ89	ELLE
Total/NA	Prep	3510C	DL		42632	09/10/20 17:40	QQ3P	ELLE
Total/NA	Analysis	8270D	DL	5	44224	09/16/20 01:35	W6XI	ELLE
Total/NA	Prep	8011			43760	09/14/20 22:57	K2IL	ELLE
Total/NA	Analysis	8011		1	44181	09/16/20 11:56	AC3T	ELLE
Dissolved	Filtration	Filtration			41786	09/08/20 18:45	UJLA	ELLE
Dissolved	Prep	Non-Digest Prep			41829	09/08/20 20:48	UJLA	ELLE
Dissolved	Analysis	6020A		1	43492	09/11/20 19:09	V5SW	ELLE

Client Sample ID: S-377_20200903

Lab Sample ID: 410-12999-6
Matrix: Water
Date Collected: 09/03/20 11:15
Date Received: 09/03/20 16:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	42901	09/11/20 19:18	UKAD	ELLE
Total/NA	Analysis	8260C/UST	DL	50	42901	09/11/20 19:42	UKAD	ELLE
Total/NA	Prep	3510C			42632	09/10/20 17:40	QQ3P	ELLE
Total/NA	Analysis	8270D		1	44224	09/16/20 02:05	W6XI	ELLE
Total/NA	Prep	8011			43760	09/14/20 22:57	K2IL	ELLE
Total/NA	Analysis	8011		1	44181	09/16/20 12:13	AC3T	ELLE
Dissolved	Filtration	Filtration			41786	09/08/20 18:45	UJLA	ELLE
Dissolved	Prep	Non-Digest Prep			41829	09/08/20 20:48	UJLA	ELLE
Dissolved	Analysis	6020A		1	43492	09/11/20 19:15	V5SW	ELLE

Client Sample ID: S-376_SL_20200903

Lab Sample ID: 410-12999-7
Matrix: Water
Date Collected: 09/03/20 12:55
Date Received: 09/03/20 16:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		10	42901	09/11/20 20:06	UKAD	ELLE
Total/NA	Analysis	8260C/UST	DL	100	42901	09/11/20 20:30	UKAD	ELLE
Total/NA	Prep	3510C			42632	09/10/20 17:40	QQ3P	ELLE
Total/NA	Analysis	8270D		1	44224	09/16/20 02:35	W6XI	ELLE

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Penrose Drilling Sampling

Job ID: 410-12999-1

Client Sample ID: S-376_SL_20200903

Date Collected: 09/03/20 12:55
Date Received: 09/03/20 16:43

Lab Sample ID: 410-12999-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			42632	09/10/20 17:40	QQ3P	ELLE
Total/NA	Analysis	8270D		5	44385	09/16/20 13:08	WKV3	ELLE
Total/NA	Prep	8011			43760	09/14/20 22:57	K2IL	ELLE
Total/NA	Analysis	8011		1	44181	09/16/20 12:30	AC3T	ELLE
Dissolved	Filtration	Filtration			41786	09/08/20 18:45	UJLA	ELLE
Dissolved	Prep	Non-Digest Prep			41829	09/08/20 20:48	UJLA	ELLE
Dissolved	Analysis	6020A		1	43492	09/11/20 18:53	V5SW	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Job ID: 410-12999-1
Project/Site: Penrose Drilling Sampling

Laboratory: Eurofins Lancaster Laboratories Env, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-21

Method Summary

Client: Stantec Consulting Corp.
Project/Site: Penrose Drilling Sampling

Job ID: 410-12999-1

Method	Method Description	Protocol	Laboratory
8260C/UST	Volatile Organic Compounds (GC/MS)	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
8011	Microextraction	SW846	ELLE
Filtration	Sample Filtration	None	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: Penrose Drilling Sampling

Job ID: 410-12999-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-12999-1	S-378_20200902	Water	09/02/20 13:15	09/03/20 16:43	
410-12999-2	S-375_20200902	Water	09/02/20 14:30	09/03/20 16:43	
410-12999-3	S-38_20200902	Water	09/02/20 15:45	09/03/20 16:43	
410-12999-4	TB_20200902	Water	09/02/20 00:00	09/03/20 16:43	
410-12999-5	RW-703_20200903	Water	09/03/20 09:30	09/03/20 16:43	
410-12999-6	S-377_20200903	Water	09/03/20 11:15	09/03/20 16:43	
410-12999-7	S-376_SL_20200903	Water	09/03/20 12:55	09/03/20 16:43	

Environmental Analysis Re[illegible]stody

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410-12999 Chain of Custody

Acct. # _____ [illegible]use only

COC #608501

Client Information	
Client: Evergreen c/o Stantec	Acct. #: 16657
Project Name #: Penrose Drilling Sampling	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 213402602
Sampler: Dane Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

For Lab Use Only
FSC:
SCR#: 260445

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Sample Identification	Collected Date	Collected Time	Grab	Composite	Matrix: Soil ☐ Sediment ☐ Tissue	Water: Potable ☐ Ground ☒ NPDES ☐ Surface	Other: trip blank	Total # of Containers	Analysis Requested: Short List SVOCS 8270	Short List VOC 8260 and TBA	EDB 8011	dissolved lead (lab filter)	Remarks
S-378_20200902	9/2/20	1315	X			X		8	X	X	X	X	
S-375_20200902	9/2/20	1430	X			X		8	X	X	X	X	
S-38_20200902	9/2/20	1545	X			X		8	X	X	X	X	
TB_20200902	8/30/20	—					X	2		X	X		
RW-703_20200903	9/3/20	0930	X			X		8	X	X	X	X	
S-377_20200903	9/3/20	1115	X			X		8	X	X	X	X	
S-376_SL_20200903	9/3/20	1255	X			X		8	X	X	X	X	

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: andrew.klingbeil@stantec.com

Relinquished by	Date	Time	Received by	Date	Time
Dane	9/3/20	13:15	Pienne	9/3/20	13:15
Pienne	9/3/20	16:20			
			Received by	9-3-20	1643

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

EDD Required? Yes No
If yes, format: EQUIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:
UPS _____ FedEx _____ Other _____

Temperature upon receipt 2.9 °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT https://www.eurofinsus.com/coc
The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0919

TWR

CB

10/2/2020

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-12999-1

Login Number: 12999
List Number: 1
Creator: Rivera, Tatiana

List Source: Eurofins Lancaster Laboratories Env

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	True	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-14623-1
Client Project/Site: PHL Penrose Drilling Sampling

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Andrew Klingbeil

Authorized for release by:
11/10/2020 5:47:27 PM

Amek Carter, Project Manager
(717)556-7252
amekcarter@eurofinsus.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
11/10/2020 5:47:27 PM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 6
Client Sample Results 7
Surrogate Summary 9
QC Sample Results 10
QC Association Summary 12
Lab Chronicle 14
Certification Summary 16
Method Summary 17
Sample Summary 18
Chain of Custody 19
Receipt Checklists 26

Definitions/Glossary

Client: Stantec Consulting Corp.
Job ID: 410-14623-1
Project/Site: PHL Penrose Drilling Sampling

Qualifiers

GC VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
H	Sample was prepped or analyzed beyond the specified holding time
H3	Sample was received and analyzed past holding time.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
H3	Sample was received and analyzed past holding time.
XH	Surrogate recovery is above control limits

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-14623-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-14623-1

Receipt
The samples were received on 9/21/2020 8:43 PM; the samples arrived in good condition, and, where required, properly preserved and on ice.

Gasoline Range Organics
Method 8015D_GRO: The method blank for preparation batch 410-62252 and 410-63150 and analytical batch 410-63837 contained GRO above the method detection limit (MDL). Associated sample(s) were not re-analyzed because results were greater than 10X the value found in the method blank. The associated samples are: CD-12-S-25.0-20200617 (410-14623-7) and (410-19761-A-4-A).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8011: The following samples were analyzed outside of analytical holding time due to received out of holding time : CD-6B-W-45.0-20200630 (410-14623-1), CD-6A-W-19.0-20200722 (410-14623-2), CD-6A-W-44.0-20200723 (410-14623-3), CD-3-W-25.0-20200728 (410-14623-4), CD-3-W-46.0-20200729 (410-14623-5) and CD-3-W-82.0-20200730 (410-14623-6).

Method 8011: The 1,1,2,2-Tetrachloroethane (Surr) surrogate recovery for the following samples was outside acceptance limits (high biased) on the confirmation column due to matrix interference: CD-6A-W-19.0-20200722 (410-14623-2). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

Method 8011: The 1,1,2,2-Tetrachloroethane (Surr) surrogate recovery for the following samples was outside acceptance limits (high biased) on the primary column due to matrix interference: CD-3-W-25.0-20200728 (410-14623-4). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-14623-1

Client Sample ID: CD-6B-W-45.0-20200630 — Lab Sample ID: 410-14623-1

No Detections.

Client Sample ID: CD-6A-W-19.0-20200722 — Lab Sample ID: 410-14623-2

No Detections.

Client Sample ID: CD-6A-W-44.0-20200723 — Lab Sample ID: 410-14623-3

No Detections.

Client Sample ID: CD-3-W-25.0-20200728 — Lab Sample ID: 410-14623-4

No Detections.

Client Sample ID: CD-3-W-46.0-20200729 — Lab Sample ID: 410-14623-5

No Detections.

Client Sample ID: CD-3-W-82.0-20200730 — Lab Sample ID: 410-14623-6

No Detections.

Client Sample ID: CD-12-S-25.0-20200617 — Lab Sample ID: 410-14623-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C5-C12 (1C)	3.0	H B H3	1.3	0.26	mg/Kg	25	☼	8015D	Total/NA

Client Sample ID: CD-10-S-3.0-20200622 — Lab Sample ID: 410-14623-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	8.8		1.7	0.67	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: CD-10-S-38.0-20200623 — Lab Sample ID: 410-14623-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.99	J	1.3	0.51	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CD-6B-W-45.0-20200630
Lab Sample ID: 410-14623-1

Date Collected: 06/30/20 10:20
Matrix: Water
Date Received: 09/21/20 20:43

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND	H H3	0.029	0.0096	ug/L		09/23/20 21:41	09/25/20 01:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*128*		*46 - 136*	*09/23/20 21:41*	*09/25/20 01:20*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*86*		*46 - 136*	*09/23/20 21:41*	*09/25/20 01:20*	*1*

Client Sample ID: CD-6A-W-19.0-20200722
Lab Sample ID: 410-14623-2

Date Collected: 07/22/20 14:30
Matrix: Water
Date Received: 09/21/20 20:43

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND	H H3	0.029	0.0097	ug/L		09/23/20 21:41	09/25/20 01:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*81*		*46 - 136*	*09/23/20 21:41*	*09/25/20 01:36*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*606*	*XH*	*46 - 136*	*09/23/20 21:41*	*09/25/20 01:36*	*1*

Client Sample ID: CD-6A-W-44.0-20200723
Lab Sample ID: 410-14623-3

Date Collected: 07/23/20 14:30
Matrix: Water
Date Received: 09/21/20 20:43

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND	H H3	0.029	0.0097	ug/L		09/23/20 21:41	09/25/20 01:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*134*		*46 - 136*	*09/23/20 21:41*	*09/25/20 01:53*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*85*		*46 - 136*	*09/23/20 21:41*	*09/25/20 01:53*	*1*

Client Sample ID: CD-3-W-25.0-20200728
Lab Sample ID: 410-14623-4

Date Collected: 07/28/20 10:10
Matrix: Water
Date Received: 09/21/20 20:43

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND	H H3	0.030	0.0099	ug/L		09/23/20 21:41	09/25/20 02:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*552*	*XH*	*46 - 136*	*09/23/20 21:41*	*09/25/20 02:10*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*89*		*46 - 136*	*09/23/20 21:41*	*09/25/20 02:10*	*1*

Client Sample ID: CD-3-W-46.0-20200729
Lab Sample ID: 410-14623-5

Date Collected: 07/29/20 10:45
Matrix: Water
Date Received: 09/21/20 20:43

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND	H H3	0.029	0.0096	ug/L		09/23/20 21:41	09/25/20 02:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*111*		*46 - 136*	*09/23/20 21:41*	*09/25/20 02:27*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*85*		*46 - 136*	*09/23/20 21:41*	*09/25/20 02:27*	*1*

Client Sample ID: CD-3-W-82.0-20200730
Lab Sample ID: 410-14623-6

Date Collected: 07/30/20 11:45
Matrix: Water
Date Received: 09/21/20 20:43

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND	H H3	0.035	0.012	ug/L		09/23/20 21:41	09/25/20 02:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*111*		*46 - 136*	*09/23/20 21:41*	*09/25/20 02:43*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*99*		*46 - 136*	*09/23/20 21:41*	*09/25/20 02:43*	*1*

Client Sample ID: CD-12-S-25.0-20200617
Lab Sample ID: 410-14623-7

Date Collected: 06/17/20 17:15
Matrix: Solid
Date Received: 09/21/20 20:43
Percent Solids: 86.4

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C12 (1C)	**3.0**	**H B H3**	1.3	0.26	mg/Kg	☼	11/04/20 18:35	11/09/20 21:41	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (fid) (1C)	*116*		*50 - 142*	*11/04/20 18:35*	*11/09/20 21:41*	*25*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**13.6**		1.0	1.0	%			09/25/20 13:01	1

Client Sample ID: CD-10-S-3.0-20200622
Lab Sample ID: 410-14623-8

Date Collected: 06/22/20 14:30
Matrix: Solid
Date Received: 09/21/20 20:43

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**12.8**		1.0	1.0	%			09/23/20 19:29	1

Client Sample ID: CD-10-S-3.0-20200622
Lab Sample ID: 410-14623-8

Date Collected: 06/22/20 14:30
Matrix: Solid
Date Received: 09/21/20 20:43
Percent Solids: 87.2

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**8.8**		1.7	0.67	mg/Kg	☼	09/29/20 08:08	09/30/20 17:11	1

Client Sample ID: CD-10-S-38.0-20200623
Lab Sample ID: 410-14623-9

Date Collected: 06/23/20 12:20
Matrix: Solid
Date Received: 09/21/20 20:43

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**12.7**		1.0	1.0	%			09/23/20 19:29	1

Client Sample ID: CD-10-S-38.0-20200623
Lab Sample ID: 410-14623-9

Date Collected: 06/23/20 12:20
Matrix: Solid
Date Received: 09/21/20 20:43
Percent Solids: 87.3

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.99**	**J**	1.3	0.51	mg/Kg	☼	09/24/20 04:46	09/24/20 17:26	1

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: PHL Penrose Drilling Sampling

Job ID: 410-14623-1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	TFT-F1 (50-142)							
410-14623-7	CD-12-S-25.0-20200617	116							
LCS 410-63837/5	Lab Control Sample	106							
LCSD 410-63837/6	Lab Control Sample Dup	106							
MB 410-63837/4	Method Blank	103							

Surrogate Legend

TFT-F = a,a,a-Trifluorotoluene (fid)

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	1122TCA1 (46-136)	1122TCA2 (46-136)						
410-14623-1	CD-6B-W-45.0-20200630	128	86						
410-14623-2	CD-6A-W-19.0-20200722	81	606 XH						
410-14623-3	CD-6A-W-44.0-20200723	134	85						
410-14623-4	CD-3-W-25.0-20200728	552 XH	89						
410-14623-5	CD-3-W-46.0-20200729	111	85						
410-14623-6	CD-3-W-82.0-20200730	111	99						
LCS 410-47145/2-A	Lab Control Sample	85	91						
LCSD 410-47145/3-A	Lab Control Sample Dup	87	93						
MB 410-47145/1-A	Method Blank	88	95						

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 410-63837/4
Matrix: Solid
Analysis Batch: 63837

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C12 (1C)	0.289	J B	1.0	0.20	mg/Kg			11/09/20 18:55	25

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene (fid) (1C)	*103*		*50 - 142*		*11/09/20 18:55*	*25*

Lab Sample ID: LCS 410-63837/5
Matrix: Solid
Analysis Batch: 63837

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C5-C12 (1C)			11.0	12.3		mg/Kg		111	67 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene (fid) (1C)	*106*		*50 - 142*

Lab Sample ID: LCSD 410-63837/6
Matrix: Solid
Analysis Batch: 63837

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C5-C12 (1C)			11.0	10.9		mg/Kg		100	67 - 120	11	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene (fid) (1C)	*106*		*50 - 142*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-47145/1-A
Matrix: Water
Analysis Batch: 47548

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 47145

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		09/23/20 21:41	09/24/20 19:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*88*		*46 - 136*	*09/23/20 21:41*	*09/24/20 19:11*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*95*		*46 - 136*	*09/23/20 21:41*	*09/24/20 19:11*	*1*

Lab Sample ID: LCS 410-47145/2-A
Matrix: Water
Analysis Batch: 47548

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 47145

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.135		ug/L		105	60 - 140		

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: LCS 410-47145/2-A
Matrix: Water
Analysis Batch: 47548

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 47145

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*85*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*91*		*46 - 136*

Lab Sample ID: LCSD 410-47145/3-A
Matrix: Water
Analysis Batch: 47548

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 47145

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.124		ug/L		97	60 - 140	8	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*87*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*93*		*46 - 136*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-47140/1-A
Matrix: Solid
Analysis Batch: 47552

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 47140

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.2	0.50	mg/Kg		09/23/20 21:03	09/24/20 15:53	1

Lab Sample ID: LCS 410-47140/2-A
Matrix: Solid
Analysis Batch: 47552

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 47140

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			2.58	2.73		mg/Kg		106	80 - 120		

Lab Sample ID: MB 410-48737/1-A
Matrix: Solid
Analysis Batch: 49566

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 48737

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5	0.59	mg/Kg		09/29/20 08:08	09/30/20 16:33	1

Lab Sample ID: LCS 410-48737/2-A
Matrix: Solid
Analysis Batch: 49566

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 48737

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			2.91	3.20		mg/Kg		110	80 - 120		

GC VOA

Prep Batch: 62252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-14623-7	CD-12-S-25.0-20200617	Total/NA	Solid	5030C	

Analysis Batch: 63837

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-14623-7	CD-12-S-25.0-20200617	Total/NA	Solid	8015D	62252
MB 410-63837/4	Method Blank	Total/NA	Solid	8015D	
LCS 410-63837/5	Lab Control Sample	Total/NA	Solid	8015D	
LCSD 410-63837/6	Lab Control Sample Dup	Total/NA	Solid	8015D	

GC Semi VOA

Prep Batch: 47145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-14623-1	CD-6B-W-45.0-20200630	Total/NA	Water	8011	
410-14623-2	CD-6A-W-19.0-20200722	Total/NA	Water	8011	
410-14623-3	CD-6A-W-44.0-20200723	Total/NA	Water	8011	
410-14623-4	CD-3-W-25.0-20200728	Total/NA	Water	8011	
410-14623-5	CD-3-W-46.0-20200729	Total/NA	Water	8011	
410-14623-6	CD-3-W-82.0-20200730	Total/NA	Water	8011	
MB 410-47145/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-47145/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-47145/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 47548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-14623-1	CD-6B-W-45.0-20200630	Total/NA	Water	8011	47145
410-14623-2	CD-6A-W-19.0-20200722	Total/NA	Water	8011	47145
410-14623-3	CD-6A-W-44.0-20200723	Total/NA	Water	8011	47145
410-14623-4	CD-3-W-25.0-20200728	Total/NA	Water	8011	47145
410-14623-5	CD-3-W-46.0-20200729	Total/NA	Water	8011	47145
410-14623-6	CD-3-W-82.0-20200730	Total/NA	Water	8011	47145
MB 410-47145/1-A	Method Blank	Total/NA	Water	8011	47145
LCS 410-47145/2-A	Lab Control Sample	Total/NA	Water	8011	47145
LCSD 410-47145/3-A	Lab Control Sample Dup	Total/NA	Water	8011	47145

Metals

Prep Batch: 47140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-14623-9	CD-10-S-38.0-20200623	Total/NA	Solid	3050B	
MB 410-47140/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 410-47140/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 47552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-14623-9	CD-10-S-38.0-20200623	Total/NA	Solid	6010C	47140
MB 410-47140/1-A	Method Blank	Total/NA	Solid	6010C	47140
LCS 410-47140/2-A	Lab Control Sample	Total/NA	Solid	6010C	47140

Prep Batch: 48737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-14623-8	CD-10-S-3.0-20200622	Total/NA	Solid	3050B	

Metals (Continued)

Prep Batch: 48737 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-48737/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 410-48737/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 49566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-14623-8	CD-10-S-3.0-20200622	Total/NA	Solid	6010C	48737
MB 410-48737/1-A	Method Blank	Total/NA	Solid	6010C	48737
LCS 410-48737/2-A	Lab Control Sample	Total/NA	Solid	6010C	48737

General Chemistry

Analysis Batch: 47101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-14623-8	CD-10-S-3.0-20200622	Total/NA	Solid	Moisture	
410-14623-9	CD-10-S-38.0-20200623	Total/NA	Solid	Moisture	

Analysis Batch: 47863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-14623-7	CD-12-S-25.0-20200617	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Stantec Consulting Corp.
Job ID: 410-14623-1
Project/Site: PHL Penrose Drilling Sampling

Client Sample ID: CD-6B-W-45.0-20200630
Lab Sample ID: 410-14623-1
Date Collected: 06/30/20 10:20
Matrix: Water
Date Received: 09/21/20 20:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			47145	09/23/20 21:41	K2IL	ELLE
Total/NA	Analysis	8011		1	47548	09/25/20 01:20	AC3T	ELLE

Client Sample ID: CD-6A-W-19.0-20200722
Lab Sample ID: 410-14623-2
Date Collected: 07/22/20 14:30
Matrix: Water
Date Received: 09/21/20 20:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			47145	09/23/20 21:41	K2IL	ELLE
Total/NA	Analysis	8011		1	47548	09/25/20 01:36	AC3T	ELLE

Client Sample ID: CD-6A-W-44.0-20200723
Lab Sample ID: 410-14623-3
Date Collected: 07/23/20 14:30
Matrix: Water
Date Received: 09/21/20 20:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			47145	09/23/20 21:41	K2IL	ELLE
Total/NA	Analysis	8011		1	47548	09/25/20 01:53	AC3T	ELLE

Client Sample ID: CD-3-W-25.0-20200728
Lab Sample ID: 410-14623-4
Date Collected: 07/28/20 10:10
Matrix: Water
Date Received: 09/21/20 20:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			47145	09/23/20 21:41	K2IL	ELLE
Total/NA	Analysis	8011		1	47548	09/25/20 02:10	AC3T	ELLE

Client Sample ID: CD-3-W-46.0-20200729
Lab Sample ID: 410-14623-5
Date Collected: 07/29/20 10:45
Matrix: Water
Date Received: 09/21/20 20:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			47145	09/23/20 21:41	K2IL	ELLE
Total/NA	Analysis	8011		1	47548	09/25/20 02:27	AC3T	ELLE

Client Sample ID: CD-3-W-82.0-20200730
Lab Sample ID: 410-14623-6
Date Collected: 07/30/20 11:45
Matrix: Water
Date Received: 09/21/20 20:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			47145	09/23/20 21:41	K2IL	ELLE
Total/NA	Analysis	8011		1	47548	09/25/20 02:43	AC3T	ELLE

Lab Chronicle

Client: Stantec Consulting Corp.
Job ID: 410-14623-1
Project/Site: PHL Penrose Drilling Sampling

Client Sample ID: CD-12-S-25.0-20200617
Lab Sample ID: 410-14623-7
Date Collected: 06/17/20 17:15
Matrix: Solid
Date Received: 09/21/20 20:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	47863	09/25/20 13:01	UGCW	ELLE

Client Sample ID: CD-12-S-25.0-20200617
Lab Sample ID: 410-14623-7
Date Collected: 06/17/20 17:15
Matrix: Solid
Date Received: 09/21/20 20:43
Percent Solids: 86.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			62252	11/04/20 18:35	ULEH	ELLE
Total/NA	Analysis	8015D		25	63837	11/09/20 21:41	JJT8	ELLE

Client Sample ID: CD-10-S-3.0-20200622
Lab Sample ID: 410-14623-8
Date Collected: 06/22/20 14:30
Matrix: Solid
Date Received: 09/21/20 20:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	47101	09/23/20 19:29	OEL4	ELLE

Client Sample ID: CD-10-S-3.0-20200622
Lab Sample ID: 410-14623-8
Date Collected: 06/22/20 14:30
Matrix: Solid
Date Received: 09/21/20 20:43
Percent Solids: 87.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			48737	09/29/20 08:08	UAMX	ELLE
Total/NA	Analysis	6010C		1	49566	09/30/20 17:11	UCIG	ELLE

Client Sample ID: CD-10-S-38.0-20200623
Lab Sample ID: 410-14623-9
Date Collected: 06/23/20 12:20
Matrix: Solid
Date Received: 09/21/20 20:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	47101	09/23/20 19:29	OEL4	ELLE

Client Sample ID: CD-10-S-38.0-20200623
Lab Sample ID: 410-14623-9
Date Collected: 06/23/20 12:20
Matrix: Solid
Date Received: 09/21/20 20:43
Percent Solids: 87.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			47140	09/24/20 04:46	UAMX	ELLE
Total/NA	Analysis	6010C		1	47552	09/24/20 17:26	UCIG	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp. Job ID: 410-14623-1
Project/Site: PHL Penrose Drilling Sampling

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture

Method Summary

Client: Stantec Consulting Corp.
Job ID: 410-14623-1
Project/Site: PHL Penrose Drilling Sampling

Method	Method Description	Protocol	Laboratory
8015D	Gasoline Range Organics (GRO) (GC)	SW846	ELLE
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
6010C	Metals (ICP)	SW846	ELLE
Moisture	Percent Moisture	EPA	ELLE
3050B	Preparation, Metals	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
8011	Microextraction	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Job ID: 410-14623-1
Project/Site: PHL Penrose Drilling Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-14623-1	CD-6B-W-45.0-20200630	Water	06/30/20 10:20	09/21/20 20:43	
410-14623-2	CD-6A-W-19.0-20200722	Water	07/22/20 14:30	09/21/20 20:43	
410-14623-3	CD-6A-W-44.0-20200723	Water	07/23/20 14:30	09/21/20 20:43	
410-14623-4	CD-3-W-25.0-20200728	Water	07/28/20 10:10	09/21/20 20:43	
410-14623-5	CD-3-W-46.0-20200729	Water	07/29/20 10:45	09/21/20 20:43	
410-14623-6	CD-3-W-82.0-20200730	Water	07/30/20 11:45	09/21/20 20:43	
410-14623-7	CD-12-S-25.0-20200617	Solid	06/17/20 17:15	09/21/20 20:43	
410-14623-8	CD-10-S-3.0-20200622	Solid	06/22/20 14:30	09/21/20 20:43	
410-14623-9	CD-10-S-38.0-20200623	Solid	06/23/20 12:20	09/21/20 20:43	

Environmental Analysis Custody

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Acct #

410-14623 Chain of Custody

nental use only

COC #608753

Client Information		Matrix					Analysis Requested										For Lab Use Only
Client: Evergreen c/o Stantec	Acct #: 16657	Soil ☐ Sediment ☐ Tissue ☐	Water ☒ Potable ☐ Ground ☐ NPDES ☐	Other:	Total # of Containers	Preservation and Filtration Codes											FSC:
Project Name: PHL Penrose Drilling Sampling	PWSID #																SCR#:
Project Manager: Andrew Klinebeil	PO # 2134026602																
Sampler: Dane Hopkins	Quote #																
State where samples were collected: PA	For Compliance: Yes ☐ No ☐																

Sample Identification	Collected Date	Collected Time	Grab	Composite	Custom TPH w/ Ranges	TPH-GRO BTEX MTBE	Metals 6010 / 7470 (dissolved Ba, Fe, Mn) Total Iron	Sulfide	Chloride, Nitrate, Nitrogen, Sulfate	Volatile Headspace Hydrocarbons	Total Alkalinity to 4.5	Ammonia Nitrogen	*Short List VOCs 8260 (include TPH 8015 + EDB 8011)	*Short List SVOCs 8270
CD-6B-W-4520-20200630	6/30/20	1020			X	X	X	X	X	X	X	X	X	X

Preservation Codes: H=HCl, T=Thiosulfate, N=HNO_3, B=NaOH, S=H_2SO_4, P=H_3PO_4, F=Field Filtered, O=Other

Remarks: *refer to Evergreen Petroleum Short List for list of analytes

Turnaround Time (TAT) Requested (please circle): (Standard) Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days:

E-mail address: andrew.klinebeil@stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)

Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13

NYSDEC Category A or B | MA MCP | CT RCP

Relinquished by	Date	Time	Received by	Date	Time
Dane	6/30/20	1140	Pierre	6/30/20	11:40
Pierre	6/30/20	1540			

EDD Required? (Yes) No

If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS FedEx Other

Temperature upon receipt 0.7 °C

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Environmental Analysis ... tody

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Acct # ____ ... only

COC # 608900

Client Information	
Client: Evergreen c/o Stantec	Acct #: 16657
Project Name/#: PHL Penrose Drilling Sampling	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 213402602
Sampler: Dane Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: ____

Analysis Requested — Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Water	Other	Total # of Containers	Custom TPH w/ Ranges	TPH-GRO 8260/moisture (H)	Metal 6010/Lead (dissolved 6020 total 6010B) (N)	Sulfide (O)	Chloride, Nitrate Nitrogen, Sulfate	Volatile Hydrocarbons (H)	Total Alkalinity to 4.5	Ammonia Nitrogen (S)	*Short List VOCs 8260 including TBA 8260 + EDB 8011 (H)	*Short List SVOCs 8270	Remarks
CD-6A-W-19.0-20200722	7/22/20	1430	X			X		17	X	X	X	X	X	X	X	X	X	X	
CD-6A-W-44.0-20200723	7/23/20	1430	X			X		17	X	X	X	X	X	X	X	X	X	X	

For Lab Use Only: FSC: ____ SCR#: ____

Preservation Codes

H=HCl	T=Thiosulfate
N=HNO_3	B=NaOH
S=H_2SO_4	P=H_3PO_4
F=Field Filtered	O=Other

Remarks

* refer to Evergreen Petroleum Short List for list of analytes

Turnaround Time (TAT) Requested (please circle)

Standard (circled) Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: ____

E-mail address: Andrew.Klingbeil@stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)

Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13

NYSDEC Category A or B | MA MCP | CT RCP

Relinquished by	Date	Time	Received by	Date	Time
[signature]	7-23-20	1655	[signature]	7-23	1655
[signature]	7-23-20	1825			
			[signature]	7-23-20	1858

EDD Required? Yes (circled) No

If yes, format: EQUIS

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other ____

Temperature upon receipt 1.0 °C

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Environmental Analysis Chain of Custody

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Acct. ____ Lab use only

COC #608583

Client Information

Client: Evergreen c/o Stantec	Acct. #: 106657
Project Name: PAL Penrose Drilling Sampling	PWSID #:
Project Manager: Andrew Klingbeil	PO #: 2134026.02
Sampler: Dave Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ | Water ☒ Ground ☐ Potable ☐ Surface ☐ NPDES ☐ | Other: ____

Analysis Requested

Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	Custom TPH w/ Ranges	TPH-GRO 8260 (Modified)	Metal VOC (dissolved)	Sulfide	Chloride, Nitrate, Nitrogen, Sulfate	Volatile Headspace Hydrocarbons	Total Alkalinity to 4.5	Ammonia Nitrogen	*Short List VOCs 8260 including TPH 8260 + EDB/DBCP	*Short List SVOCs 8270
CD-3-W-252-20200728	7/28/2020	1010	X		17	X	X	X	X	X	X	X	X	X	X

For Lab Use Only: FSC: ____ SCR#: ____

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks

*refer to Evergreen Petroleum Short List for list of analytes

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: ____

E-mail address: Andrew.Klingbeil@stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)

Type III (Reduced non-CLP) NJ DKQP TX TRRP-13

NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
	7/29/20	12:10		7/29/20	12:10
	7/29/20	1540			
				7-29-20	1555

EDD Required? (Yes) No

If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other ____

Temperature upon receipt 4.3 °C

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Environmental Analysis

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COC # 610328

Client Information	
Client: Evergreen c/o Stantec	Acct #: 16657
Project Name/#: PHC Penrose Drilling Sampling	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 213402602
Sampler: Dane Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other:

Analysis Requested — Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Water	Other	Total # of Containers	Custom TPH w/ Ranges	TPH GRO 8260/moisture	Metal 6010/Lead (dissolved 6020/total 6010)	Sulfide	Chloride, Nitrate Nitrogen Sulfate	Volatile Headspace Hydrocarbon	Total Alkalinity to 4.5	Ammonia Nitrogen	*Short List VOCs 8260 including TBA 8260 + EDB 8011	*Short list SVOCs 8270	Remarks
CD-3-W-46.0-20200729	7/29/20	1045	X			X		17	X	X	X	X	X	X	X	X	X	X	zinc acetate bottle broke ^replaced w/ unpreserved amber

For Lab Use Only
FSC:
SCR#:

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks
* refer to Evergreen Petroleum Short List for list of analytes

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days:

E-mail address: andrew.klingbeil@stantec.com

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
[signature]	7/29/20	1115	[signature]	7-29-20	1115
[signature]	7-29-20	1554			
			[signature]	7-29-20	1607

EDD Required? Yes No
If yes, format: EQUIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other ✓

Temperature upon receipt 2.0 °C

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Environmental Analysis ody

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Acct. # _____

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COC # 610329

Client Information

Client: Evergreen c/o Stantec	Acct #: 106057
Project Name: PTL Penrose Drilling Sampling	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 2134026002
Sampler: Dana Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water ☐ Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: _____

Total # of Containers: 17

Analysis Requested

Preservation and Filtration Codes

For Lab Use Only
FSC: _____
SCR#: _____

Sample Identification	Collected Date	Collected Time	Grab	Composite	Custom TPH w/ Ranges	TPH-GRO 8260/ Moisture	Metals (Arsenic, Lead, Total Lead)	Sulfide	Chloride, Nitrate Nitrogen, Sulfate	Volatile Organic Hydrocarbons	Total Alkalinity to 4.5	Ammonia Nitrogen	1Short List BTEX 8260 + EDB (Short List 8260 including TPH 8260 + EDB)	1Short List SVOCs 8270
CD-3-W-82.0-20200730	7/30/20	1145	X		X	X	X	X	X	X	X	X	X	X

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks
*refer to Evergreen Petroleum Short List for list of analytes

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge)

Requested TAT in business days: _____

E-mail address: andrew.klingbeil@stantec.com

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
Dana	7/30/20	17:5[illegible]	Pickup	7/30/20	12:5[illegible]
Pickup	7/30/20				
			Received by		
			Received by	7/30/20	1610

EDD Required? Yes No
If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume)

Relinquished by Commercial Carrier:
UPS _____ FedEx _____ Other _____

Temperature upon receipt -0.6 °C

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WM KAM 7044 0919

Environmental Analysis Custody

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Acct. # _____

410-14623 Chain of Custody

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COC #608751

Client Information

Client: Evergreen c/o Stanter	Acct. #: 16657
Project Name/#: 213402602 PHL Penrose Drilling Sampling	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 213402602
Sampler: Dane Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Tissue ☐ | Sediment ☐ | Soil ☒ | Ground ☒ | Potable ☐ | Surface ☐ | NPDES ☐ | Water | Other: _____

Analysis Requested / Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	Custom TPH with Ranges	TPH-GRO 8260/Moisture	Metal 6010 / Lead (dissolved)	Sulfide	Chloride, Nitrate, Nitrogen, Sulfate	Volatile Headspace Hydrocarbons	Total Alkalinity to 4.5	Ammonia Nitrogen	Short List VOCs 8260	Short List SVOCs 8270*
CD-12-S-25.0-20200617	6/17/20	1715	X		6	X	X	X						X	X
CD-12-W-25.0-20200618	6/18/20	0850	X		16	X	X	X	X	X	X	X	X	X	X

Preservation Codes: H=HCl; T=Thiosulfate; N=HNO_3; B=NaOH; S=H_2SO_4; P=H_3PO_4; F=Field Filtered; O=Other

Remarks: *refer to Evergreen Petroleum Short List for list of analytes

(X) = dissolved lead 6020 only

Turnaround Time (TAT) Requested (please circle): (Standard) Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: Andrew.Klingbeil

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)

Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13

NYSDEC Category A or B | MA MCP | CT RCP

Relinquished by	Date	Time	Received by	Date	Time
[signature]	6/18/20	1210	Pierre	6/12/1	12.10
Pierre	4/18/20	1425			
			[signature]	6/18/20	1437

EDD Required? Yes / No

If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes / No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other 4

Temperature upon receipt 2.0 °C

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The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0919

INM

Environmental Analysis F[illegible]dy

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Acct. # _____

COC #594049

Client Information

Client: Evergreen C/O Stantec	Acct. #: 16657
Project Name/#: PHC Penrose Drilling Sampling	PWSID #:
Project Manager: Andrew Klingbeil	P.O. #: 213402602
Sampler: Dane Hopkins	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Soil ☒ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: Trip Blank

Analysis Requested — Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil ☒ Sediment	Water	Other: Trip Blank	Total # of Containers	Custom TPH w/ Ranges	TPH-GRO 8260/moisture	Metals 6010/Lead (dissolved 6020 total 6010B)	Sulfide	Chloride, Nitrate Nitrogen, Sulfate	Volatile Headspace Hydrocarbon	Total Alkalinity to 4.5	Ammonia Nitrogen	* Short List VOCs 8260 including TBA 8260+EDB 8011	* Short List SVOCs 8270
CD-10-S-3.0-20200622	6/22/20	1430	X		X			6	X	X	(X)						X	X
CD-10-S-38.0-20200623	6/23/20	1220	X		X			6	X	X	(X)						X	X
CD-10-W-38.0-20200623	6/23/20	1445	X			X		17	X	X	X	X	X	X	X	X	X	X
(OH) ~~[illegible]~~ TB-20200623	6/11/20	—					X	2									X	

Remarks: *refer to Evergreen Petroleum Short List for list of analytes

(X) = dissolved lead 6020 only

For Lab Use Only
FSC: _____
SCR#: _____

Preservation Codes
H=HCl, T=Thiosulfate, N=HNO_3, B=NaOH, S=H_2SO_4, P=H_3PO_4, F=Field Filtered, O=Other

Turnaround Time (TAT) Requested (please circle)
Standard (circled) Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: andrew.klingbeil@stantec.com

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)
Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13
NYSDEC Category A or B | MA MCP | CT RCP

Relinquished by	Date	Time	Received by	Date	Time
[signature]	6/24/20	1140	[signature]	6/24/20	11:40
[signature]	6/24/20	1535			
			W Mathews	6/24/20	1615

EDD Required? Yes (circled) No
If yes, format: EQUIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____

Temperature upon receipt 4.3 °C

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7044 0718

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-14623-1

Login Number: 14623

List Source: Eurofins Lancaster Laboratories Env

List Number: 1

Creator: Phillips, Ann-Marie E

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.		
The cooler's custody seal is intact.		
The cooler or samples do not appear to have been compromised or tampered with.		
Samples were received on ice.		
Cooler Temperature is acceptable (</=6C, not frozen).		
Cooler Temperature is recorded.		
WV: Container Temperature is acceptable (</=6C, not frozen).		
WV: Container Temperature is recorded.		
COC is present.		
COC is filled out in ink and legible.		
COC is filled out with all pertinent information.		
There are no discrepancies between the containers received and the COC.		
Samples are received within Holding Time (excluding tests with immediate HTs)		
Sample containers have legible labels.		
Containers are not broken or leaking.		
Sample collection date/times are provided.		
Appropriate sample containers are used.		
Sample bottles are completely filled.		
There is sufficient vol. for all requested analyses.		
Multiphasic samples are not present.		
Samples do not require splitting or compositing.		
Is the Field Sampler's name present on COC?		
Sample Preservation Verified.		
Residual Chlorine Checked.		
Sample custody seals are intact.		

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-35275-1
Client Project/Site: Former PES Lead Delineation

For:
Stantec Consulting Services Inc
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Jenny Kachel

Authorized for release by:
4/22/2021 1:07:44 AM

Amek Carter, Project Manager
(717)556-7252
Loran.Carter@eurofinset.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
4/22/2021 1:07:44 AM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 6
Client Sample Results 8
QC Sample Results 15
QC Association Summary 17
Lab Chronicle 20
Certification Summary 28
Method Summary 29
Sample Summary 30
Chain of Custody 31
Receipt Checklists 34

Client: Stantec Consulting Services Inc
Job ID: 410-35275-1
Project/Site: Former PES Lead Delineation

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-35275-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-35275-1

Receipt
The samples were received on 4/8/2021 6:08 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.4°C

Receipt Exceptions
The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): AOI5-BH-21-01-0-2-20210407 (410-35275-9). The container labels list AO15-BH-21-01-20210407, while the COC lists AO15-BH-21-01-0-2-20210407.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Stantec Consulting Services Inc
Project/Site: Former PES Lead Delineation

Job ID: 410-35275-1

Client Sample ID: AOI8-BH-21-06-0-2-20210407 — Lab Sample ID: 410-35275-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	10		1.9	0.76	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: AOI8-BH-21-05-0-2-20210407 — Lab Sample ID: 410-35275-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	250		1.5	0.59	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: AOI8-BH-21-03-0-2-20210407 — Lab Sample ID: 410-35275-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	1600		1.6	0.65	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: AOI8-BH-21-04-0-2-20210407 — Lab Sample ID: 410-35275-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	390		1.4	0.57	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: AOI8-BH-21-02-0-2-20210407 — Lab Sample ID: 410-35275-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	400		1.3	0.50	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: AOI8-BH-21-01-0-2-20210407 — Lab Sample ID: 410-35275-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	470		1.5	0.61	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: AOI1-BH-21-01-0-0.25-20210407 — Lab Sample ID: 410-35275-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	430		1.8	0.71	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: AOI5-BH-21-01-0-2-20210407 — Lab Sample ID: 410-35275-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	130		1.9	0.74	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: AOI5-BH-21-02-0-2-20210407 — Lab Sample ID: 410-35275-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	880	F2	1.2	0.48	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: AOI4-BH-21-01-0-2-20210407 — Lab Sample ID: 410-35275-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	250		1.6	0.64	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: AOI6-BH-21-01-0-2-20210407 — Lab Sample ID: 410-35275-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	360		2.0	0.79	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: AOI10-BH-21-03-0-2-20210408 — Lab Sample ID: 410-35275-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	640		1.3	0.51	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Detection Summary

Client: Stantec Consulting Services Inc
Project/Site: Former PES Lead Delineation

Job ID: 410-35275-1

Client Sample ID: AOI10-BH-21-02-0-2-20210408 — Lab Sample ID: 410-35275-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	120		1.4	0.57	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: AOI10-BH-21-01-0-2-20210408 — Lab Sample ID: 410-35275-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	600		1.7	0.67	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: AOI9-BH-21-08-0-2-20210408 — Lab Sample ID: 410-35275-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	960		1.3	0.52	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: AOI9-BH-21-07-0-2-20210408 — Lab Sample ID: 410-35275-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	710		1.7	0.68	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: AOI9-BH-21-06-0-2-20210408 — Lab Sample ID: 410-35275-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	1800		1.8	0.71	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: AOI9-BH-21-05-0-2-20210408 — Lab Sample ID: 410-35275-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	2800		9.2	3.7	mg/Kg	5	☼	6010C	Total/NA

Client Sample ID: AOI9-BH-21-09-0-2-20210408 — Lab Sample ID: 410-35275-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	160		1.7	0.68	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: AOI9-BH-21-02-0-2-20210408 — Lab Sample ID: 410-35275-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	350		1.2	0.46	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: AOI9-BH-21-01-0-2-20210408 — Lab Sample ID: 410-35275-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	910		1.6	0.66	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: AOI9-BH-21-04-0-2-20210408 — Lab Sample ID: 410-35275-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	1400		1.7	0.70	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: AOI9-BH-21-03-0-2-20210408 — Lab Sample ID: 410-35275-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	1700		1.6	0.64	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: FB-20210408 — Lab Sample ID: 410-35275-25

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample ID: AOI8-BH-21-06-0-2-20210407
Lab Sample ID: 410-35275-1
Date Collected: 04/07/21 09:30
Matrix: Solid
Date Received: 04/08/21 18:08

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	37.5		1.0	1.0	%			04/13/21 07:51	1

Client Sample ID: AOI8-BH-21-06-0-2-20210407
Lab Sample ID: 410-35275-1
Date Collected: 04/07/21 09:30
Matrix: Solid
Date Received: 04/08/21 18:08
Percent Solids: 62.4

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	10		1.9	0.76	mg/Kg	☼	04/13/21 13:56	04/17/21 08:17	1

Client Sample ID: AOI8-BH-21-05-0-2-20210407
Lab Sample ID: 410-35275-2
Date Collected: 04/07/21 09:50
Matrix: Solid
Date Received: 04/08/21 18:08

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18.1		1.0	1.0	%			04/13/21 07:51	1

Client Sample ID: AOI8-BH-21-05-0-2-20210407
Lab Sample ID: 410-35275-2
Date Collected: 04/07/21 09:50
Matrix: Solid
Date Received: 04/08/21 18:08
Percent Solids: 81.9

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	250		1.5	0.59	mg/Kg	☼	04/13/21 13:56	04/17/21 08:09	1

Client Sample ID: AOI8-BH-21-03-0-2-20210407
Lab Sample ID: 410-35275-3
Date Collected: 04/07/21 11:15
Matrix: Solid
Date Received: 04/08/21 18:08

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.4		1.0	1.0	%			04/13/21 07:51	1

Client Sample ID: AOI8-BH-21-03-0-2-20210407
Lab Sample ID: 410-35275-3
Date Collected: 04/07/21 11:15
Matrix: Solid
Date Received: 04/08/21 18:08
Percent Solids: 86.6

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1600		1.6	0.65	mg/Kg	☼	04/13/21 13:46	04/15/21 21:46	1

Client Sample ID: AOI8-BH-21-04-0-2-20210407
Lab Sample ID: 410-35275-4
Date Collected: 04/07/21 11:30
Matrix: Solid
Date Received: 04/08/21 18:08

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14.5		1.0	1.0	%			04/13/21 07:51	1

Client Sample ID: AOI8-BH-21-04-0-2-20210407
Lab Sample ID: 410-35275-4
Date Collected: 04/07/21 11:30
Matrix: Solid
Date Received: 04/08/21 18:08
Percent Solids: 85.5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	390		1.4	0.57	mg/Kg	☼	04/13/21 13:46	04/15/21 21:56	1

Client Sample ID: AOI8-BH-21-02-0-2-20210407
Lab Sample ID: 410-35275-5
Date Collected: 04/07/21 11:45
Matrix: Solid
Date Received: 04/08/21 18:08

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.2		1.0	1.0	%			04/13/21 07:51	1

Client Sample ID: AOI8-BH-21-02-0-2-20210407
Lab Sample ID: 410-35275-5
Date Collected: 04/07/21 11:45
Matrix: Solid
Date Received: 04/08/21 18:08
Percent Solids: 88.8

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	400		1.3	0.50	mg/Kg	☼	04/13/21 13:46	04/15/21 21:59	1

Client Sample ID: AOI8-BH-21-01-0-2-20210407
Lab Sample ID: 410-35275-6
Date Collected: 04/07/21 12:00
Matrix: Solid
Date Received: 04/08/21 18:08

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.5		1.0	1.0	%			04/13/21 07:51	1

Client Sample ID: AOI8-BH-21-01-0-2-20210407
Lab Sample ID: 410-35275-6
Date Collected: 04/07/21 12:00
Matrix: Solid
Date Received: 04/08/21 18:08
Percent Solids: 86.5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	470		1.5	0.61	mg/Kg	☼	04/13/21 13:56	04/17/21 08:13	1

Client Sample ID: AOI1-BH-21-01-0-0.25-20210407
Lab Sample ID: 410-35275-8
Date Collected: 04/07/21 13:00
Matrix: Solid
Date Received: 04/08/21 18:08

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20.2		1.0	1.0	%			04/13/21 07:51	1

Client Sample ID: AOI1-BH-21-01-0-0.25-20210407
Lab Sample ID: 410-35275-8
Date Collected: 04/07/21 13:00
Matrix: Solid
Date Received: 04/08/21 18:08
Percent Solids: 79.8

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	430		1.8	0.71	mg/Kg	☼	04/13/21 13:46	04/15/21 21:40	1

Client Sample ID: AOI5-BH-21-01-0-2-20210407 — **Lab Sample ID: 410-35275-9**
Date Collected: 04/07/21 13:20 — **Matrix: Solid**
Date Received: 04/08/21 18:08

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23.6		1.0	1.0	%			04/13/21 07:51	1

Client Sample ID: AOI5-BH-21-01-0-2-20210407 — **Lab Sample ID: 410-35275-9**
Date Collected: 04/07/21 13:20 — **Matrix: Solid**
Date Received: 04/08/21 18:08 — **Percent Solids: 76.4**

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	130		1.9	0.74	mg/Kg	☼	04/13/21 13:46	04/15/21 21:43	1

Client Sample ID: AOI5-BH-21-02-0-2-20210407 — **Lab Sample ID: 410-35275-10**
Date Collected: 04/07/21 13:35 — **Matrix: Solid**
Date Received: 04/08/21 18:08

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.0		1.0	1.0	%			04/13/21 07:51	1

Client Sample ID: AOI5-BH-21-02-0-2-20210407 — **Lab Sample ID: 410-35275-10**
Date Collected: 04/07/21 13:35 — **Matrix: Solid**
Date Received: 04/08/21 18:08 — **Percent Solids: 89.0**

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	880	F2	1.2	0.48	mg/Kg	☼	04/13/21 13:46	04/15/21 20:26	1

Client Sample ID: AOI4-BH-21-01-0-2-20210407 — **Lab Sample ID: 410-35275-11**
Date Collected: 04/07/21 14:30 — **Matrix: Solid**
Date Received: 04/08/21 18:08

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.1		1.0	1.0	%			04/13/21 07:51	1

Client Sample ID: AOI4-BH-21-01-0-2-20210407 — **Lab Sample ID: 410-35275-11**
Date Collected: 04/07/21 14:30 — **Matrix: Solid**
Date Received: 04/08/21 18:08 — **Percent Solids: 89.9**

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	250		1.6	0.64	mg/Kg	☼	04/13/21 13:46	04/15/21 21:27	1

Client Sample ID: AOI6-BH-21-01-0-2-20210407 — **Lab Sample ID: 410-35275-12**
Date Collected: 04/07/21 15:10 — **Matrix: Solid**
Date Received: 04/08/21 18:08

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	31.7		1.0	1.0	%			04/13/21 07:51	1

Client Sample ID: AOI6-BH-21-01-0-2-20210407 — **Lab Sample ID: 410-35275-12**
Date Collected: 04/07/21 15:10 — Matrix: Solid
Date Received: 04/08/21 18:08 — Percent Solids: 68.3

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	360		2.0	0.79	mg/Kg	☼	04/13/21 13:46	04/15/21 21:30	1

Client Sample ID: AOI10-BH-21-03-0-2-20210408 — **Lab Sample ID: 410-35275-13**
Date Collected: 04/08/21 10:20 — Matrix: Solid
Date Received: 04/08/21 18:08

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19.6		1.0	1.0	%			04/13/21 07:51	1

Client Sample ID: AOI10-BH-21-03-0-2-20210408 — **Lab Sample ID: 410-35275-13**
Date Collected: 04/08/21 10:20 — Matrix: Solid
Date Received: 04/08/21 18:08 — Percent Solids: 80.4

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	640		1.3	0.51	mg/Kg	☼	04/13/21 13:46	04/15/21 21:06	1

Client Sample ID: AOI10-BH-21-02-0-2-20210408 — **Lab Sample ID: 410-35275-14**
Date Collected: 04/08/21 10:30 — Matrix: Solid
Date Received: 04/08/21 18:08

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.8		1.0	1.0	%			04/13/21 07:51	1

Client Sample ID: AOI10-BH-21-02-0-2-20210408 — **Lab Sample ID: 410-35275-14**
Date Collected: 04/08/21 10:30 — Matrix: Solid
Date Received: 04/08/21 18:08 — Percent Solids: 83.2

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	120		1.4	0.57	mg/Kg	☼	04/13/21 13:46	04/15/21 21:10	1

Client Sample ID: AOI10-BH-21-01-0-2-20210408 — **Lab Sample ID: 410-35275-15**
Date Collected: 04/08/21 10:45 — Matrix: Solid
Date Received: 04/08/21 18:08

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.1		1.0	1.0	%			04/13/21 07:51	1

Client Sample ID: AOI10-BH-21-01-0-2-20210408 — **Lab Sample ID: 410-35275-15**
Date Collected: 04/08/21 10:45 — Matrix: Solid
Date Received: 04/08/21 18:08 — Percent Solids: 82.9

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	600		1.7	0.67	mg/Kg	☼	04/13/21 13:46	04/15/21 21:13	1

Client Sample ID: AOI9-BH-21-08-0-2-20210408
Lab Sample ID: 410-35275-16
Date Collected: 04/08/21 11:15
Matrix: Solid
Date Received: 04/08/21 18:08

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18.9		1.0	1.0	%			04/13/21 09:10	1

Client Sample ID: AOI9-BH-21-08-0-2-20210408
Lab Sample ID: 410-35275-16
Date Collected: 04/08/21 11:15
Matrix: Solid
Date Received: 04/08/21 18:08
Percent Solids: 81.1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	960		1.3	0.52	mg/Kg	☼	04/13/21 13:46	04/15/21 21:16	1

Client Sample ID: AOI9-BH-21-07-0-2-20210408
Lab Sample ID: 410-35275-17
Date Collected: 04/08/21 11:20
Matrix: Solid
Date Received: 04/08/21 18:08

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.7		1.0	1.0	%			04/13/21 09:10	1

Client Sample ID: AOI9-BH-21-07-0-2-20210408
Lab Sample ID: 410-35275-17
Date Collected: 04/08/21 11:20
Matrix: Solid
Date Received: 04/08/21 18:08
Percent Solids: 84.3

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	710		1.7	0.68	mg/Kg	☼	04/13/21 13:46	04/15/21 21:03	1

Client Sample ID: AOI9-BH-21-06-0-2-20210408
Lab Sample ID: 410-35275-18
Date Collected: 04/08/21 12:00
Matrix: Solid
Date Received: 04/08/21 18:08

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	25.8		1.0	1.0	%			04/13/21 09:10	1

Client Sample ID: AOI9-BH-21-06-0-2-20210408
Lab Sample ID: 410-35275-18
Date Collected: 04/08/21 12:00
Matrix: Solid
Date Received: 04/08/21 18:08
Percent Solids: 74.2

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1800		1.8	0.71	mg/Kg	☼	04/13/21 13:46	04/15/21 20:59	1

Client Sample ID: AOI9-BH-21-05-0-2-20210408
Lab Sample ID: 410-35275-19
Date Collected: 04/08/21 12:10
Matrix: Solid
Date Received: 04/08/21 18:08

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	26.1		1.0	1.0	%			04/13/21 09:10	1

Client Sample ID: AOI9-BH-21-05-0-2-20210408
Lab Sample ID: 410-35275-19

Date Collected: 04/08/21 12:10
Matrix: Solid
Date Received: 04/08/21 18:08
Percent Solids: 73.9

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	2800		9.2	3.7	mg/Kg	☼	04/13/21 13:46	04/15/21 22:03	5

Client Sample ID: AOI9-BH-21-09-0-2-20210408
Lab Sample ID: 410-35275-20

Date Collected: 04/08/21 12:20
Matrix: Solid
Date Received: 04/08/21 18:08

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	32.2		1.0	1.0	%			04/13/21 09:10	1

Client Sample ID: AOI9-BH-21-09-0-2-20210408
Lab Sample ID: 410-35275-20

Date Collected: 04/08/21 12:20
Matrix: Solid
Date Received: 04/08/21 18:08
Percent Solids: 67.8

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	160		1.7	0.68	mg/Kg	☼	04/13/21 13:46	04/15/21 20:47	1

Client Sample ID: AOI9-BH-21-02-0-2-20210408
Lab Sample ID: 410-35275-21

Date Collected: 04/08/21 12:45
Matrix: Solid
Date Received: 04/08/21 18:08

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12.0		1.0	1.0	%			04/13/21 09:10	1

Client Sample ID: AOI9-BH-21-02-0-2-20210408
Lab Sample ID: 410-35275-21

Date Collected: 04/08/21 12:45
Matrix: Solid
Date Received: 04/08/21 18:08
Percent Solids: 88.0

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	350		1.2	0.46	mg/Kg	☼	04/13/21 13:46	04/15/21 21:20	1

Client Sample ID: AOI9-BH-21-01-0-2-20210408
Lab Sample ID: 410-35275-22

Date Collected: 04/08/21 12:55
Matrix: Solid
Date Received: 04/08/21 18:08

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	21.9		1.0	1.0	%			04/13/21 09:10	1

Client Sample ID: AOI9-BH-21-01-0-2-20210408
Lab Sample ID: 410-35275-22

Date Collected: 04/08/21 12:55
Matrix: Solid
Date Received: 04/08/21 18:08
Percent Solids: 78.1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	910		1.6	0.66	mg/Kg	☼	04/13/21 13:46	04/15/21 21:23	1

Client Sample ID: AOI9-BH-21-04-0-2-20210408 — **Lab Sample ID: 410-35275-23**
Date Collected: 04/08/21 13:10 — **Matrix: Solid**
Date Received: 04/08/21 18:08

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	21.3		1.0	1.0	%			04/13/21 09:10	1

Client Sample ID: AOI9-BH-21-04-0-2-20210408 — **Lab Sample ID: 410-35275-23**
Date Collected: 04/08/21 13:10 — **Matrix: Solid**
Date Received: 04/08/21 18:08 — **Percent Solids: 78.7**

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1400		1.7	0.70	mg/Kg	☼	04/13/21 13:46	04/15/21 21:49	1

Client Sample ID: AOI9-BH-21-03-0-2-20210408 — **Lab Sample ID: 410-35275-24**
Date Collected: 04/08/21 13:15 — **Matrix: Solid**
Date Received: 04/08/21 18:08

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	21.0		1.0	1.0	%			04/13/21 09:10	1

Client Sample ID: AOI9-BH-21-03-0-2-20210408 — **Lab Sample ID: 410-35275-24**
Date Collected: 04/08/21 13:15 — **Matrix: Solid**
Date Received: 04/08/21 18:08 — **Percent Solids: 79.0**

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1700		1.6	0.64	mg/Kg	☼	04/13/21 13:46	04/15/21 21:53	1

Client Sample ID: FB-20210408 — **Lab Sample ID: 410-35275-25**
Date Collected: 04/08/21 13:45 — **Matrix: Water**
Date Received: 04/08/21 18:08

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.015	0.0071	mg/L		04/12/21 19:17	04/18/21 16:28	1

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-113949/1-A
Matrix: Solid
Analysis Batch: 115355

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 113949

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5	0.60	mg/Kg		04/13/21 13:46	04/15/21 20:13	1

Lab Sample ID: LCS 410-113949/2-A
Matrix: Solid
Analysis Batch: 115355

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 113949

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	5.01	5.20		mg/Kg		104	80 - 120

Lab Sample ID: 410-35275-10 MS
Matrix: Solid
Analysis Batch: 115355

Client Sample ID: AOI5-BH-21-02-0-2-20210407
Prep Type: Total/NA
Prep Batch: 113949

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	880	F2	4.94	953	4	mg/Kg	☼	1533	75 - 125

Lab Sample ID: 410-35275-10 MSD
Matrix: Solid
Analysis Batch: 115355

Client Sample ID: AOI5-BH-21-02-0-2-20210407
Prep Type: Total/NA
Prep Batch: 113949

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	880	F2	4.14	636	4 F2	mg/Kg	☼	-5843	75 - 125	40	20

Lab Sample ID: 410-35275-10 DU
Matrix: Solid
Analysis Batch: 115355

Client Sample ID: AOI5-BH-21-02-0-2-20210407
Prep Type: Total/NA
Prep Batch: 113949

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	880	F2	945		mg/Kg	☼	7	20

Lab Sample ID: MB 410-113952/1-A
Matrix: Solid
Analysis Batch: 115853

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 113952

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5	0.60	mg/Kg		04/13/21 13:56	04/17/21 07:08	1

Lab Sample ID: LCS 410-113952/2-A
Matrix: Solid
Analysis Batch: 115853

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 113952

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	5.01	5.18		mg/Kg		103	80 - 120

Lab Sample ID: MB 410-113565/1-A
Matrix: Water
Analysis Batch: 116015

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 113565

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.015	0.0071	mg/L		04/12/21 19:17	04/18/21 15:24	1

Client: Stantec Consulting Services Inc
Project/Site: Former PES Lead Delineation

Job ID: 410-35275-1

Method: 6010C - Metals (ICP)

Lab Sample ID: LCS 410-113565/2-A
Matrix: Water
Analysis Batch: 116015

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 113565

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			0.0501	0.0463		mg/L		92	80 - 120		

Metals

Prep Batch: 113565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-35275-25	FB-20210408	Total Recoverable	Water	3005A	
MB 410-113565/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-113565/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 113949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-35275-3	AOI8-BH-21-03-0-2-20210407	Total/NA	Solid	3050B	
410-35275-4	AOI8-BH-21-04-0-2-20210407	Total/NA	Solid	3050B	
410-35275-5	AOI8-BH-21-02-0-2-20210407	Total/NA	Solid	3050B	
410-35275-8	AOI1-BH-21-01-0-0.25-20210407	Total/NA	Solid	3050B	
410-35275-9	AOI5-BH-21-01-0-2-20210407	Total/NA	Solid	3050B	
410-35275-10	AOI5-BH-21-02-0-2-20210407	Total/NA	Solid	3050B	
410-35275-11	AOI4-BH-21-01-0-2-20210407	Total/NA	Solid	3050B	
410-35275-12	AOI6-BH-21-01-0-2-20210407	Total/NA	Solid	3050B	
410-35275-13	AOI10-BH-21-03-0-2-20210408	Total/NA	Solid	3050B	
410-35275-14	AOI10-BH-21-02-0-2-20210408	Total/NA	Solid	3050B	
410-35275-15	AOI10-BH-21-01-0-2-20210408	Total/NA	Solid	3050B	
410-35275-16	AOI9-BH-21-08-0-2-20210408	Total/NA	Solid	3050B	
410-35275-17	AOI9-BH-21-07-0-2-20210408	Total/NA	Solid	3050B	
410-35275-18	AOI9-BH-21-06-0-2-20210408	Total/NA	Solid	3050B	
410-35275-19	AOI9-BH-21-05-0-2-20210408	Total/NA	Solid	3050B	
410-35275-20	AOI9-BH-21-09-0-2-20210408	Total/NA	Solid	3050B	
410-35275-21	AOI9-BH-21-02-0-2-20210408	Total/NA	Solid	3050B	
410-35275-22	AOI9-BH-21-01-0-2-20210408	Total/NA	Solid	3050B	
410-35275-23	AOI9-BH-21-04-0-2-20210408	Total/NA	Solid	3050B	
410-35275-24	AOI9-BH-21-03-0-2-20210408	Total/NA	Solid	3050B	
MB 410-113949/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 410-113949/2-A	Lab Control Sample	Total/NA	Solid	3050B	
410-35275-10 MS	AOI5-BH-21-02-0-2-20210407	Total/NA	Solid	3050B	
410-35275-10 MSD	AOI5-BH-21-02-0-2-20210407	Total/NA	Solid	3050B	
410-35275-10 DU	AOI5-BH-21-02-0-2-20210407	Total/NA	Solid	3050B	

Prep Batch: 113952

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-35275-1	AOI8-BH-21-06-0-2-20210407	Total/NA	Solid	3050B	
410-35275-2	AOI8-BH-21-05-0-2-20210407	Total/NA	Solid	3050B	
410-35275-6	AOI8-BH-21-01-0-2-20210407	Total/NA	Solid	3050B	
MB 410-113952/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 410-113952/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 115355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-35275-3	AOI8-BH-21-03-0-2-20210407	Total/NA	Solid	6010C	113949
410-35275-4	AOI8-BH-21-04-0-2-20210407	Total/NA	Solid	6010C	113949
410-35275-5	AOI8-BH-21-02-0-2-20210407	Total/NA	Solid	6010C	113949
410-35275-8	AOI1-BH-21-01-0-0.25-20210407	Total/NA	Solid	6010C	113949
410-35275-9	AOI5-BH-21-01-0-2-20210407	Total/NA	Solid	6010C	113949
410-35275-10	AOI5-BH-21-02-0-2-20210407	Total/NA	Solid	6010C	113949
410-35275-11	AOI4-BH-21-01-0-2-20210407	Total/NA	Solid	6010C	113949
410-35275-12	AOI6-BH-21-01-0-2-20210407	Total/NA	Solid	6010C	113949
410-35275-13	AOI10-BH-21-03-0-2-20210408	Total/NA	Solid	6010C	113949

Metals (Continued)

Analysis Batch: 115355 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-35275-14	AOI10-BH-21-02-0-2-20210408	Total/NA	Solid	6010C	113949
410-35275-15	AOI10-BH-21-01-0-2-20210408	Total/NA	Solid	6010C	113949
410-35275-16	AOI9-BH-21-08-0-2-20210408	Total/NA	Solid	6010C	113949
410-35275-17	AOI9-BH-21-07-0-2-20210408	Total/NA	Solid	6010C	113949
410-35275-18	AOI9-BH-21-06-0-2-20210408	Total/NA	Solid	6010C	113949
410-35275-19	AOI9-BH-21-05-0-2-20210408	Total/NA	Solid	6010C	113949
410-35275-20	AOI9-BH-21-09-0-2-20210408	Total/NA	Solid	6010C	113949
410-35275-21	AOI9-BH-21-02-0-2-20210408	Total/NA	Solid	6010C	113949
410-35275-22	AOI9-BH-21-01-0-2-20210408	Total/NA	Solid	6010C	113949
410-35275-23	AOI9-BH-21-04-0-2-20210408	Total/NA	Solid	6010C	113949
410-35275-24	AOI9-BH-21-03-0-2-20210408	Total/NA	Solid	6010C	113949
MB 410-113949/1-A	Method Blank	Total/NA	Solid	6010C	113949
LCS 410-113949/2-A	Lab Control Sample	Total/NA	Solid	6010C	113949
410-35275-10 MS	AOI5-BH-21-02-0-2-20210407	Total/NA	Solid	6010C	113949
410-35275-10 MSD	AOI5-BH-21-02-0-2-20210407	Total/NA	Solid	6010C	113949
410-35275-10 DU	AOI5-BH-21-02-0-2-20210407	Total/NA	Solid	6010C	113949

Analysis Batch: 115853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-35275-1	AOI8-BH-21-06-0-2-20210407	Total/NA	Solid	6010C	113952
410-35275-2	AOI8-BH-21-05-0-2-20210407	Total/NA	Solid	6010C	113952
410-35275-6	AOI8-BH-21-01-0-2-20210407	Total/NA	Solid	6010C	113952
MB 410-113952/1-A	Method Blank	Total/NA	Solid	6010C	113952
LCS 410-113952/2-A	Lab Control Sample	Total/NA	Solid	6010C	113952

Analysis Batch: 116015

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-35275-25	FB-20210408	Total Recoverable	Water	6010C	113565
MB 410-113565/1-A	Method Blank	Total Recoverable	Water	6010C	113565
LCS 410-113565/2-A	Lab Control Sample	Total Recoverable	Water	6010C	113565

General Chemistry

Analysis Batch: 113728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-35275-1	AOI8-BH-21-06-0-2-20210407	Total/NA	Solid	Moisture	
410-35275-2	AOI8-BH-21-05-0-2-20210407	Total/NA	Solid	Moisture	
410-35275-3	AOI8-BH-21-03-0-2-20210407	Total/NA	Solid	Moisture	
410-35275-4	AOI8-BH-21-04-0-2-20210407	Total/NA	Solid	Moisture	
410-35275-5	AOI8-BH-21-02-0-2-20210407	Total/NA	Solid	Moisture	
410-35275-6	AOI8-BH-21-01-0-2-20210407	Total/NA	Solid	Moisture	
410-35275-8	AOI1-BH-21-01-0-0.25-20210407	Total/NA	Solid	Moisture	
410-35275-9	AOI5-BH-21-01-0-2-20210407	Total/NA	Solid	Moisture	
410-35275-10	AOI5-BH-21-02-0-2-20210407	Total/NA	Solid	Moisture	
410-35275-11	AOI4-BH-21-01-0-2-20210407	Total/NA	Solid	Moisture	
410-35275-12	AOI6-BH-21-01-0-2-20210407	Total/NA	Solid	Moisture	
410-35275-13	AOI10-BH-21-03-0-2-20210408	Total/NA	Solid	Moisture	
410-35275-14	AOI10-BH-21-02-0-2-20210408	Total/NA	Solid	Moisture	
410-35275-15	AOI10-BH-21-01-0-2-20210408	Total/NA	Solid	Moisture	

Client: Stantec Consulting Services Inc
Job ID: 410-35275-1
Project/Site: Former PES Lead Delineation

General Chemistry

Analysis Batch: 113804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-35275-16	AOI9-BH-21-08-0-2-20210408	Total/NA	Solid	Moisture	
410-35275-17	AOI9-BH-21-07-0-2-20210408	Total/NA	Solid	Moisture	
410-35275-18	AOI9-BH-21-06-0-2-20210408	Total/NA	Solid	Moisture	
410-35275-19	AOI9-BH-21-05-0-2-20210408	Total/NA	Solid	Moisture	
410-35275-20	AOI9-BH-21-09-0-2-20210408	Total/NA	Solid	Moisture	
410-35275-21	AOI9-BH-21-02-0-2-20210408	Total/NA	Solid	Moisture	
410-35275-22	AOI9-BH-21-01-0-2-20210408	Total/NA	Solid	Moisture	
410-35275-23	AOI9-BH-21-04-0-2-20210408	Total/NA	Solid	Moisture	
410-35275-24	AOI9-BH-21-03-0-2-20210408	Total/NA	Solid	Moisture	

Client Sample ID: AOI8-BH-21-06-0-2-20210407 — **Lab Sample ID: 410-35275-1**
Date Collected: 04/07/21 09:30 — **Matrix: Solid**
Date Received: 04/08/21 18:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	113728	04/13/21 07:51	UVJN	ELLE

Client Sample ID: AOI8-BH-21-06-0-2-20210407 — **Lab Sample ID: 410-35275-1**
Date Collected: 04/07/21 09:30 — **Matrix: Solid**
Date Received: 04/08/21 18:08 — **Percent Solids: 62.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113952	04/13/21 13:56	UJLA	ELLE
Total/NA	Analysis	6010C		1	115853	04/17/21 08:17	ULJC	ELLE

Client Sample ID: AOI8-BH-21-05-0-2-20210407 — **Lab Sample ID: 410-35275-2**
Date Collected: 04/07/21 09:50 — **Matrix: Solid**
Date Received: 04/08/21 18:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	113728	04/13/21 07:51	UVJN	ELLE

Client Sample ID: AOI8-BH-21-05-0-2-20210407 — **Lab Sample ID: 410-35275-2**
Date Collected: 04/07/21 09:50 — **Matrix: Solid**
Date Received: 04/08/21 18:08 — **Percent Solids: 81.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113952	04/13/21 13:56	UJLA	ELLE
Total/NA	Analysis	6010C		1	115853	04/17/21 08:09	ULJC	ELLE

Client Sample ID: AOI8-BH-21-03-0-2-20210407 — **Lab Sample ID: 410-35275-3**
Date Collected: 04/07/21 11:15 — **Matrix: Solid**
Date Received: 04/08/21 18:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	113728	04/13/21 07:51	UVJN	ELLE

Client Sample ID: AOI8-BH-21-03-0-2-20210407 — **Lab Sample ID: 410-35275-3**
Date Collected: 04/07/21 11:15 — **Matrix: Solid**
Date Received: 04/08/21 18:08 — **Percent Solids: 86.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113949	04/13/21 13:46	UJLA	ELLE
Total/NA	Analysis	6010C		1	115355	04/15/21 21:46	UCIG	ELLE

Client Sample ID: AOI8-BH-21-04-0-2-20210407 — **Lab Sample ID: 410-35275-4**
Date Collected: 04/07/21 11:30 — **Matrix: Solid**
Date Received: 04/08/21 18:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	113728	04/13/21 07:51	UVJN	ELLE

Client Sample ID: AOI8-BH-21-04-0-2-20210407 — **Lab Sample ID: 410-35275-4**
Date Collected: 04/07/21 11:30 — **Matrix: Solid**
Date Received: 04/08/21 18:08 — **Percent Solids: 85.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113949	04/13/21 13:46	UJLA	ELLE
Total/NA	Analysis	6010C		1	115355	04/15/21 21:56	UCIG	ELLE

Client Sample ID: AOI8-BH-21-02-0-2-20210407 — **Lab Sample ID: 410-35275-5**
Date Collected: 04/07/21 11:45 — **Matrix: Solid**
Date Received: 04/08/21 18:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	113728	04/13/21 07:51	UVJN	ELLE

Client Sample ID: AOI8-BH-21-02-0-2-20210407 — **Lab Sample ID: 410-35275-5**
Date Collected: 04/07/21 11:45 — **Matrix: Solid**
Date Received: 04/08/21 18:08 — **Percent Solids: 88.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113949	04/13/21 13:46	UJLA	ELLE
Total/NA	Analysis	6010C		1	115355	04/15/21 21:59	UCIG	ELLE

Client Sample ID: AOI8-BH-21-01-0-2-20210407 — **Lab Sample ID: 410-35275-6**
Date Collected: 04/07/21 12:00 — **Matrix: Solid**
Date Received: 04/08/21 18:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	113728	04/13/21 07:51	UVJN	ELLE

Client Sample ID: AOI8-BH-21-01-0-2-20210407 — **Lab Sample ID: 410-35275-6**
Date Collected: 04/07/21 12:00 — **Matrix: Solid**
Date Received: 04/08/21 18:08 — **Percent Solids: 86.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113952	04/13/21 13:56	UJLA	ELLE
Total/NA	Analysis	6010C		1	115853	04/17/21 08:13	ULJC	ELLE

Client Sample ID: AOI1-BH-21-01-0-0.25-20210407 — **Lab Sample ID: 410-35275-8**
Date Collected: 04/07/21 13:00 — **Matrix: Solid**
Date Received: 04/08/21 18:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	113728	04/13/21 07:51	UVJN	ELLE

Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: Former PES Lead Delineation

Job ID: 410-35275-1

Client Sample ID: AOI1-BH-21-01-0-0.25-20210407
Lab Sample ID: 410-35275-8
Date Collected: 04/07/21 13:00
Matrix: Solid
Date Received: 04/08/21 18:08
Percent Solids: 79.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113949	04/13/21 13:46	UJLA	ELLE
Total/NA	Analysis	6010C		1	115355	04/15/21 21:40	UCIG	ELLE

Client Sample ID: AOI5-BH-21-01-0-2-20210407
Lab Sample ID: 410-35275-9
Date Collected: 04/07/21 13:20
Matrix: Solid
Date Received: 04/08/21 18:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	113728	04/13/21 07:51	UVJN	ELLE

Client Sample ID: AOI5-BH-21-01-0-2-20210407
Lab Sample ID: 410-35275-9
Date Collected: 04/07/21 13:20
Matrix: Solid
Date Received: 04/08/21 18:08
Percent Solids: 76.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113949	04/13/21 13:46	UJLA	ELLE
Total/NA	Analysis	6010C		1	115355	04/15/21 21:43	UCIG	ELLE

Client Sample ID: AOI5-BH-21-02-0-2-20210407
Lab Sample ID: 410-35275-10
Date Collected: 04/07/21 13:35
Matrix: Solid
Date Received: 04/08/21 18:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	113728	04/13/21 07:51	UVJN	ELLE

Client Sample ID: AOI5-BH-21-02-0-2-20210407
Lab Sample ID: 410-35275-10
Date Collected: 04/07/21 13:35
Matrix: Solid
Date Received: 04/08/21 18:08
Percent Solids: 89.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113949	04/13/21 13:46	UJLA	ELLE
Total/NA	Analysis	6010C		1	115355	04/15/21 20:26	UCIG	ELLE

Client Sample ID: AOI4-BH-21-01-0-2-20210407
Lab Sample ID: 410-35275-11
Date Collected: 04/07/21 14:30
Matrix: Solid
Date Received: 04/08/21 18:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	113728	04/13/21 07:51	UVJN	ELLE

Client Sample ID: AOI4-BH-21-01-0-2-20210407 — **Lab Sample ID: 410-35275-11**
Date Collected: 04/07/21 14:30 — **Matrix: Solid**
Date Received: 04/08/21 18:08 — **Percent Solids: 89.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113949	04/13/21 13:46	UJLA	ELLE
Total/NA	Analysis	6010C		1	115355	04/15/21 21:27	UCIG	ELLE

Client Sample ID: AOI6-BH-21-01-0-2-20210407 — **Lab Sample ID: 410-35275-12**
Date Collected: 04/07/21 15:10 — **Matrix: Solid**
Date Received: 04/08/21 18:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	113728	04/13/21 07:51	UVJN	ELLE

Client Sample ID: AOI6-BH-21-01-0-2-20210407 — **Lab Sample ID: 410-35275-12**
Date Collected: 04/07/21 15:10 — **Matrix: Solid**
Date Received: 04/08/21 18:08 — **Percent Solids: 68.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113949	04/13/21 13:46	UJLA	ELLE
Total/NA	Analysis	6010C		1	115355	04/15/21 21:30	UCIG	ELLE

Client Sample ID: AOI10-BH-21-03-0-2-20210408 — **Lab Sample ID: 410-35275-13**
Date Collected: 04/08/21 10:20 — **Matrix: Solid**
Date Received: 04/08/21 18:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	113728	04/13/21 07:51	UVJN	ELLE

Client Sample ID: AOI10-BH-21-03-0-2-20210408 — **Lab Sample ID: 410-35275-13**
Date Collected: 04/08/21 10:20 — **Matrix: Solid**
Date Received: 04/08/21 18:08 — **Percent Solids: 80.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113949	04/13/21 13:46	UJLA	ELLE
Total/NA	Analysis	6010C		1	115355	04/15/21 21:06	UCIG	ELLE

Client Sample ID: AOI10-BH-21-02-0-2-20210408 — **Lab Sample ID: 410-35275-14**
Date Collected: 04/08/21 10:30 — **Matrix: Solid**
Date Received: 04/08/21 18:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	113728	04/13/21 07:51	UVJN	ELLE

Client Sample ID: AOI10-BH-21-02-0-2-20210408 — **Lab Sample ID: 410-35275-14**
Date Collected: 04/08/21 10:30 — **Matrix: Solid**
Date Received: 04/08/21 18:08 — **Percent Solids: 83.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113949	04/13/21 13:46	UJLA	ELLE
Total/NA	Analysis	6010C		1	115355	04/15/21 21:10	UCIG	ELLE

Client Sample ID: AOI10-BH-21-01-0-2-20210408 — **Lab Sample ID: 410-35275-15**
Date Collected: 04/08/21 10:45 — **Matrix: Solid**
Date Received: 04/08/21 18:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	113728	04/13/21 07:51	UVJN	ELLE

Client Sample ID: AOI10-BH-21-01-0-2-20210408 — **Lab Sample ID: 410-35275-15**
Date Collected: 04/08/21 10:45 — **Matrix: Solid**
Date Received: 04/08/21 18:08 — **Percent Solids: 82.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113949	04/13/21 13:46	UJLA	ELLE
Total/NA	Analysis	6010C		1	115355	04/15/21 21:13	UCIG	ELLE

Client Sample ID: AOI9-BH-21-08-0-2-20210408 — **Lab Sample ID: 410-35275-16**
Date Collected: 04/08/21 11:15 — **Matrix: Solid**
Date Received: 04/08/21 18:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	113804	04/13/21 09:10	UGCW	ELLE

Client Sample ID: AOI9-BH-21-08-0-2-20210408 — **Lab Sample ID: 410-35275-16**
Date Collected: 04/08/21 11:15 — **Matrix: Solid**
Date Received: 04/08/21 18:08 — **Percent Solids: 81.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113949	04/13/21 13:46	UJLA	ELLE
Total/NA	Analysis	6010C		1	115355	04/15/21 21:16	UCIG	ELLE

Client Sample ID: AOI9-BH-21-07-0-2-20210408 — **Lab Sample ID: 410-35275-17**
Date Collected: 04/08/21 11:20 — **Matrix: Solid**
Date Received: 04/08/21 18:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	113804	04/13/21 09:10	UGCW	ELLE

Client Sample ID: AOI9-BH-21-07-0-2-20210408 — **Lab Sample ID: 410-35275-17**
Date Collected: 04/08/21 11:20 — **Matrix: Solid**
Date Received: 04/08/21 18:08 — **Percent Solids: 84.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113949	04/13/21 13:46	UJLA	ELLE
Total/NA	Analysis	6010C		1	115355	04/15/21 21:03	UCIG	ELLE

Client Sample ID: AOI9-BH-21-06-0-2-20210408 — **Lab Sample ID: 410-35275-18**
Date Collected: 04/08/21 12:00 — **Matrix: Solid**
Date Received: 04/08/21 18:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	113804	04/13/21 09:10	UGCW	ELLE

Client Sample ID: AOI9-BH-21-06-0-2-20210408 — **Lab Sample ID: 410-35275-18**
Date Collected: 04/08/21 12:00 — **Matrix: Solid**
Date Received: 04/08/21 18:08 — **Percent Solids: 74.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113949	04/13/21 13:46	UJLA	ELLE
Total/NA	Analysis	6010C		1	115355	04/15/21 20:59	UCIG	ELLE

Client Sample ID: AOI9-BH-21-05-0-2-20210408 — **Lab Sample ID: 410-35275-19**
Date Collected: 04/08/21 12:10 — **Matrix: Solid**
Date Received: 04/08/21 18:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	113804	04/13/21 09:10	UGCW	ELLE

Client Sample ID: AOI9-BH-21-05-0-2-20210408 — **Lab Sample ID: 410-35275-19**
Date Collected: 04/08/21 12:10 — **Matrix: Solid**
Date Received: 04/08/21 18:08 — **Percent Solids: 73.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113949	04/13/21 13:46	UJLA	ELLE
Total/NA	Analysis	6010C		5	115355	04/15/21 22:03	UCIG	ELLE

Client Sample ID: AOI9-BH-21-09-0-2-20210408 — **Lab Sample ID: 410-35275-20**
Date Collected: 04/08/21 12:20 — **Matrix: Solid**
Date Received: 04/08/21 18:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	113804	04/13/21 09:10	UGCW	ELLE

Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: Former PES Lead Delineation

Job ID: 410-35275-1

Client Sample ID: AOI9-BH-21-09-0-2-20210408 — **Lab Sample ID: 410-35275-20**
Date Collected: 04/08/21 12:20 — **Matrix: Solid**
Date Received: 04/08/21 18:08 — **Percent Solids: 67.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113949	04/13/21 13:46	UJLA	ELLE
Total/NA	Analysis	6010C		1	115355	04/15/21 20:47	UCIG	ELLE

Client Sample ID: AOI9-BH-21-02-0-2-20210408 — **Lab Sample ID: 410-35275-21**
Date Collected: 04/08/21 12:45 — **Matrix: Solid**
Date Received: 04/08/21 18:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	113804	04/13/21 09:10	UGCW	ELLE

Client Sample ID: AOI9-BH-21-02-0-2-20210408 — **Lab Sample ID: 410-35275-21**
Date Collected: 04/08/21 12:45 — **Matrix: Solid**
Date Received: 04/08/21 18:08 — **Percent Solids: 88.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113949	04/13/21 13:46	UJLA	ELLE
Total/NA	Analysis	6010C		1	115355	04/15/21 21:20	UCIG	ELLE

Client Sample ID: AOI9-BH-21-01-0-2-20210408 — **Lab Sample ID: 410-35275-22**
Date Collected: 04/08/21 12:55 — **Matrix: Solid**
Date Received: 04/08/21 18:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	113804	04/13/21 09:10	UGCW	ELLE

Client Sample ID: AOI9-BH-21-01-0-2-20210408 — **Lab Sample ID: 410-35275-22**
Date Collected: 04/08/21 12:55 — **Matrix: Solid**
Date Received: 04/08/21 18:08 — **Percent Solids: 78.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113949	04/13/21 13:46	UJLA	ELLE
Total/NA	Analysis	6010C		1	115355	04/15/21 21:23	UCIG	ELLE

Client Sample ID: AOI9-BH-21-04-0-2-20210408 — **Lab Sample ID: 410-35275-23**
Date Collected: 04/08/21 13:10 — **Matrix: Solid**
Date Received: 04/08/21 18:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	113804	04/13/21 09:10	UGCW	ELLE

Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: Former PES Lead Delineation

Job ID: 410-35275-1

Client Sample ID: AOI9-BH-21-04-0-2-20210408

Lab Sample ID: 410-35275-23

Date Collected: 04/08/21 13:10
Matrix: Solid
Date Received: 04/08/21 18:08
Percent Solids: 78.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113949	04/13/21 13:46	UJLA	ELLE
Total/NA	Analysis	6010C		1	115355	04/15/21 21:49	UCIG	ELLE

Client Sample ID: AOI9-BH-21-03-0-2-20210408

Lab Sample ID: 410-35275-24

Date Collected: 04/08/21 13:15
Matrix: Solid
Date Received: 04/08/21 18:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	113804	04/13/21 09:10	UGCW	ELLE

Client Sample ID: AOI9-BH-21-03-0-2-20210408

Lab Sample ID: 410-35275-24

Date Collected: 04/08/21 13:15
Matrix: Solid
Date Received: 04/08/21 18:08
Percent Solids: 79.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113949	04/13/21 13:46	UJLA	ELLE
Total/NA	Analysis	6010C		1	115355	04/15/21 21:53	UCIG	ELLE

Client Sample ID: FB-20210408

Lab Sample ID: 410-35275-25

Date Collected: 04/08/21 13:45
Matrix: Water
Date Received: 04/08/21 18:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			113565	04/12/21 19:17	JJT8	ELLE
Total Recoverable	Analysis	6010C		1	116015	04/18/21 16:28	WJM9	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Services Inc
Job ID: 410-35275-1
Project/Site: Former PES Lead Delineation

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture

Method Summary

Client: Stantec Consulting Services Inc
Job ID: 410-35275-1
Project/Site: Former PES Lead Delineation

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	ELLE
Moisture	Percent Moisture	EPA	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
3050B	Preparation, Metals	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Services Inc
Project/Site: Former PES Lead Delineation

Job ID: 410-35275-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-35275-1	AOI8-BH-21-06-0-2-20210407	Solid	04/07/21 09:30	04/08/21 18:08	
410-35275-2	AOI8-BH-21-05-0-2-20210407	Solid	04/07/21 09:50	04/08/21 18:08	
410-35275-3	AOI8-BH-21-03-0-2-20210407	Solid	04/07/21 11:15	04/08/21 18:08	
410-35275-4	AOI8-BH-21-04-0-2-20210407	Solid	04/07/21 11:30	04/08/21 18:08	
410-35275-5	AOI8-BH-21-02-0-2-20210407	Solid	04/07/21 11:45	04/08/21 18:08	
410-35275-6	AOI8-BH-21-01-0-2-20210407	Solid	04/07/21 12:00	04/08/21 18:08	
410-35275-8	AOI1-BH-21-01-0-0.25-20210407	Solid	04/07/21 13:00	04/08/21 18:08	
410-35275-9	AOI5-BH-21-01-0-2-20210407	Solid	04/07/21 13:20	04/08/21 18:08	
410-35275-10	AOI5-BH-21-02-0-2-20210407	Solid	04/07/21 13:35	04/08/21 18:08	
410-35275-11	AOI4-BH-21-01-0-2-20210407	Solid	04/07/21 14:30	04/08/21 18:08	
410-35275-12	AOI6-BH-21-01-0-2-20210407	Solid	04/07/21 15:10	04/08/21 18:08	
410-35275-13	AOI10-BH-21-03-0-2-20210408	Solid	04/08/21 10:20	04/08/21 18:08	
410-35275-14	AOI10-BH-21-02-0-2-20210408	Solid	04/08/21 10:30	04/08/21 18:08	
410-35275-15	AOI10-BH-21-01-0-2-20210408	Solid	04/08/21 10:45	04/08/21 18:08	
410-35275-16	AOI9-BH-21-08-0-2-20210408	Solid	04/08/21 11:15	04/08/21 18:08	
410-35275-17	AOI9-BH-21-07-0-2-20210408	Solid	04/08/21 11:20	04/08/21 18:08	
410-35275-18	AOI9-BH-21-06-0-2-20210408	Solid	04/08/21 12:00	04/08/21 18:08	
410-35275-19	AOI9-BH-21-05-0-2-20210408	Solid	04/08/21 12:10	04/08/21 18:08	
410-35275-20	AOI9-BH-21-09-0-2-20210408	Solid	04/08/21 12:20	04/08/21 18:08	
410-35275-21	AOI9-BH-21-02-0-2-20210408	Solid	04/08/21 12:45	04/08/21 18:08	
410-35275-22	AOI9-BH-21-01-0-2-20210408	Solid	04/08/21 12:55	04/08/21 18:08	
410-35275-23	AOI9-BH-21-04-0-2-20210408	Solid	04/08/21 13:10	04/08/21 18:08	
410-35275-24	AOI9-BH-21-03-0-2-20210408	Solid	04/08/21 13:15	04/08/21 18:08	
410-35275-25	FB-20210408	Water	04/08/21 13:45	04/08/21 18:08	

Environmental Analysis Reques y

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For Eurofins Acct. # _____ Group # _____

410-35275 Chain of Custody

COC #617259

Client Information

Client: Evergreen C/o Stantec	Acct. #: 16657
Project Name/#: Former PES Lead Soil Delineation	PWSID #:
Project Manager: Jenny Kachel	P.O. #: 2134033603
Sampler: Dane Hopkins / Jenny Kachel / Andrea Hill	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Tissue ☐ Ground ☐ Surface ☐ Sediment ☐ Potable ☐ NPDES ☐ Soil ☒ Water ☐ Other: ____

Analysis Requested — Preservation and Filtration Codes

For Lab Use Only
FSC: _____
SCR#: _____

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	Lead 6010
A018-BH-21-06-0-2-20210407	4/7/21	930	X		1	X
A018-BH-21-05-0-2-20210407	4/7/21	950	X		1	X
A014-BH-21-03-0-2-20210407	4/7/21	1115	X		1	X
A018-BH-21-04-0-2-20210407	4/7/21	1130	X		1	X
A014-BH-21-02-0-2-20210407	4/7/21	1145	X		1	X
A018-BH-21-01-0-2-20210407	4/7/21	1200	X		1	X
A012-BH-21-01-0-2-20210407	4/7/21	1230	X		1	X
A011-BH-21-01-0-0.25-20210407	4/7/21	1300	X		1	X
A015-BH-21-01-0-2-20210407	4/7/21	1320	X		1	X
A015-BH-21-02-0-2-20210407	4/7/21	1335	X		1	X

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: Jenny.Kachel@Stantec.com

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
[signature]	4/8/21	1808			
			[signature]	4/9/21	1900

EDD Required? Yes No
If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other X

Temperature upon receipt 1.4 °C

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1 of 3

4/22/2021

Environmental Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories Environmental use only

Acct. # _____ Group # _____ Sample # _____

COC # 617260

Client Information

Client: Evergreen c/o Stantec	Acct. #: 166057
Project Name/#: Former PES Lead Soil Delineation	PWSID #:
Project Manager: Jenny Kachel	P.O. #: 2134033663
Sampler: Dane Hopkins / Jenny Kachel / Andrea Hill	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

Matrix: Tissue ☐ Soil/Sediment ☒ Water: Ground ☐ Potable ☐ Surface ☐ NPDES ☐ Other: ☐

Analysis Requested — Preservation and Filtration Codes

For Lab Use Only
FSC: _____
SCR#: 266093

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	Lead 6010	Remarks
A014-BH-21-01-0-2-20210407	4/7/21	1430	X		1	X	
A016-BH-21-01-0-2-20210407	4/7/21	1510	X		1	X	
A010-BH-21-03-0-2-20210405	4/8/21	1020	X		1	X	
A010-BH-21-02-0-2-20210408	4/8/21	1030	X		1	X	
A010-BH-21-01-0-2-20210408	4/8/21	1045	X		1	X	
A019-BH-21-08-0-2-20210408	4/8/21	1115	X		1	X	
A019-BH-21-07-0-2-20210408	4/8/21	1120	X		1	X	
A019-BH-21-06-0-2-20210408	4/8/21	1200	X		1	X	
A019-BH-21-05-0-2-20210408	4/8/21	1210	X		1	X	
A019-BH-21-09-0-2-20210408	4/8/21	1220	X		1	X	

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: jenny.kachel@stantec.com

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP)
Type III (Reduced non-CLP)
NYSDEC Category A or B
Type VI (Raw Data Only)
NJ DKQP
MA MCP
TX TRRP-13
CT RCP

Relinquished by	Date	Time	Received by	Date	Time
[signature]	4/8/21	1800			
			[signature]	4/9/21	1808

EDD Required? Yes No
If yes, format: EQuIS

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other X

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Temperature upon receipt 1.4 °C

Environmental Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories Environmental use only

Acct. # _____ Group # _____ Sample # _____

COC #615419

Client Information

Client: Evergreen C/o Stantec	Acct. #: 166657
Project Name/#: Former PES Lead Soil Delineation	PWSID #:
Project Manager: Jenny Kachel	P.O. #: 2134033603
Sampler: Dave Hopkins / Andrew Hill / Jenny Kachel	Quote #:

State where samples were collected: PA

For Compliance: Yes ☐ No ☐

Sample Identification	Collected Date	Collected Time	Grab	Composite	Matrix: Soil	Tissue	Sediment	Ground Water	Potable	NPDES	Surface	Other	Total # of Containers	Analysis Requested: Lead (6010)	Remarks
AOI9-BH-21-02-0-2-20210408	4/8/21	1245	X		X								1	X	
AOI9-BH-21-01-0-2-20210408	4/8/21	1255	X		X								1	X	
AOI9-BH-21-04-0-2-20210408	4/8/21	1310	X		X								1	X	
AOI9-BH-21-03-0-2-20210408	4/8/21	1315	X		X								1	X	
FB-20210408	4/8/21	1345	X									X	1	X	

Preservation and Filtration Codes

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

For Lab Use Only
FSC: _____
SCR#: _____

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: Jenny.kachel@stantec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)
Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13
NYSDEC Category A or B | MA MCP | CT RCP

Relinquished by	Date	Time	Received by	Date	Time
[signature]	4/8/21	1808			
			[signature]	4/8/21	18:00

EDD Required? Yes No
If yes, format: Equis

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other X

Temperature upon receipt 1.4 °C

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3 of 3

Login Sample Receipt Checklist

Client: Stantec Consulting Services Inc

Job Number: 410-35275-1

Login Number: 35275

List Source: Eurofins Lancaster Laboratories Env

List Number: 1

Creator: Reiff, Nicole L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-37313-1
Client Project/Site: Former PES Annual GWS
Revision: 1

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Mr. Andrew Bradley

Authorized for release by:
5/24/2021 3:12:09 PM

Amek Carter, Project Manager
(717)556-7252
Loran.Carter@eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
5/24/2021 3:12:09 PM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 6
Detection Summary 7
Client Sample Results 10
Surrogate Summary 19
QC Sample Results 21
QC Association Summary 34
Lab Chronicle 40
Certification Summary 44
Method Summary 45
Sample Summary 46
Chain of Custody 47
Receipt Checklists 49

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-37313-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-37313-1

Comments
No additional comments.

Revision
The report being provided is a revision of the original report sent on 5/10/2021. The report (revision 1) is being revised due to: t-Butyl alcohol was requested after the original report was generated.

Receipt
The samples were received on 4/26/2021 3:32 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.7º C and 2.4º C.

GC/MS VOA
Method 8260C/UST: The [QC] associated with 410-121085 is compliant under 8260C criteria for Naphthalene. The software does not display the data to the whole number as is listed in the method (i.e. limit of 20%). When applying the evaluation to a whole number, the QC passes the criteria.

Method 8260C/UST: The following sample was diluted due to the abundance of non-target analytes: OW-20_20210423 (410-37313-3). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Field Service / Mobile Lab
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method 8011:

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37313-1

Client Sample ID: MW-44_20210423 — Lab Sample ID: 410-37313-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1500		50	10	ug/L	10		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	450		50	3.0	ug/L	10		8260C/UST	Total/NA
Ethylbenzene	1400		10	4.0	ug/L	10		8260C/UST	Total/NA
Isopropylbenzene	55		50	2.0	ug/L	10		8260C/UST	Total/NA
Methyl tert-butyl ether	160		10	2.0	ug/L	10		8260C/UST	Total/NA
tert-Butyl alcohol	1400		500	120	ug/L	10		8260C/UST	Total/NA
Toluene	390		10	2.0	ug/L	10		8260C/UST	Total/NA
Xylenes, Total	7900		60	14	ug/L	10		8260C/UST	Total/NA
Benzene - DL	11000		100	20	ug/L	100		8260C/UST	Total/NA
Anthracene	1.0		0.58	0.12	ug/L	1		8270D	Total/NA
Benzo[a]anthracene	1.9		0.58	0.12	ug/L	1		8270D	Total/NA
Benzo[a]pyrene	3.0		0.58	0.13	ug/L	1		8270D	Total/NA
Benzo[b]fluoranthene	4.8		0.58	0.12	ug/L	1		8270D	Total/NA
Benzo[g,h,i]perylene	2.0		0.58	0.12	ug/L	1		8270D	Total/NA
Chrysene	4.5		0.58	0.12	ug/L	1		8270D	Total/NA
Fluorene	4.6		0.58	0.14	ug/L	1		8270D	Total/NA
Phenanthrene	8.7		0.58	0.13	ug/L	1		8270D	Total/NA
Pyrene	6.5		0.58	0.12	ug/L	1		8270D	Total/NA
Naphthalene - DL	330		5.8	1.2	ug/L	10		8270D	Total/NA
Ethane (1C)	8.4		5.0	1.0	ug/L	1		RSK-175	Total/NA
Ethene (1C)	2.3	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	15000		500	300	ug/L	100		RSK-175	Total/NA
Sulfate	6800	J	10000	3000	ug/L	10		EPA 300.0 R2.1	Total/NA
Calcium	50000		500	96	ug/L	1		6010C	Total Recoverable
Iron	77000		200	40	ug/L	1		6010C	Total Recoverable
Lead	5.4		0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	150000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	21000	*+	10000	5000	ug/L	10		351.2	Total/NA
Total Carbon	150000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	65000		5000	2500	ug/L	5		5310C-2011	Total/NA
Total Inorganic Carbon	85000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-394_20210423 — Lab Sample ID: 410-37313-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1.2	J	5.0	1.0	ug/L	1		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	0.45	J	5.0	0.30	ug/L	1		8260C/UST	Total/NA
Benzene	19		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Ethylbenzene	1.4		1.0	0.40	ug/L	1		8260C/UST	Total/NA
Toluene	0.56	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Xylenes, Total	8.2		6.0	1.4	ug/L	1		8260C/UST	Total/NA
Benzo[a]anthracene	0.69		0.54	0.11	ug/L	1		8270D	Total/NA
Benzo[a]pyrene	1.6		0.54	0.12	ug/L	1		8270D	Total/NA
Benzo[b]fluoranthene	2.9		0.54	0.11	ug/L	1		8270D	Total/NA
Benzo[g,h,i]perylene	1.3		0.54	0.11	ug/L	1		8270D	Total/NA
Chrysene	2.1		0.54	0.11	ug/L	1		8270D	Total/NA
Naphthalene	0.42	J	0.54	0.11	ug/L	1		8270D	Total/NA
Phenanthrene	1.4		0.54	0.12	ug/L	1		8270D	Total/NA
Pyrene	2.8		0.54	0.11	ug/L	1		8270D	Total/NA
Methane (1C)	21		5.0	3.0	ug/L	1		RSK-175	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: S-394_20210423 (Continued) — Lab Sample ID: 410-37313-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	350000		50000	15000	ug/L	50		EPA 300.0 R2.1	Total/NA
Calcium	74000		500	96	ug/L	1		6010C	Total Recoverable
Iron	34000		200	40	ug/L	1		6010C	Total Recoverable
Lead	0.99		0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	91000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	1100	*+	1000	500	ug/L	1		351.2	Total/NA
Total Carbon	56000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	5600		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	50000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: OW-20_20210423 — Lab Sample ID: 410-37313-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	2000	J	5000	1000	ug/L	1000		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	720	J	5000	300	ug/L	1000		8260C/UST	Total/NA
Benzene	19000		1000	200	ug/L	1000		8260C/UST	Total/NA
Ethylbenzene	1200		1000	400	ug/L	1000		8260C/UST	Total/NA
Isopropylbenzene	1600	J	5000	200	ug/L	1000		8260C/UST	Total/NA
Methyl tert-butyl ether	2700		1000	200	ug/L	1000		8260C/UST	Total/NA
tert-Butyl alcohol	20000	J	50000	12000	ug/L	1000		8260C/UST	Total/NA
Toluene	10000		1000	200	ug/L	1000		8260C/UST	Total/NA
Xylenes, Total	15000		6000	1400	ug/L	1000		8260C/UST	Total/NA
Anthracene	36		5.4	1.1	ug/L	10		8270D	Total/NA
Benzo[a]anthracene	25		5.4	1.1	ug/L	10		8270D	Total/NA
Benzo[a]pyrene	17		5.4	1.2	ug/L	10		8270D	Total/NA
Benzo[b]fluoranthene	21		5.4	1.1	ug/L	10		8270D	Total/NA
Benzo[g,h,i]perylene	6.8		5.4	1.1	ug/L	10		8270D	Total/NA
Chrysene	24		5.4	1.1	ug/L	10		8270D	Total/NA
Fluorene	57		5.4	1.3	ug/L	10		8270D	Total/NA
Naphthalene	1300		5.4	1.1	ug/L	10		8270D	Total/NA
Phenanthrene	130		5.4	1.2	ug/L	10		8270D	Total/NA
Pyrene	82		5.4	1.1	ug/L	10		8270D	Total/NA
Ethane (1C)	7.7		5.0	1.0	ug/L	1		RSK-175	Total/NA
Ethene (1C)	2.0	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	12000		250	150	ug/L	50		RSK-175	Total/NA
Calcium	230000		500	96	ug/L	1		6010C	Total Recoverable
Iron	540000		4000	800	ug/L	20		6010C	Total Recoverable
Lead	2.8		0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	68000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	69000	*+	20000	10000	ug/L	20		351.2	Total/NA
Total Carbon	1100000		50000	25000	ug/L	50		5310 B-2011	Total/NA
Total Organic Carbon	470000		10000	5000	ug/L	10		5310C-2011	Total/NA
Total Inorganic Carbon	630000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-284D_20210423 — Lab Sample ID: 410-37313-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1.1	J	5.0	1.0	ug/L	1		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	0.43	J	5.0	0.30	ug/L	1		8260C/UST	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37313-1

Client Sample ID: S-284D_20210423 (Continued) — Lab Sample ID: 410-37313-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	10		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Ethylbenzene	0.55	J	1.0	0.40	ug/L	1		8260C/UST	Total/NA
Methyl tert-butyl ether	1.3		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Toluene	4.2		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Xylenes, Total	6.0		6.0	1.4	ug/L	1		8260C/UST	Total/NA
Naphthalene	0.22	J	0.57	0.11	ug/L	1		8270D	Total/NA
Methane (1C)	60		5.0	3.0	ug/L	1		RSK-175	Total/NA
Sulfate	28000		5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	80000		500	96	ug/L	1		6010C	Total Recoverable
Iron	1800		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	280000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	29000	*+	10000	5000	ug/L	10		351.2	Total/NA
Total Carbon	72000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	7900		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	64000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: FB_20210426 — Lab Sample ID: 410-37313-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	430	J	500	96	ug/L	1		6010C	Total Recoverable
Total Carbon	520	J	1000	500	ug/L	1		5310 B-2011	Total/NA

Client Sample ID: TB_20210426 — Lab Sample ID: 410-37313-6

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-44_20210423

Date Collected: 04/23/21 08:40
Date Received: 04/26/21 15:32

Lab Sample ID: 410-37313-1

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**1500**		50	10	ug/L			04/30/21 22:05	10
1,2-Dichloroethane	ND		10	3.0	ug/L			04/30/21 22:05	10
1,3,5-Trimethylbenzene	**450**		50	3.0	ug/L			04/30/21 22:05	10
Ethylbenzene	**1400**		10	4.0	ug/L			04/30/21 22:05	10
Isopropylbenzene	**55**		50	2.0	ug/L			04/30/21 22:05	10
Methyl tert-butyl ether	**160**		10	2.0	ug/L			04/30/21 22:05	10
tert-Butyl alcohol	**1400**		500	120	ug/L			04/30/21 22:05	10
Toluene	**390**		10	2.0	ug/L			04/30/21 22:05	10
Xylenes, Total	**7900**		60	14	ug/L			04/30/21 22:05	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*80 - 120*		*04/30/21 22:05*	*10*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*04/30/21 22:05*	*10*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*04/30/21 22:05*	*10*
Toluene-d8 (Surr)	*103*		*80 - 120*		*04/30/21 22:05*	*10*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**11000**		100	20	ug/L			04/30/21 22:29	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*80 - 120*		*04/30/21 22:29*	*100*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*		*04/30/21 22:29*	*100*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*04/30/21 22:29*	*100*
Toluene-d8 (Surr)	*105*		*80 - 120*		*04/30/21 22:29*	*100*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**1.0**		0.58	0.12	ug/L		04/30/21 09:55	05/02/21 20:27	1
Benzo[a]anthracene	**1.9**		0.58	0.12	ug/L		04/30/21 09:55	05/02/21 20:27	1
Benzo[a]pyrene	**3.0**		0.58	0.13	ug/L		04/30/21 09:55	05/02/21 20:27	1
Benzo[b]fluoranthene	**4.8**		0.58	0.12	ug/L		04/30/21 09:55	05/02/21 20:27	1
Benzo[g,h,i]perylene	**2.0**		0.58	0.12	ug/L		04/30/21 09:55	05/02/21 20:27	1
Chrysene	**4.5**		0.58	0.12	ug/L		04/30/21 09:55	05/02/21 20:27	1
Fluorene	**4.6**		0.58	0.14	ug/L		04/30/21 09:55	05/02/21 20:27	1
Phenanthrene	**8.7**		0.58	0.13	ug/L		04/30/21 09:55	05/02/21 20:27	1
Pyrene	**6.5**		0.58	0.12	ug/L		04/30/21 09:55	05/02/21 20:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*68*		*44 - 102*	*04/30/21 09:55*	*05/02/21 20:27*	*1*
Nitrobenzene-d5 (Surr)	*7*	*S1-*	*23 - 128*	*04/30/21 09:55*	*05/02/21 20:27*	*1*
p-Terphenyl-d14 (Surr)	*83*		*31 - 113*	*04/30/21 09:55*	*05/02/21 20:27*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**330**		5.8	1.2	ug/L		04/30/21 09:55	05/07/21 19:37	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*72*		*44 - 102*	*04/30/21 09:55*	*05/07/21 19:37*	*10*
Nitrobenzene-d5 (Surr)	*7*	*S1-*	*23 - 128*	*04/30/21 09:55*	*05/07/21 19:37*	*10*
p-Terphenyl-d14 (Surr)	*87*		*31 - 113*	*04/30/21 09:55*	*05/07/21 19:37*	*10*

Client Sample ID: MW-44_20210423

Lab Sample ID: 410-37313-1

Date Collected: 04/23/21 08:40

Matrix: Water

Date Received: 04/26/21 15:32

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	8.4		5.0	1.0	ug/L		04/27/21 07:33	04/27/21 18:33	1
Ethene (1C)	2.3	J	5.0	1.0	ug/L		04/27/21 07:33	04/27/21 18:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*98*		*28 - 140*	*04/27/21 07:33*	*04/27/21 18:33*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	15000		500	300	ug/L		04/28/21 08:13	04/28/21 12:37	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*104*		*28 - 140*	*04/28/21 08:13*	*04/28/21 12:37*	*100*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0096	ug/L		04/27/21 16:35	04/28/21 16:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*151*	*S1+*	*46 - 136*	*04/27/21 16:35*	*04/28/21 16:01*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*144*	*S1+*	*46 - 136*	*04/27/21 16:35*	*04/28/21 16:01*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	6800	J	10000	3000	ug/L			04/29/21 04:10	10

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	50000		500	96	ug/L		04/27/21 14:36	04/30/21 16:18	1
Iron	77000		200	40	ug/L		04/27/21 14:36	04/30/21 16:18	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	5.4		0.52	0.073	ug/L		04/27/21 18:26	04/28/21 11:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	150000		8000	8000	ug/L			04/28/21 20:01	1
Total Kjeldahl Nitrogen	21000	*+	10000	5000	ug/L		04/27/21 13:27	05/05/21 10:59	10
Total Carbon	150000		10000	5000	ug/L			04/29/21 15:55	10
Total Organic Carbon	65000		5000	2500	ug/L			05/01/21 00:45	5
Total Inorganic Carbon	85000		2000	600	ug/L			05/05/21 10:15	1

Client Sample ID: S-394_20210423

Lab Sample ID: 410-37313-2

Date Collected: 04/23/21 10:00

Matrix: Water

Date Received: 04/26/21 15:32

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	1.2	J	5.0	1.0	ug/L			04/30/21 19:40	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			04/30/21 19:40	1
1,3,5-Trimethylbenzene	0.45	J	5.0	0.30	ug/L			04/30/21 19:40	1
Benzene	19		1.0	0.20	ug/L			04/30/21 19:40	1

Client Sample ID: S-394_20210423

Date Collected: 04/23/21 10:00
Date Received: 04/26/21 15:32

Lab Sample ID: 410-37313-2

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**1.4**		1.0	0.40	ug/L			04/30/21 19:40	1
Isopropylbenzene	ND		5.0	0.20	ug/L			04/30/21 19:40	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			04/30/21 19:40	1
tert-Butyl alcohol	ND		50	12	ug/L			04/30/21 19:40	1
Toluene	**0.56**	**J**	1.0	0.20	ug/L			04/30/21 19:40	1
Xylenes, Total	**8.2**		6.0	1.4	ug/L			04/30/21 19:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*80 - 120*		*04/30/21 19:40*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*04/30/21 19:40*	*1*
Dibromofluoromethane (Surr)	*99*		*80 - 120*		*04/30/21 19:40*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*04/30/21 19:40*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.54	0.11	ug/L		04/30/21 18:49	05/03/21 22:55	1
Benzo[a]anthracene	**0.69**		0.54	0.11	ug/L		04/30/21 18:49	05/03/21 22:55	1
Benzo[a]pyrene	**1.6**		0.54	0.12	ug/L		04/30/21 18:49	05/03/21 22:55	1
Benzo[b]fluoranthene	**2.9**		0.54	0.11	ug/L		04/30/21 18:49	05/03/21 22:55	1
Benzo[g,h,i]perylene	**1.3**		0.54	0.11	ug/L		04/30/21 18:49	05/03/21 22:55	1
Chrysene	**2.1**		0.54	0.11	ug/L		04/30/21 18:49	05/03/21 22:55	1
Fluorene	ND		0.54	0.13	ug/L		04/30/21 18:49	05/03/21 22:55	1
Naphthalene	**0.42**	**J**	0.54	0.11	ug/L		04/30/21 18:49	05/03/21 22:55	1
Phenanthrene	**1.4**		0.54	0.12	ug/L		04/30/21 18:49	05/03/21 22:55	1
Pyrene	**2.8**		0.54	0.11	ug/L		04/30/21 18:49	05/03/21 22:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*69*		*44 - 102*	*04/30/21 18:49*	*05/03/21 22:55*	*1*
Nitrobenzene-d5 (Surr)	*70*		*23 - 128*	*04/30/21 18:49*	*05/03/21 22:55*	*1*
p-Terphenyl-d14 (Surr)	*65*		*31 - 113*	*04/30/21 18:49*	*05/03/21 22:55*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		04/27/21 07:33	04/27/21 18:52	1
Ethene (1C)	ND		5.0	1.0	ug/L		04/27/21 07:33	04/27/21 18:52	1
Methane (1C)	**21**		5.0	3.0	ug/L		04/27/21 07:33	04/27/21 18:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*95*		*28 - 140*	*04/27/21 07:33*	*04/27/21 18:52*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0095	ug/L		04/27/21 16:35	04/28/21 16:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*96*		*46 - 136*	*04/27/21 16:35*	*04/28/21 16:18*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*93*		*46 - 136*	*04/27/21 16:35*	*04/28/21 16:18*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**350000**		50000	15000	ug/L			04/29/21 13:48	50

Client Sample ID: S-394_20210423

Lab Sample ID: 410-37313-2

Date Collected: 04/23/21 10:00

Matrix: Water

Date Received: 04/26/21 15:32

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	74000		500	96	ug/L		04/27/21 14:36	04/30/21 15:22	1
Iron	34000		200	40	ug/L		04/27/21 14:36	04/30/21 15:22	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.99		0.52	0.073	ug/L		04/27/21 18:26	04/28/21 11:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	91000		8000	8000	ug/L			04/28/21 20:23	1
Total Kjeldahl Nitrogen	1100	*+	1000	500	ug/L		04/27/21 13:27	05/05/21 10:17	1
Total Carbon	56000		10000	5000	ug/L			04/29/21 16:28	10
Total Organic Carbon	5600		1000	500	ug/L			05/05/21 13:12	1
Total Inorganic Carbon	50000		2000	600	ug/L			05/05/21 10:15	1

Client Sample ID: OW-20_20210423

Lab Sample ID: 410-37313-3

Date Collected: 04/23/21 12:00

Matrix: Water

Date Received: 04/26/21 15:32

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	2000	J	5000	1000	ug/L			05/05/21 15:33	1000
1,2-Dichloroethane	ND		1000	300	ug/L			05/05/21 15:33	1000
1,3,5-Trimethylbenzene	720	J	5000	300	ug/L			05/05/21 15:33	1000
Benzene	19000		1000	200	ug/L			05/05/21 15:33	1000
Ethylbenzene	1200		1000	400	ug/L			05/05/21 15:33	1000
Isopropylbenzene	1600	J	5000	200	ug/L			05/05/21 15:33	1000
Methyl tert-butyl ether	2700		1000	200	ug/L			05/05/21 15:33	1000
tert-Butyl alcohol	20000	J	50000	12000	ug/L			05/05/21 15:33	1000
Toluene	10000		1000	200	ug/L			05/05/21 15:33	1000
Xylenes, Total	15000		6000	1400	ug/L			05/05/21 15:33	1000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*80 - 120*		*05/05/21 15:33*	*1000*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*05/05/21 15:33*	*1000*
Dibromofluoromethane (Surr)	*105*		*80 - 120*		*05/05/21 15:33*	*1000*
Toluene-d8 (Surr)	*99*		*80 - 120*		*05/05/21 15:33*	*1000*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	36		5.4	1.1	ug/L		04/30/21 18:49	05/03/21 23:24	10
Benzo[a]anthracene	25		5.4	1.1	ug/L		04/30/21 18:49	05/03/21 23:24	10
Benzo[a]pyrene	17		5.4	1.2	ug/L		04/30/21 18:49	05/03/21 23:24	10
Benzo[b]fluoranthene	21		5.4	1.1	ug/L		04/30/21 18:49	05/03/21 23:24	10
Benzo[g,h,i]perylene	6.8		5.4	1.1	ug/L		04/30/21 18:49	05/03/21 23:24	10
Chrysene	24		5.4	1.1	ug/L		04/30/21 18:49	05/03/21 23:24	10
Fluorene	57		5.4	1.3	ug/L		04/30/21 18:49	05/03/21 23:24	10
Naphthalene	1300		5.4	1.1	ug/L		04/30/21 18:49	05/03/21 23:24	10
Phenanthrene	130		5.4	1.2	ug/L		04/30/21 18:49	05/03/21 23:24	10
Pyrene	82		5.4	1.1	ug/L		04/30/21 18:49	05/03/21 23:24	10

Client Sample ID: OW-20_20210423

Date Collected: 04/23/21 12:00
Date Received: 04/26/21 15:32

Lab Sample ID: 410-37313-3

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	84		44 - 102	04/30/21 18:49	05/03/21 23:24	10
Nitrobenzene-d5 (Surr)	6	S1-	23 - 128	04/30/21 18:49	05/03/21 23:24	10
p-Terphenyl-d14 (Surr)	93		31 - 113	04/30/21 18:49	05/03/21 23:24	10

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	7.7		5.0	1.0	ug/L		04/27/21 07:33	04/27/21 19:10	1
Ethene (1C)	2.0	J	5.0	1.0	ug/L		04/27/21 07:33	04/27/21 19:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Propene (1C)	109		28 - 140	04/27/21 07:33	04/27/21 19:10	1

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	12000		250	150	ug/L		04/28/21 08:13	04/28/21 12:56	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Propene (1C)	104		28 - 140	04/28/21 08:13	04/28/21 12:56	50

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.028	0.0095	ug/L		04/27/21 16:35	04/28/21 16:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane (Surr) (1C)	58		46 - 136	04/27/21 16:35	04/28/21 16:35	1
1,1,2,2-Tetrachloroethane (Surr) (2C)	609	S1+	46 - 136	04/27/21 16:35	04/28/21 16:35	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			04/30/21 20:35	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	230000		500	96	ug/L		04/27/21 14:36	04/30/21 16:21	1
Iron	540000		4000	800	ug/L		04/27/21 14:36	05/06/21 22:53	20

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	2.8		0.52	0.073	ug/L		04/27/21 18:26	04/28/21 11:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	68000		8000	8000	ug/L			04/28/21 20:17	1
Total Kjeldahl Nitrogen	69000	*+	20000	10000	ug/L		04/27/21 13:27	05/05/21 10:15	20
Total Carbon	1100000		50000	25000	ug/L			04/29/21 16:39	50
Total Organic Carbon	470000		10000	5000	ug/L			05/01/21 01:13	10
Total Inorganic Carbon	630000		2000	600	ug/L			05/05/21 10:15	1

Client Sample ID: S-284D_20210423

Date Collected: 04/23/21 13:50
Date Received: 04/26/21 15:32

Lab Sample ID: 410-37313-4

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**1.1**	**J**	5.0	1.0	ug/L			04/30/21 20:04	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			04/30/21 20:04	1
1,3,5-Trimethylbenzene	**0.43**	**J**	5.0	0.30	ug/L			04/30/21 20:04	1
Benzene	**10**		1.0	0.20	ug/L			04/30/21 20:04	1
Ethylbenzene	**0.55**	**J**	1.0	0.40	ug/L			04/30/21 20:04	1
Isopropylbenzene	ND		5.0	0.20	ug/L			04/30/21 20:04	1
Methyl tert-butyl ether	**1.3**		1.0	0.20	ug/L			04/30/21 20:04	1
tert-Butyl alcohol	ND		50	12	ug/L			04/30/21 20:04	1
Toluene	**4.2**		1.0	0.20	ug/L			04/30/21 20:04	1
Xylenes, Total	**6.0**		6.0	1.4	ug/L			04/30/21 20:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 120*		*04/30/21 20:04*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*04/30/21 20:04*	*1*
Dibromofluoromethane (Surr)	*99*		*80 - 120*		*04/30/21 20:04*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*04/30/21 20:04*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.57	0.11	ug/L		04/30/21 18:49	05/04/21 14:27	1
Benzo[a]anthracene	ND		0.57	0.11	ug/L		04/30/21 18:49	05/04/21 14:27	1
Benzo[a]pyrene	ND		0.57	0.12	ug/L		04/30/21 18:49	05/04/21 14:27	1
Benzo[b]fluoranthene	ND		0.57	0.11	ug/L		04/30/21 18:49	05/04/21 14:27	1
Benzo[g,h,i]perylene	ND		0.57	0.11	ug/L		04/30/21 18:49	05/04/21 14:27	1
Chrysene	ND		0.57	0.11	ug/L		04/30/21 18:49	05/04/21 14:27	1
Fluorene	ND		0.57	0.14	ug/L		04/30/21 18:49	05/04/21 14:27	1
Naphthalene	**0.22**	**J**	0.57	0.11	ug/L		04/30/21 18:49	05/04/21 14:27	1
Phenanthrene	ND		0.57	0.12	ug/L		04/30/21 18:49	05/04/21 14:27	1
Pyrene	ND		0.57	0.11	ug/L		04/30/21 18:49	05/04/21 14:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*82*		*44 - 102*	*04/30/21 18:49*	*05/04/21 14:27*	*1*
Nitrobenzene-d5 (Surr)	*81*		*23 - 128*	*04/30/21 18:49*	*05/04/21 14:27*	*1*
p-Terphenyl-d14 (Surr)	*93*		*31 - 113*	*04/30/21 18:49*	*05/04/21 14:27*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		04/27/21 07:33	04/27/21 19:29	1
Ethene (1C)	ND		5.0	1.0	ug/L		04/27/21 07:33	04/27/21 19:29	1
Methane (1C)	**60**		5.0	3.0	ug/L		04/27/21 07:33	04/27/21 19:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*87*		*28 - 140*	*04/27/21 07:33*	*04/27/21 19:29*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0095	ug/L		04/27/21 16:35	04/28/21 16:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*70*		*46 - 136*	*04/27/21 16:35*	*04/28/21 16:52*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*82*		*46 - 136*	*04/27/21 16:35*	*04/28/21 16:52*	*1*

Client Sample ID: S-284D_20210423

Lab Sample ID: 410-37313-4

Date Collected: 04/23/21 13:50
Matrix: Water
Date Received: 04/26/21 15:32

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**28000**		5000	1500	ug/L			04/29/21 04:43	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**80000**		500	96	ug/L		04/27/21 14:36	04/30/21 16:12	1
Iron	**1800**		200	40	ug/L		04/27/21 14:36	04/30/21 16:12	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		04/27/21 18:26	04/28/21 11:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**280000**		8000	8000	ug/L			04/28/21 20:30	1
Total Kjeldahl Nitrogen	**29000**	***+**	10000	5000	ug/L		04/27/21 13:27	05/05/21 10:21	10
Total Carbon	**72000**		10000	5000	ug/L			04/29/21 16:49	10
Total Organic Carbon	**7900**		1000	500	ug/L			04/30/21 23:06	1
Total Inorganic Carbon	**64000**		2000	600	ug/L			05/05/21 10:15	1

Client Sample ID: FB_20210426

Lab Sample ID: 410-37313-5

Date Collected: 04/26/21 09:00
Matrix: Water
Date Received: 04/26/21 15:32

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			04/30/21 14:27	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			04/30/21 14:27	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			04/30/21 14:27	1
Benzene	ND		1.0	0.20	ug/L			04/30/21 14:27	1
Ethylbenzene	ND		1.0	0.40	ug/L			04/30/21 14:27	1
Isopropylbenzene	ND		5.0	0.20	ug/L			04/30/21 14:27	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			04/30/21 14:27	1
tert-Butyl alcohol	ND		50	12	ug/L			04/30/21 14:27	1
Toluene	ND		1.0	0.20	ug/L			04/30/21 14:27	1
Xylenes, Total	ND		6.0	1.4	ug/L			04/30/21 14:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 120*		*04/30/21 14:27*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*04/30/21 14:27*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*04/30/21 14:27*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*04/30/21 14:27*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.51	0.10	ug/L		05/01/21 01:14	05/04/21 13:19	1
Benzo[a]anthracene	ND		0.51	0.10	ug/L		05/01/21 01:14	05/04/21 13:19	1
Benzo[a]pyrene	ND		0.51	0.11	ug/L		05/01/21 01:14	05/04/21 13:19	1
Benzo[b]fluoranthene	ND		0.51	0.10	ug/L		05/01/21 01:14	05/04/21 13:19	1
Benzo[g,h,i]perylene	ND		0.51	0.10	ug/L		05/01/21 01:14	05/04/21 13:19	1
Chrysene	ND		0.51	0.10	ug/L		05/01/21 01:14	05/04/21 13:19	1
Fluorene	ND		0.51	0.12	ug/L		05/01/21 01:14	05/04/21 13:19	1

Client Sample ID: FB_20210426
Date Collected: 04/26/21 09:00
Date Received: 04/26/21 15:32

Lab Sample ID: 410-37313-5
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.51	0.10	ug/L		05/01/21 01:14	05/04/21 13:19	1
Phenanthrene	ND		0.51	0.11	ug/L		05/01/21 01:14	05/04/21 13:19	1
Pyrene	ND		0.51	0.10	ug/L		05/01/21 01:14	05/04/21 13:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*64*		*44 - 102*	*05/01/21 01:14*	*05/04/21 13:19*	*1*
Nitrobenzene-d5 (Surr)	*59*		*23 - 128*	*05/01/21 01:14*	*05/04/21 13:19*	*1*
p-Terphenyl-d14 (Surr)	*87*		*31 - 113*	*05/01/21 01:14*	*05/04/21 13:19*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		04/27/21 07:33	04/27/21 19:48	1
Ethene (1C)	ND		5.0	1.0	ug/L		04/27/21 07:33	04/27/21 19:48	1
Methane (1C)	ND		5.0	3.0	ug/L		04/27/21 07:33	04/27/21 19:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*102*		*28 - 140*	*04/27/21 07:33*	*04/27/21 19:48*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0096	ug/L		04/27/21 16:35	04/28/21 17:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*99*		*46 - 136*	*04/27/21 16:35*	*04/28/21 17:09*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*99*		*46 - 136*	*04/27/21 16:35*	*04/28/21 17:09*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1000	300	ug/L			04/29/21 06:55	1

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**430**	**J**	500	96	ug/L		04/27/21 14:36	04/30/21 16:00	1
Iron	ND		200	40	ug/L		04/27/21 14:36	04/30/21 16:00	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		04/27/21 18:26	04/28/21 11:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8000	8000	ug/L			04/28/21 20:37	1
Total Kjeldahl Nitrogen	ND	*+	1000	500	ug/L		04/27/21 13:27	05/05/21 10:38	1
Total Carbon	**520**	**J**	1000	500	ug/L			04/29/21 17:00	1
Total Organic Carbon	ND		1000	500	ug/L			04/30/21 23:20	1
Total Inorganic Carbon	ND		2000	600	ug/L			05/05/21 10:15	1

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37313-1

Client Sample ID: TB_20210426
Date Collected: 04/12/21 00:00
Date Received: 04/26/21 15:32

Lab Sample ID: 410-37313-6
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			04/27/21 21:12	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			04/27/21 21:12	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			04/27/21 21:12	1
Benzene	ND		1.0	0.20	ug/L			04/27/21 21:12	1
Ethylbenzene	ND		1.0	0.40	ug/L			04/27/21 21:12	1
Isopropylbenzene	ND		5.0	0.20	ug/L			04/27/21 21:12	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			04/27/21 21:12	1
tert-Butyl alcohol	ND		50	12	ug/L			04/27/21 21:12	1
Toluene	ND		1.0	0.20	ug/L			04/27/21 21:12	1
Xylenes, Total	ND		6.0	1.4	ug/L			04/27/21 21:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*		*04/27/21 21:12*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*04/27/21 21:12*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*04/27/21 21:12*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*04/27/21 21:12*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0096	ug/L		04/27/21 16:35	04/28/21 17:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*94*		*46 - 136*	*04/27/21 16:35*	*04/28/21 17:26*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*91*		*46 - 136*	*04/27/21 16:35*	*04/28/21 17:26*	*1*

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37313-1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-37313-1	MW-44_20210423	95	103	96	103
410-37313-1 - DL	MW-44_20210423	96	105	97	105
410-37313-2	S-394_20210423	97	102	99	102
410-37313-3	OW-20_20210423	86	93	105	99
410-37313-4	S-284D_20210423	98	102	99	100
410-37313-5	FB_20210426	98	99	98	101
410-37313-6	TB_20210426	101	98	103	101
LCS 410-119662/4	Lab Control Sample	102	102	98	101
LCS 410-121085/4	Lab Control Sample	102	104	96	105
LCS 410-122605/4	Lab Control Sample	87	92	103	101
LCSD 410-119662/5	Lab Control Sample Dup	105	101	99	102
LCSD 410-121085/5	Lab Control Sample Dup	100	103	96	102
LCSD 410-122605/5	Lab Control Sample Dup	87	93	101	102
MB 410-119662/6	Method Blank	100	98	100	103
MB 410-121085/6	Method Blank	101	101	99	102
MB 410-122605/6	Method Blank	86	91	102	101

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(44-102)	(23-128)	(31-113)
410-37313-1	MW-44_20210423	68	7 S1-	83
410-37313-1 - DL	MW-44_20210423	72	7 S1-	87
410-37313-2	S-394_20210423	69	70	65
410-37313-3	OW-20_20210423	84	6 S1-	93
410-37313-4	S-284D_20210423	82	81	93
410-37313-5	FB_20210426	64	59	87
LCS 410-120901/2-A	Lab Control Sample	75	76	97
LCS 410-121223/2-A	Lab Control Sample	78	78	90
LCS 410-121280/2-A	Lab Control Sample	75	75	94
LCSD 410-121223/3-A	Lab Control Sample Dup	79	80	94
MB 410-120901/1-A	Method Blank	79	83	99
MB 410-121223/1-A	Method Blank	76	76	90
MB 410-121280/1-A	Method Blank	62	59	84

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37313-1

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	Propene1 (28-140)						
410-37313-1	MW-44_20210423	98						
410-37313-1 - DL	MW-44_20210423	104						
410-37313-2	S-394_20210423	95						
410-37313-3	OW-20_20210423	109						
410-37313-3 - DL	OW-20_20210423	104						
410-37313-4	S-284D_20210423	87						
410-37313-5	FB_20210426	102						
LCS 410-119343/2-A	Lab Control Sample	108						
LCS 410-119931/2-A	Lab Control Sample	101						
LCSD 410-119343/3-A	Lab Control Sample Dup	104						
LCSD 410-119931/3-A	Lab Control Sample Dup	102						
MB 410-119343/1-A	Method Blank	106						
MB 410-119931/1-A	Method Blank	104						

Surrogate Legend

Propene = Propene

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	1122TCA1 (46-136)	1122TCA2 (46-136)					
410-37313-1	MW-44_20210423	151 S1+	144 S1+					
410-37313-2	S-394_20210423	96	93					
410-37313-3	OW-20_20210423	58	609 S1+					
410-37313-4	S-284D_20210423	70	82					
410-37313-5	FB_20210426	99	99					
410-37313-6	TB_20210426	94	91					
LCS 410-119637/2-A	Lab Control Sample	92	87					
LCSD 410-119637/3-A	Lab Control Sample Dup	79	78					
MB 410-119637/1-A	Method Blank	90	86					

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-119662/6
Matrix: Water
Analysis Batch: 119662

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			04/27/21 20:48	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			04/27/21 20:48	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			04/27/21 20:48	1
Benzene	ND		1.0	0.20	ug/L			04/27/21 20:48	1
Ethylbenzene	ND		1.0	0.40	ug/L			04/27/21 20:48	1
Isopropylbenzene	ND		5.0	0.20	ug/L			04/27/21 20:48	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			04/27/21 20:48	1
tert-Butyl alcohol	ND		50	12	ug/L			04/27/21 20:48	1
Toluene	ND		1.0	0.20	ug/L			04/27/21 20:48	1
Xylenes, Total	ND		6.0	1.4	ug/L			04/27/21 20:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*		*04/27/21 20:48*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*04/27/21 20:48*	*1*
Dibromofluoromethane (Surr)	*100*		*80 - 120*		*04/27/21 20:48*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*04/27/21 20:48*	*1*

Lab Sample ID: LCS 410-119662/4
Matrix: Water
Analysis Batch: 119662

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2,4-Trimethylbenzene			20.0	17.2		ug/L		86	75 - 120		
1,2-Dichloroethane			20.0	16.9		ug/L		85	73 - 124		
1,3,5-Trimethylbenzene			20.0	16.8		ug/L		84	75 - 120		
Benzene			20.0	18.0		ug/L		90	80 - 120		
Ethylbenzene			20.0	17.6		ug/L		88	80 - 120		
Isopropylbenzene			20.0	16.5		ug/L		82	80 - 120		
Methyl tert-butyl ether			20.0	18.4		ug/L		92	69 - 122		
Naphthalene			20.0	17.5		ug/L		88	53 - 124		
tert-Butyl alcohol			200	180		ug/L		90	60 - 130		
Toluene			20.0	18.0		ug/L		90	80 - 120		
Xylenes, Total			60.0	49.8		ug/L		83	80 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*
Dibromofluoromethane (Surr)	*98*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Lab Sample ID: LCSD 410-119662/5
Matrix: Water
Analysis Batch: 119662

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene			20.0	18.7		ug/L		94	75 - 120	9	30
1,2-Dichloroethane			20.0	19.2		ug/L		96	73 - 124	13	30
1,3,5-Trimethylbenzene			20.0	18.3		ug/L		91	75 - 120	9	30

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-119662/5
Matrix: Water
Analysis Batch: 119662

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			20.0	20.8		ug/L		104	80 - 120	14	30
Ethylbenzene			20.0	20.1		ug/L		100	80 - 120	13	30
Isopropylbenzene			20.0	18.7		ug/L		94	80 - 120	13	30
Methyl tert-butyl ether			20.0	20.3		ug/L		102	69 - 122	10	30
Naphthalene			20.0	18.2		ug/L		91	53 - 124	4	30
tert-Butyl alcohol			200	195		ug/L		98	60 - 130	8	30
Toluene			20.0	20.2		ug/L		101	80 - 120	12	30
Xylenes, Total			60.0	56.8		ug/L		95	80 - 120	13	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*80 - 120*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*99*		*80 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

Lab Sample ID: MB 410-121085/6
Matrix: Water
Analysis Batch: 121085

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			04/30/21 14:03	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			04/30/21 14:03	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			04/30/21 14:03	1
Benzene	ND		1.0	0.20	ug/L			04/30/21 14:03	1
Ethylbenzene	ND		1.0	0.40	ug/L			04/30/21 14:03	1
Isopropylbenzene	ND		5.0	0.20	ug/L			04/30/21 14:03	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			04/30/21 14:03	1
tert-Butyl alcohol	ND		50	12	ug/L			04/30/21 14:03	1
Toluene	ND		1.0	0.20	ug/L			04/30/21 14:03	1
Xylenes, Total	ND		6.0	1.4	ug/L			04/30/21 14:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*		*04/30/21 14:03*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*04/30/21 14:03*	*1*
Dibromofluoromethane (Surr)	*99*		*80 - 120*		*04/30/21 14:03*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*04/30/21 14:03*	*1*

Lab Sample ID: LCS 410-121085/4
Matrix: Water
Analysis Batch: 121085

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene			20.0	19.3		ug/L		97	75 - 120
1,2-Dichloroethane			20.0	18.2		ug/L		91	73 - 124
1,3,5-Trimethylbenzene			20.0	19.6		ug/L		98	75 - 120
Benzene			20.0	20.6		ug/L		103	80 - 120
Ethylbenzene			20.0	20.7		ug/L		104	80 - 120
Isopropylbenzene			20.0	18.9		ug/L		94	80 - 120

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-121085/4
Matrix: Water
Analysis Batch: 121085

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Methyl tert-butyl ether			20.0	19.1		ug/L		95	69 - 122		
Naphthalene			20.0	16.5		ug/L		82	53 - 124		
tert-Butyl alcohol			200	197		ug/L		98	60 - 130		
Toluene			20.0	20.6		ug/L		103	80 - 120		
Xylenes, Total			60.0	58.6		ug/L		98	80 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*80 - 120*
Toluene-d8 (Surr)	*105*		*80 - 120*

Lab Sample ID: LCSD 410-121085/5
Matrix: Water
Analysis Batch: 121085

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene			20.0	18.9		ug/L		95	75 - 120	2	30
1,2-Dichloroethane			20.0	17.2		ug/L		86	73 - 124	6	30
1,3,5-Trimethylbenzene			20.0	18.8		ug/L		94	75 - 120	4	30
Benzene			20.0	20.1		ug/L		100	80 - 120	2	30
Ethylbenzene			20.0	20.0		ug/L		100	80 - 120	4	30
Isopropylbenzene			20.0	18.0		ug/L		90	80 - 120	5	30
Methyl tert-butyl ether			20.0	18.3		ug/L		92	69 - 122	4	30
Naphthalene			20.0	15.4		ug/L		77	53 - 124	7	30
tert-Butyl alcohol			200	190		ug/L		95	60 - 130	3	30
Toluene			20.0	19.8		ug/L		99	80 - 120	4	30
Xylenes, Total			60.0	55.9		ug/L		93	80 - 120	5	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*80 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

Lab Sample ID: MB 410-122605/6
Matrix: Water
Analysis Batch: 122605

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/05/21 10:57	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/05/21 10:57	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/05/21 10:57	1
Benzene	ND		1.0	0.20	ug/L			05/05/21 10:57	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/05/21 10:57	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/05/21 10:57	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/05/21 10:57	1
tert-Butyl alcohol	ND		50	12	ug/L			05/05/21 10:57	1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-122605/6
Matrix: Water
Analysis Batch: 122605

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		1.0	0.20	ug/L			05/05/21 10:57	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/05/21 10:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*80 - 120*		*05/05/21 10:57*	*1*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*05/05/21 10:57*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*05/05/21 10:57*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/05/21 10:57*	*1*

Lab Sample ID: LCS 410-122605/4
Matrix: Water
Analysis Batch: 122605

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	20.0	19.1		ug/L		95	75 - 120
1,2-Dichloroethane	20.0	16.6		ug/L		83	73 - 124
1,3,5-Trimethylbenzene	20.0	19.2		ug/L		96	75 - 120
Benzene	20.0	20.0		ug/L		100	80 - 120
Ethylbenzene	20.0	19.2		ug/L		96	80 - 120
Isopropylbenzene	20.0	19.8		ug/L		99	80 - 120
Methyl tert-butyl ether	20.0	16.7		ug/L		84	69 - 122
Naphthalene	20.0	18.0		ug/L		90	53 - 124
tert-Butyl alcohol	200	201		ug/L		100	60 - 130
Toluene	20.0	20.3		ug/L		101	80 - 120
Xylenes, Total	60.0	59.6		ug/L		99	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*87*		*80 - 120*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Lab Sample ID: LCSD 410-122605/5
Matrix: Water
Analysis Batch: 122605

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene	20.0	19.5		ug/L		97	75 - 120	2	30
1,2-Dichloroethane	20.0	17.0		ug/L		85	73 - 124	2	30
1,3,5-Trimethylbenzene	20.0	19.4		ug/L		97	75 - 120	1	30
Benzene	20.0	20.5		ug/L		102	80 - 120	2	30
Ethylbenzene	20.0	19.6		ug/L		98	80 - 120	2	30
Isopropylbenzene	20.0	20.2		ug/L		101	80 - 120	2	30
Methyl tert-butyl ether	20.0	16.8		ug/L		84	69 - 122	1	30
Naphthalene	20.0	17.2		ug/L		86	53 - 124	5	30
tert-Butyl alcohol	200	204		ug/L		102	60 - 130	2	30
Toluene	20.0	20.7		ug/L		103	80 - 120	2	30
Xylenes, Total	60.0	61.3		ug/L		102	80 - 120	3	30

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-122605/5
Matrix: Water
Analysis Batch: 122605

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	87		80 - 120
4-Bromofluorobenzene (Surr)	93		80 - 120
Dibromofluoromethane (Surr)	101		80 - 120
Toluene-d8 (Surr)	102		80 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-120901/1-A
Matrix: Water
Analysis Batch: 121413

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 120901

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		04/30/21 09:55	05/02/21 13:41	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		04/30/21 09:55	05/02/21 13:41	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		04/30/21 09:55	05/02/21 13:41	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		04/30/21 09:55	05/02/21 13:41	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		04/30/21 09:55	05/02/21 13:41	1
Chrysene	ND		0.50	0.10	ug/L		04/30/21 09:55	05/02/21 13:41	1
Fluorene	ND		0.50	0.12	ug/L		04/30/21 09:55	05/02/21 13:41	1
Naphthalene	ND		0.50	0.10	ug/L		04/30/21 09:55	05/02/21 13:41	1
Phenanthrene	ND		0.50	0.11	ug/L		04/30/21 09:55	05/02/21 13:41	1
Pyrene	ND		0.50	0.10	ug/L		04/30/21 09:55	05/02/21 13:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	79		44 - 102	04/30/21 09:55	05/02/21 13:41	1
Nitrobenzene-d5 (Surr)	83		23 - 128	04/30/21 09:55	05/02/21 13:41	1
p-Terphenyl-d14 (Surr)	99		31 - 113	04/30/21 09:55	05/02/21 13:41	1

Lab Sample ID: LCS 410-120901/2-A
Matrix: Water
Analysis Batch: 121413

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 120901

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.0	45.6		ug/L		91	61 - 117
Benzo[a]anthracene	50.0	49.5		ug/L		99	61 - 126
Benzo[a]pyrene	50.0	52.1		ug/L		104	60 - 116
Benzo[b]fluoranthene	50.0	44.9		ug/L		90	61 - 119
Benzo[g,h,i]perylene	50.0	40.4		ug/L		81	54 - 120
Chrysene	50.0	49.6		ug/L		99	65 - 121
Fluorene	50.0	43.9		ug/L		88	56 - 115
Naphthalene	50.0	37.3		ug/L		75	51 - 102
Phenanthrene	50.0	45.4		ug/L		91	65 - 113
Pyrene	50.0	47.8		ug/L		96	65 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	75		44 - 102
Nitrobenzene-d5 (Surr)	76		23 - 128
p-Terphenyl-d14 (Surr)	97		31 - 113

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-121223/1-A
Matrix: Water
Analysis Batch: 121650

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 121223

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		04/30/21 18:49	05/03/21 16:38	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		04/30/21 18:49	05/03/21 16:38	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		04/30/21 18:49	05/03/21 16:38	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		04/30/21 18:49	05/03/21 16:38	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		04/30/21 18:49	05/03/21 16:38	1
Chrysene	ND		0.50	0.10	ug/L		04/30/21 18:49	05/03/21 16:38	1
Fluorene	ND		0.50	0.12	ug/L		04/30/21 18:49	05/03/21 16:38	1
Naphthalene	ND		0.50	0.10	ug/L		04/30/21 18:49	05/03/21 16:38	1
Phenanthrene	ND		0.50	0.11	ug/L		04/30/21 18:49	05/03/21 16:38	1
Pyrene	ND		0.50	0.10	ug/L		04/30/21 18:49	05/03/21 16:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*76*		*44 - 102*	*04/30/21 18:49*	*05/03/21 16:38*	*1*
Nitrobenzene-d5 (Surr)	*76*		*23 - 128*	*04/30/21 18:49*	*05/03/21 16:38*	*1*
p-Terphenyl-d14 (Surr)	*90*		*31 - 113*	*04/30/21 18:49*	*05/03/21 16:38*	*1*

Lab Sample ID: LCS 410-121223/2-A
Matrix: Water
Analysis Batch: 121650

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 121223

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.0	44.2		ug/L		88	61 - 117
Benzo[a]anthracene	50.0	48.3		ug/L		97	61 - 126
Benzo[a]pyrene	50.0	50.2		ug/L		100	60 - 116
Benzo[b]fluoranthene	50.0	41.9		ug/L		84	61 - 119
Benzo[g,h,i]perylene	50.0	45.5		ug/L		91	54 - 120
Chrysene	50.0	47.4		ug/L		95	65 - 121
Fluorene	50.0	43.0		ug/L		86	56 - 115
Naphthalene	50.0	39.1		ug/L		78	51 - 102
Phenanthrene	50.0	43.4		ug/L		87	65 - 113
Pyrene	50.0	44.3		ug/L		89	65 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*78*		*44 - 102*
Nitrobenzene-d5 (Surr)	*78*		*23 - 128*
p-Terphenyl-d14 (Surr)	*90*		*31 - 113*

Lab Sample ID: LCSD 410-121223/3-A
Matrix: Water
Analysis Batch: 121650

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 121223

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Anthracene	50.0	44.4		ug/L		89	61 - 117	0	30
Benzo[a]anthracene	50.0	50.9		ug/L		102	61 - 126	5	30
Benzo[a]pyrene	50.0	52.1		ug/L		104	60 - 116	4	30
Benzo[b]fluoranthene	50.0	42.8		ug/L		86	61 - 119	2	30
Benzo[g,h,i]perylene	50.0	46.8		ug/L		94	54 - 120	3	30
Chrysene	50.0	49.8		ug/L		100	65 - 121	5	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-121223/3-A
Matrix: Water
Analysis Batch: 121650

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 121223

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluorene			50.0	43.9		ug/L		88	56 - 115	2	30
Naphthalene			50.0	40.8		ug/L		82	51 - 102	4	30
Phenanthrene			50.0	43.9		ug/L		88	65 - 113	1	30
Pyrene			50.0	45.9		ug/L		92	65 - 115	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*79*		*44 - 102*
Nitrobenzene-d5 (Surr)	*80*		*23 - 128*
p-Terphenyl-d14 (Surr)	*94*		*31 - 113*

Lab Sample ID: MB 410-121280/1-A
Matrix: Water
Analysis Batch: 122149

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 121280

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/01/21 01:14	05/04/21 11:19	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/01/21 01:14	05/04/21 11:19	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/01/21 01:14	05/04/21 11:19	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/01/21 01:14	05/04/21 11:19	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/01/21 01:14	05/04/21 11:19	1
Chrysene	ND		0.50	0.10	ug/L		05/01/21 01:14	05/04/21 11:19	1
Fluorene	ND		0.50	0.12	ug/L		05/01/21 01:14	05/04/21 11:19	1
Naphthalene	ND		0.50	0.10	ug/L		05/01/21 01:14	05/04/21 11:19	1
Phenanthrene	ND		0.50	0.11	ug/L		05/01/21 01:14	05/04/21 11:19	1
Pyrene	ND		0.50	0.10	ug/L		05/01/21 01:14	05/04/21 11:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*62*		*44 - 102*	*05/01/21 01:14*	*05/04/21 11:19*	*1*
Nitrobenzene-d5 (Surr)	*59*		*23 - 128*	*05/01/21 01:14*	*05/04/21 11:19*	*1*
p-Terphenyl-d14 (Surr)	*84*		*31 - 113*	*05/01/21 01:14*	*05/04/21 11:19*	*1*

Lab Sample ID: LCS 410-121280/2-A
Matrix: Water
Analysis Batch: 122149

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 121280

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene			50.0	47.2		ug/L		94	61 - 117
Benzo[a]anthracene			50.0	48.5		ug/L		97	61 - 126
Benzo[a]pyrene			50.0	49.9		ug/L		100	60 - 116
Benzo[b]fluoranthene			50.0	46.2		ug/L		92	61 - 119
Benzo[g,h,i]perylene			50.0	54.3		ug/L		109	54 - 120
Chrysene			50.0	48.6		ug/L		97	65 - 121
Fluorene			50.0	44.4		ug/L		89	56 - 115
Naphthalene			50.0	41.1		ug/L		82	51 - 102
Phenanthrene			50.0	47.3		ug/L		95	65 - 113
Pyrene			50.0	47.8		ug/L		96	65 - 115

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-121280/2-A
Matrix: Water
Analysis Batch: 122149

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 121280

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*75*		*44 - 102*
Nitrobenzene-d5 (Surr)	*75*		*23 - 128*
p-Terphenyl-d14 (Surr)	*94*		*31 - 113*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-119343/1-A
Matrix: Water
Analysis Batch: 119350

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 119343

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		04/27/21 07:33	04/27/21 15:45	1
Ethene (1C)	ND		5.0	1.0	ug/L		04/27/21 07:33	04/27/21 15:45	1
Methane (1C)	ND		5.0	3.0	ug/L		04/27/21 07:33	04/27/21 15:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*106*		*28 - 140*	*04/27/21 07:33*	*04/27/21 15:45*	*1*

Lab Sample ID: LCS 410-119343/2-A
Matrix: Water
Analysis Batch: 119350

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 119343

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	60.8		ug/L		102	85 - 115		
Ethene (1C)			60.4	62.0		ug/L		103	83 - 115		
Methane (1C)			59.4	62.3		ug/L		105	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*108*		*28 - 140*

Lab Sample ID: LCSD 410-119343/3-A
Matrix: Water
Analysis Batch: 119350

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 119343

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	58.8		ug/L		99	85 - 115	3	20
Ethene (1C)			60.4	59.2		ug/L		98	83 - 115	5	20
Methane (1C)			59.4	60.7		ug/L		102	85 - 115	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*104*		*28 - 140*

Lab Sample ID: MB 410-119931/1-A
Matrix: Water
Analysis Batch: 119938

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 119931

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		04/28/21 08:13	04/28/21 08:47	1

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: MB 410-119931/1-A
Matrix: Water
Analysis Batch: 119938

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 119931

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethene (1C)	ND		5.0	1.0	ug/L		04/28/21 08:13	04/28/21 08:47	1
Methane (1C)	ND		5.0	3.0	ug/L		04/28/21 08:13	04/28/21 08:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*104*		*28 - 140*	*04/28/21 08:13*	*04/28/21 08:47*	*1*

Lab Sample ID: LCS 410-119931/2-A
Matrix: Water
Analysis Batch: 119938

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 119931

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	60.6		ug/L		102	85 - 115		
Ethene (1C)			60.4	61.4		ug/L		102	83 - 115		
Methane (1C)			59.4	63.0		ug/L		106	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*101*		*28 - 140*

Lab Sample ID: LCSD 410-119931/3-A
Matrix: Water
Analysis Batch: 119938

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 119931

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	60.0		ug/L		101	85 - 115	1	20
Ethene (1C)			60.4	60.9		ug/L		101	83 - 115	1	20
Methane (1C)			59.4	62.7		ug/L		105	85 - 115	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*102*		*28 - 140*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-119637/1-A
Matrix: Water
Analysis Batch: 120004

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 119637

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		04/27/21 16:35	04/28/21 10:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*90*		*46 - 136*	*04/27/21 16:35*	*04/28/21 10:55*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*86*		*46 - 136*	*04/27/21 16:35*	*04/28/21 10:55*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: LCS 410-119637/2-A
Matrix: Water
Analysis Batch: 120004

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 119637

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.148		ug/L		116	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*92*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*87*		*46 - 136*

Lab Sample ID: LCSD 410-119637/3-A
Matrix: Water
Analysis Batch: 120004

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 119637

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.153		ug/L		120	60 - 140	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*79*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*78*		*46 - 136*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 410-120107/4
Matrix: Water
Analysis Batch: 120107

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1000	300	ug/L			04/29/21 02:30	1

Lab Sample ID: LCS 410-120107/3
Matrix: Water
Analysis Batch: 120107

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			7500	7530		ug/L		100	90 - 110		

Lab Sample ID: MB 410-120349/4
Matrix: Water
Analysis Batch: 120349

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1000	300	ug/L			04/29/21 10:17	1

Lab Sample ID: LCS 410-120349/3
Matrix: Water
Analysis Batch: 120349

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			7500	7330		ug/L		98	90 - 110		

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 410-121172/4
Matrix: Water
Analysis Batch: 121172

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1000	300	ug/L			04/30/21 19:11	1

Lab Sample ID: LCS 410-121172/3
Matrix: Water
Analysis Batch: 121172

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	7500	7480		ug/L		100	90 - 110

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-119612/1-A
Matrix: Water
Analysis Batch: 121187

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 119612

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		500	96	ug/L		04/27/21 14:36	04/30/21 15:16	1
Iron	ND		200	40	ug/L		04/27/21 14:36	04/30/21 15:16	1

Lab Sample ID: LCS 410-119612/2-A
Matrix: Water
Analysis Batch: 121187

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 119612

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	400	451	J	ug/L		113	80 - 120
Iron	400	400		ug/L		100	80 - 120

Lab Sample ID: 410-37313-2 MS
Matrix: Water
Analysis Batch: 121187

Client Sample ID: S-394_20210423
Prep Type: Total Recoverable
Prep Batch: 119612

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	72000		400	73200	4	ug/L		249	75 - 125
Iron	31000		400	32800	4	ug/L		396	75 - 125

Lab Sample ID: 410-37313-2 MSD
Matrix: Water
Analysis Batch: 121187

Client Sample ID: S-394_20210423
Prep Type: Total Recoverable
Prep Batch: 119612

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	72000		400	72000	4	ug/L		-47	75 - 125	2	20
Iron	31000		400	32000	4	ug/L		187	75 - 125	3	20

Lab Sample ID: 410-37313-2 DU
Matrix: Water
Analysis Batch: 121187

Client Sample ID: S-394_20210423
Prep Type: Total Recoverable
Prep Batch: 119612

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Calcium	72000		77000		ug/L		7	20
Iron	31000		33800		ug/L		8	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 410-119714/1-A
Matrix: Water
Analysis Batch: 120100

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 119714

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		04/27/21 18:26	04/28/21 10:49	1

Lab Sample ID: LCS 410-119714/2-A
Matrix: Water
Analysis Batch: 120100

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 119714

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	30.0	30.4		ug/L		101	90 - 115

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 410-120654/22
Matrix: Water
Analysis Batch: 120654

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8000	8000	ug/L			04/28/21 18:41	1

Lab Sample ID: LCS 410-120654/25
Matrix: Water
Analysis Batch: 120654

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	189000	183000		ug/L		97	82 - 106

Method: 5310 B-2011 - Carbon, Total and Total Inorganic

Lab Sample ID: MB 410-121032/4
Matrix: Water
Analysis Batch: 121032

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Carbon	ND		1000	500	ug/L			04/29/21 14:30	1

Lab Sample ID: LCS 410-121032/3
Matrix: Water
Analysis Batch: 121032

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Carbon	25000	24300		ug/L		97	91 - 115

Method: 5310C-2011 - Total Organic Carbon/Persulfate - Ultrav

Lab Sample ID: MB 410-121341/5
Matrix: Water
Analysis Batch: 121341

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	500	ug/L			04/30/21 18:43	1

Method: 5310C-2011 - Total Organic Carbon/Persulfate - Ultrav (Continued)

Lab Sample ID: LCS 410-121341/4
Matrix: Water
Analysis Batch: 121341

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon			25000	25900		ug/L		104	91 - 113		

Lab Sample ID: MB 410-122812/5
Matrix: Water
Analysis Batch: 122812

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	500	ug/L			05/05/21 12:30	1

Lab Sample ID: LCS 410-122812/4
Matrix: Water
Analysis Batch: 122812

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon			25000	24500		ug/L		98	91 - 113		

Lab Sample ID: LCSD 410-122812/6
Matrix: Water
Analysis Batch: 122812

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon			25000	24300		ug/L		97	91 - 113	1	20

GC/MS VOA

Analysis Batch: 119662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37313-6	TB_20210426	Total/NA	Water	8260C/UST	
MB 410-119662/6	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-119662/4	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-119662/5	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

Analysis Batch: 121085

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37313-1	MW-44_20210423	Total/NA	Water	8260C/UST	
410-37313-1 - DL	MW-44_20210423	Total/NA	Water	8260C/UST	
410-37313-2	S-394_20210423	Total/NA	Water	8260C/UST	
410-37313-4	S-284D_20210423	Total/NA	Water	8260C/UST	
410-37313-5	FB_20210426	Total/NA	Water	8260C/UST	
MB 410-121085/6	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-121085/4	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-121085/5	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

Analysis Batch: 122605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37313-3	OW-20_20210423	Total/NA	Water	8260C/UST	
MB 410-122605/6	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-122605/4	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-122605/5	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

GC/MS Semi VOA

Prep Batch: 120901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37313-1 - DL	MW-44_20210423	Total/NA	Water	3510C	
410-37313-1	MW-44_20210423	Total/NA	Water	3510C	
MB 410-120901/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-120901/2-A	Lab Control Sample	Total/NA	Water	3510C	

Prep Batch: 121223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37313-2	S-394_20210423	Total/NA	Water	3510C	
410-37313-3	OW-20_20210423	Total/NA	Water	3510C	
410-37313-4	S-284D_20210423	Total/NA	Water	3510C	
MB 410-121223/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-121223/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-121223/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 121280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37313-5	FB_20210426	Total/NA	Water	3510C	
MB 410-121280/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-121280/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 121413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37313-1	MW-44_20210423	Total/NA	Water	8270D	120901
MB 410-120901/1-A	Method Blank	Total/NA	Water	8270D	120901

GC/MS Semi VOA (Continued)

Analysis Batch: 121413 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-120901/2-A	Lab Control Sample	Total/NA	Water	8270D	120901

Analysis Batch: 121650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37313-2	S-394_20210423	Total/NA	Water	8270D	121223
410-37313-3	OW-20_20210423	Total/NA	Water	8270D	121223
MB 410-121223/1-A	Method Blank	Total/NA	Water	8270D	121223
LCS 410-121223/2-A	Lab Control Sample	Total/NA	Water	8270D	121223
LCSD 410-121223/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	121223

Analysis Batch: 121996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37313-4	S-284D_20210423	Total/NA	Water	8270D	121223

Analysis Batch: 122149

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37313-5	FB_20210426	Total/NA	Water	8270D	121280
MB 410-121280/1-A	Method Blank	Total/NA	Water	8270D	121280
LCS 410-121280/2-A	Lab Control Sample	Total/NA	Water	8270D	121280

Analysis Batch: 123874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37313-1 - DL	MW-44_20210423	Total/NA	Water	8270D	120901

GC VOA

Prep Batch: 119343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37313-1	MW-44_20210423	Total/NA	Water	RSK-175	
410-37313-2	S-394_20210423	Total/NA	Water	RSK-175	
410-37313-3	OW-20_20210423	Total/NA	Water	RSK-175	
410-37313-4	S-284D_20210423	Total/NA	Water	RSK-175	
410-37313-5	FB_20210426	Total/NA	Water	RSK-175	
MB 410-119343/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-119343/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-119343/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 119350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37313-1	MW-44_20210423	Total/NA	Water	RSK-175	119343
410-37313-2	S-394_20210423	Total/NA	Water	RSK-175	119343
410-37313-3	OW-20_20210423	Total/NA	Water	RSK-175	119343
410-37313-4	S-284D_20210423	Total/NA	Water	RSK-175	119343
410-37313-5	FB_20210426	Total/NA	Water	RSK-175	119343
MB 410-119343/1-A	Method Blank	Total/NA	Water	RSK-175	119343
LCS 410-119343/2-A	Lab Control Sample	Total/NA	Water	RSK-175	119343
LCSD 410-119343/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	119343

Prep Batch: 119931

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37313-1 - DL	MW-44_20210423	Total/NA	Water	RSK-175	

GC VOA (Continued)

Prep Batch: 119931 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37313-3 - DL	OW-20_20210423	Total/NA	Water	RSK-175	
MB 410-119931/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-119931/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-119931/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 119938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37313-1 - DL	MW-44_20210423	Total/NA	Water	RSK-175	119931
410-37313-3 - DL	OW-20_20210423	Total/NA	Water	RSK-175	119931
MB 410-119931/1-A	Method Blank	Total/NA	Water	RSK-175	119931
LCS 410-119931/2-A	Lab Control Sample	Total/NA	Water	RSK-175	119931
LCSD 410-119931/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	119931

GC Semi VOA

Prep Batch: 119637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37313-1	MW-44_20210423	Total/NA	Water	8011	
410-37313-2	S-394_20210423	Total/NA	Water	8011	
410-37313-3	OW-20_20210423	Total/NA	Water	8011	
410-37313-4	S-284D_20210423	Total/NA	Water	8011	
410-37313-5	FB_20210426	Total/NA	Water	8011	
410-37313-6	TB_20210426	Total/NA	Water	8011	
MB 410-119637/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-119637/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-119637/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 120004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37313-1	MW-44_20210423	Total/NA	Water	8011	119637
410-37313-2	S-394_20210423	Total/NA	Water	8011	119637
410-37313-3	OW-20_20210423	Total/NA	Water	8011	119637
410-37313-4	S-284D_20210423	Total/NA	Water	8011	119637
410-37313-5	FB_20210426	Total/NA	Water	8011	119637
410-37313-6	TB_20210426	Total/NA	Water	8011	119637
MB 410-119637/1-A	Method Blank	Total/NA	Water	8011	119637
LCS 410-119637/2-A	Lab Control Sample	Total/NA	Water	8011	119637
LCSD 410-119637/3-A	Lab Control Sample Dup	Total/NA	Water	8011	119637

HPLC/IC

Analysis Batch: 120107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37313-1	MW-44_20210423	Total/NA	Water	EPA 300.0 R2.1	
410-37313-4	S-284D_20210423	Total/NA	Water	EPA 300.0 R2.1	
410-37313-5	FB_20210426	Total/NA	Water	EPA 300.0 R2.1	
MB 410-120107/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-120107/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 120349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37313-2	S-394_20210423	Total/NA	Water	EPA 300.0 R2.1	

HPLC/IC (Continued)

Analysis Batch: 120349 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-120349/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-120349/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 121172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37313-3	OW-20_20210423	Total/NA	Water	EPA 300.0 R2.1	
MB 410-121172/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-121172/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 119612

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37313-1	MW-44_20210423	Total Recoverable	Water	3005A	
410-37313-2	S-394_20210423	Total Recoverable	Water	3005A	
410-37313-3	OW-20_20210423	Total Recoverable	Water	3005A	
410-37313-4	S-284D_20210423	Total Recoverable	Water	3005A	
410-37313-5	FB_20210426	Total Recoverable	Water	3005A	
MB 410-119612/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-119612/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
410-37313-2 MS	S-394_20210423	Total Recoverable	Water	3005A	
410-37313-2 MSD	S-394_20210423	Total Recoverable	Water	3005A	
410-37313-2 DU	S-394_20210423	Total Recoverable	Water	3005A	

Prep Batch: 119714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37313-1	MW-44_20210423	Dissolved	Water	Non-Digest Prep	
410-37313-2	S-394_20210423	Dissolved	Water	Non-Digest Prep	
410-37313-3	OW-20_20210423	Dissolved	Water	Non-Digest Prep	
410-37313-4	S-284D_20210423	Dissolved	Water	Non-Digest Prep	
410-37313-5	FB_20210426	Dissolved	Water	Non-Digest Prep	
MB 410-119714/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-119714/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	

Analysis Batch: 120100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37313-1	MW-44_20210423	Dissolved	Water	6020A	119714
410-37313-2	S-394_20210423	Dissolved	Water	6020A	119714
410-37313-3	OW-20_20210423	Dissolved	Water	6020A	119714
410-37313-4	S-284D_20210423	Dissolved	Water	6020A	119714
410-37313-5	FB_20210426	Dissolved	Water	6020A	119714
MB 410-119714/1-A	Method Blank	Total/NA	Water	6020A	119714
LCS 410-119714/2-A	Lab Control Sample	Total/NA	Water	6020A	119714

Analysis Batch: 121187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37313-1	MW-44_20210423	Total Recoverable	Water	6010C	119612
410-37313-2	S-394_20210423	Total Recoverable	Water	6010C	119612
410-37313-3	OW-20_20210423	Total Recoverable	Water	6010C	119612
410-37313-4	S-284D_20210423	Total Recoverable	Water	6010C	119612
410-37313-5	FB_20210426	Total Recoverable	Water	6010C	119612

Metals (Continued)

Analysis Batch: 121187 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-119612/1-A	Method Blank	Total Recoverable	Water	6010C	119612
LCS 410-119612/2-A	Lab Control Sample	Total Recoverable	Water	6010C	119612
410-37313-2 MS	S-394_20210423	Total Recoverable	Water	6010C	119612
410-37313-2 MSD	S-394_20210423	Total Recoverable	Water	6010C	119612
410-37313-2 DU	S-394_20210423	Total Recoverable	Water	6010C	119612

Analysis Batch: 123589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37313-3	OW-20_20210423	Total Recoverable	Water	6010C	119612

General Chemistry

Prep Batch: 119572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37313-1	MW-44_20210423	Total/NA	Water	351.2	
410-37313-2	S-394_20210423	Total/NA	Water	351.2	
410-37313-3	OW-20_20210423	Total/NA	Water	351.2	
410-37313-4	S-284D_20210423	Total/NA	Water	351.2	
410-37313-5	FB_20210426	Total/NA	Water	351.2	

Analysis Batch: 120654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37313-1	MW-44_20210423	Total/NA	Water	2320B-2011	
410-37313-2	S-394_20210423	Total/NA	Water	2320B-2011	
410-37313-3	OW-20_20210423	Total/NA	Water	2320B-2011	
410-37313-4	S-284D_20210423	Total/NA	Water	2320B-2011	
410-37313-5	FB_20210426	Total/NA	Water	2320B-2011	
MB 410-120654/22	Method Blank	Total/NA	Water	2320B-2011	
LCS 410-120654/25	Lab Control Sample	Total/NA	Water	2320B-2011	

Analysis Batch: 121032

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37313-1	MW-44_20210423	Total/NA	Water	5310 B-2011	
410-37313-2	S-394_20210423	Total/NA	Water	5310 B-2011	
410-37313-3	OW-20_20210423	Total/NA	Water	5310 B-2011	
410-37313-4	S-284D_20210423	Total/NA	Water	5310 B-2011	
410-37313-5	FB_20210426	Total/NA	Water	5310 B-2011	
MB 410-121032/4	Method Blank	Total/NA	Water	5310 B-2011	
LCS 410-121032/3	Lab Control Sample	Total/NA	Water	5310 B-2011	

Analysis Batch: 121341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37313-1	MW-44_20210423	Total/NA	Water	5310C-2011	
410-37313-3	OW-20_20210423	Total/NA	Water	5310C-2011	
410-37313-4	S-284D_20210423	Total/NA	Water	5310C-2011	
410-37313-5	FB_20210426	Total/NA	Water	5310C-2011	
MB 410-121341/5	Method Blank	Total/NA	Water	5310C-2011	
LCS 410-121341/4	Lab Control Sample	Total/NA	Water	5310C-2011	

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37313-1

General Chemistry

Analysis Batch: 122713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37313-1	MW-44_20210423	Total/NA	Water	SM5310C	
410-37313-2	S-394_20210423	Total/NA	Water	SM5310C	
410-37313-3	OW-20_20210423	Total/NA	Water	SM5310C	
410-37313-4	S-284D_20210423	Total/NA	Water	SM5310C	
410-37313-5	FB_20210426	Total/NA	Water	SM5310C	

Analysis Batch: 122812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37313-2	S-394_20210423	Total/NA	Water	5310C-2011	
MB 410-122812/5	Method Blank	Total/NA	Water	5310C-2011	
LCS 410-122812/4	Lab Control Sample	Total/NA	Water	5310C-2011	
LCSD 410-122812/6	Lab Control Sample Dup	Total/NA	Water	5310C-2011	

Analysis Batch: 122847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37313-1	MW-44_20210423	Total/NA	Water	351.2	119572
410-37313-2	S-394_20210423	Total/NA	Water	351.2	119572
410-37313-3	OW-20_20210423	Total/NA	Water	351.2	119572
410-37313-4	S-284D_20210423	Total/NA	Water	351.2	119572
410-37313-5	FB_20210426	Total/NA	Water	351.2	119572

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37313-1

Client Sample ID: MW-44_20210423

Lab Sample ID: 410-37313-1

Date Collected: 04/23/21 08:40

Matrix: Water

Date Received: 04/26/21 15:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		10	121085	04/30/21 22:05	USEJ	ELLE
Total/NA	Analysis	8260C/UST	DL	100	121085	04/30/21 22:29	USEJ	ELLE
Total/NA	Prep	3510C			120901	04/30/21 09:55	QTH7	ELLE
Total/NA	Analysis	8270D		1	121413	05/02/21 20:27	W6XI	ELLE
Total/NA	Prep	3510C	DL		120901	04/30/21 09:55	QTH7	ELLE
Total/NA	Analysis	8270D	DL	10	123874	05/07/21 19:37	SJ89	ELLE
Total/NA	Prep	RSK-175			119343	04/27/21 07:33	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	119350	04/27/21 18:33	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		119931	04/28/21 08:13	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	100	119938	04/28/21 12:37	LXF2	ELLE
Total/NA	Prep	8011			119637	04/27/21 16:35	QQ3P	ELLE
Total/NA	Analysis	8011		1	120004	04/28/21 16:01	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		10	120107	04/29/21 04:10	GJ35	ELLE
Total Recoverable	Prep	3005A			119612	04/27/21 14:36	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	121187	04/30/21 16:18	MDP5	ELLE
Dissolved	Prep	Non-Digest Prep			119714	04/27/21 18:26	UJLA	ELLE
Dissolved	Analysis	6020A		1	120100	04/28/21 11:15	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	120654	04/28/21 20:01	DI9Q	ELLE
Total/NA	Prep	351.2			119572	04/27/21 13:27	F8AU	ELLE
Total/NA	Analysis	351.2		10	122847	05/05/21 10:59	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	121032	04/29/21 15:55	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		5	121341	05/01/21 00:45	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	122713	05/05/21 10:15	KGQ6	ELLE

Client Sample ID: S-394_20210423

Lab Sample ID: 410-37313-2

Date Collected: 04/23/21 10:00

Matrix: Water

Date Received: 04/26/21 15:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	121085	04/30/21 19:40	USEJ	ELLE
Total/NA	Prep	3510C			121223	04/30/21 18:49	K2IL	ELLE
Total/NA	Analysis	8270D		1	121650	05/03/21 22:55	WKV3	ELLE
Total/NA	Prep	RSK-175			119343	04/27/21 07:33	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	119350	04/27/21 18:52	LXF2	ELLE
Total/NA	Prep	8011			119637	04/27/21 16:35	QQ3P	ELLE
Total/NA	Analysis	8011		1	120004	04/28/21 16:18	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		50	120349	04/29/21 13:48	W5UX	ELLE
Total Recoverable	Prep	3005A			119612	04/27/21 14:36	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	121187	04/30/21 15:22	MDP5	ELLE
Dissolved	Prep	Non-Digest Prep			119714	04/27/21 18:26	UJLA	ELLE
Dissolved	Analysis	6020A		1	120100	04/28/21 11:19	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	120654	04/28/21 20:23	DI9Q	ELLE

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37313-1

Client Sample ID: S-394_20210423
Date Collected: 04/23/21 10:00
Date Received: 04/26/21 15:32

Lab Sample ID: 410-37313-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	351.2			119572	04/27/21 13:27	F8AU	ELLE
Total/NA	Analysis	351.2		1	122847	05/05/21 10:17	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	121032	04/29/21 16:28	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	122812	05/05/21 13:12	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	122713	05/05/21 10:15	KGQ6	ELLE

Client Sample ID: OW-20_20210423
Date Collected: 04/23/21 12:00
Date Received: 04/26/21 15:32

Lab Sample ID: 410-37313-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1000	122605	05/05/21 15:33	USEJ	ELLE
Total/NA	Prep	3510C			121223	04/30/21 18:49	K2IL	ELLE
Total/NA	Analysis	8270D		10	121650	05/03/21 23:24	WKV3	ELLE
Total/NA	Prep	RSK-175			119343	04/27/21 07:33	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	119350	04/27/21 19:10	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		119931	04/28/21 08:13	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	50	119938	04/28/21 12:56	LXF2	ELLE
Total/NA	Prep	8011			119637	04/27/21 16:35	QQ3P	ELLE
Total/NA	Analysis	8011		1	120004	04/28/21 16:35	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	121172	04/30/21 20:35	GJ35	ELLE
Total Recoverable	Prep	3005A			119612	04/27/21 14:36	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	121187	04/30/21 16:21	MDP5	ELLE
Total Recoverable	Prep	3005A			119612	04/27/21 14:36	UJLA	ELLE
Total Recoverable	Analysis	6010C		20	123589	05/06/21 22:53	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			119714	04/27/21 18:26	UJLA	ELLE
Dissolved	Analysis	6020A		1	120100	04/28/21 11:07	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	120654	04/28/21 20:17	DI9Q	ELLE
Total/NA	Prep	351.2			119572	04/27/21 13:27	F8AU	ELLE
Total/NA	Analysis	351.2		20	122847	05/05/21 10:15	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		50	121032	04/29/21 16:39	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		10	121341	05/01/21 01:13	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	122713	05/05/21 10:15	KGQ6	ELLE

Client Sample ID: S-284D_20210423
Date Collected: 04/23/21 13:50
Date Received: 04/26/21 15:32

Lab Sample ID: 410-37313-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	121085	04/30/21 20:04	USEJ	ELLE
Total/NA	Prep	3510C			121223	04/30/21 18:49	K2IL	ELLE
Total/NA	Analysis	8270D		1	121996	05/04/21 14:27	W6XI	ELLE
Total/NA	Prep	RSK-175			119343	04/27/21 07:33	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	119350	04/27/21 19:29	LXF2	ELLE

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37313-1

Client Sample ID: S-284D_20210423

Lab Sample ID: 410-37313-4

Date Collected: 04/23/21 13:50

Matrix: Water

Date Received: 04/26/21 15:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			119637	04/27/21 16:35	QQ3P	ELLE
Total/NA	Analysis	8011		1	120004	04/28/21 16:52	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	120107	04/29/21 04:43	GJ35	ELLE
Total Recoverable	Prep	3005A			119612	04/27/21 14:36	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	121187	04/30/21 16:12	MDP5	ELLE
Dissolved	Prep	Non-Digest Prep			119714	04/27/21 18:26	UJLA	ELLE
Dissolved	Analysis	6020A		1	120100	04/28/21 11:21	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	120654	04/28/21 20:30	DI9Q	ELLE
Total/NA	Prep	351.2			119572	04/27/21 13:27	F8AU	ELLE
Total/NA	Analysis	351.2		10	122847	05/05/21 10:21	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	121032	04/29/21 16:49	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	121341	04/30/21 23:06	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	122713	05/05/21 10:15	KGQ6	ELLE

Client Sample ID: FB_20210426

Lab Sample ID: 410-37313-5

Date Collected: 04/26/21 09:00

Matrix: Water

Date Received: 04/26/21 15:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	121085	04/30/21 14:27	USEJ	ELLE
Total/NA	Prep	3510C			121280	05/01/21 01:14	UKQ8	ELLE
Total/NA	Analysis	8270D		1	122149	05/04/21 13:19	SJ89	ELLE
Total/NA	Prep	RSK-175			119343	04/27/21 07:33	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	119350	04/27/21 19:48	LXF2	ELLE
Total/NA	Prep	8011			119637	04/27/21 16:35	QQ3P	ELLE
Total/NA	Analysis	8011		1	120004	04/28/21 17:09	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		1	120107	04/29/21 06:55	GJ35	ELLE
Total Recoverable	Prep	3005A			119612	04/27/21 14:36	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	121187	04/30/21 16:00	MDP5	ELLE
Dissolved	Prep	Non-Digest Prep			119714	04/27/21 18:26	UJLA	ELLE
Dissolved	Analysis	6020A		1	120100	04/28/21 11:17	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	120654	04/28/21 20:37	DI9Q	ELLE
Total/NA	Prep	351.2			119572	04/27/21 13:27	F8AU	ELLE
Total/NA	Analysis	351.2		1	122847	05/05/21 10:38	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		1	121032	04/29/21 17:00	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	121341	04/30/21 23:20	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	122713	05/05/21 10:15	KGQ6	ELLE

Client Sample ID: TB_20210426

Lab Sample ID: 410-37313-6

Date Collected: 04/12/21 00:00

Matrix: Water

Date Received: 04/26/21 15:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	119662	04/27/21 21:12	HDS6	ELLE

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37313-1

Client Sample ID: TB_20210426

Date Collected: 04/12/21 00:00
Date Received: 04/26/21 15:32

Lab Sample ID: 410-37313-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			119637	04/27/21 16:35	QQ3P	ELLE
Total/NA	Analysis	8011		1	120004	04/28/21 17:26	UAMZ	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp. Job ID: 410-37313-1
Project/Site: Former PES Annual GWS

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
5310 B-2011		Water	Total Carbon
SM5310C		Water	Total Inorganic Carbon

Method Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37313-1

Method	Method Description	Protocol	Laboratory
8260C/UST	Volatile Organic Compounds (GC/MS)	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
RSK-175	Dissolved Gases (GC)	RSK	ELLE
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	ELLE
6010C	Metals (ICP)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
2320B-2011	Alkalinity, Total	SM	ELLE
351.2	Nitrogen, Total Kjeldahl	MCAWW	ELLE
5310 B-2011	Carbon, Total and Total Inorganic	SM	ELLE
5310C-2011	Total Organic Carbon/Persulfate - Ultrav	SM	ELLE
SM5310C	Carbon, Total Inorganic	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
351.2	Nitrogen, Total Kjeldahl	MCAWW	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
8011	Microextraction	SW846	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37313-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-37313-1	MW-44_20210423	Water	04/23/21 08:40	04/26/21 15:32	
410-37313-2	S-394_20210423	Water	04/23/21 10:00	04/26/21 15:32	
410-37313-3	OW-20_20210423	Water	04/23/21 12:00	04/26/21 15:32	
410-37313-4	S-284D_20210423	Water	04/23/21 13:50	04/26/21 15:32	
410-37313-5	FB_20210426	Water	04/26/21 09:00	04/26/21 15:32	
410-37313-6	TB_20210426	Water	04/12/21 00:00	04/26/21 15:32	

En sis Request/Chain of Custody

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410-37313-01 Chain of Custody

Sample #

Client: Evergreen c/o Stantec			
Project Name/#: Former PES Annual GWS	Site ID #: 16657		
Project Manager: Andrew Bradley	P.O. #: 213403363		
Sampler: Dane Hopkins, Andrea Hill	PWSID #:		
Phone #: 610.840.2541	Quote #:		
State where sample(s) were collected: PA			

Matrix: Soil ☐ Sediment ☐ | Water ☑ Potable ☐ Ground ☐ NPDES ☐ Surface ☐ | Other: ☐ Trip Blank / Field Blank ☐

Analyses Requested — Preservation Codes

For Lab Use Only: SF #: _____ SCR #: _____

Sample Identification	Collection Date	Collection Time	Grab	Composite	Total # of Containers	Evergreen Petroleum Short List (refer to attached list of analytes)	Dissolved Lead (field filtered)	Total Inorganic Carbon (TIC)	Sulfate	Dissolved Headspace Gases (methane, ethane, ethene)	Total Iron	Total Calcium	Total Kjeldahl Nitrogen (TKN)	Alkalinity as CaCO3	VOC 8260 / EDB 8011	Remarks
						H / NP	N	P/NP	NP	H	N	N	S	NP	H	
MW-44_20210423	4/23/2021	8:40	X		18	X	X	X	X	X	X	X	X	X		
S-394_20210423	4/23/2021	10:00	X		18	X	X	X	X	X	X	X	X	X		
OW-20_202104223	4/23/2021	12:00	X		18	X	X	X	X	X	X	X	X	X		
S-284D_20210423	4/23/2021	13:50	X		18	X	X	X	X	X	X	X	X	X		
FB_20210426	4/26/2021	9:00	X		18	X	X	X	X	X	X	X	X	X		Field Blank
TB_20220426	4/12/2021	--	X		4										X	Trip Blank

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other; NP = Non-Preserved

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed:

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: abradley@stantec.com

Phone: 610.840.2541

Data Package Options (please check if required)

Type I (Validation/non-CLP) ☐ MA MCP ☐
Type III (Reduced non-CLP) ☐ CT RCP ☐
Type IV (CLP SOW) ☐ TX TRRP-13 ☐
Type VI (Raw Data Only) ☐

EDD Required? Yes ☑ No ☐ If yes, format: EQUIS

Relinquished by:	Date	Time	Received by:	Date	Time
	4/20/21	1250		4/26/21	1250
	4/26	1445		Date	Time
	Date	Time		Date	Time
	Date	Time		Date	Time
	Date	Time		Date	Time

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt 1.7-2.4 °C

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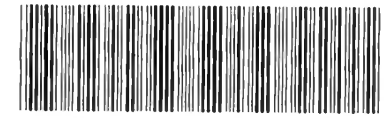
7045 0713



Evergreen Petroleum Short List (June 2016)

VOCs by EPA Method 8260	CAS No.
Benzene	71-43-2
Cumene	98-82-8
Dichloroethane, 1,2-	107-06-2
Ethylbenzene	100-41-4
Ethylene Dibromide*	106-93-4
Methyl tert butyl ether	1634-04-4
Toluene	108-88-3
Trimethylbenzene, 1,2,4-	95-63-6
Trimethylbenzene, 1,3,5-	108-67-8
Xylenes	1330-20-7

SVOCs by EPA Method 8270	CAS No.
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Chrysene	218-01-9
Fluorene	86-73-7
Naphthalene**	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Metals by Method 6010/6020	CAS No.
Lead***	7439-92-1

*Ethylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

**Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

***Metals analysis should be total in soil and dissolved in groundwater.

This list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline and No. 1, 2, 4, 5, 6 Fuel Oils).

Login Sample Receipt Checklist

Client: Stantec Consulting Corp. Job Number: 410-37313-1

Login Number: 37313 **List Source: Eurofins Lancaster Laboratories Env, LLC**
List Number: 1
Creator: Jeremiah, Cory T

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	True	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-37461-1
Client Project/Site: Former PES Annual GWS
Revision: 2

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Mr. Andrew Bradley

Authorized for release by:
5/26/2021 1:55:19 PM

Amek Carter, Project Manager
(717)556-7252
Loran.Carter@eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
5/26/2021 1:55:19 PM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 6
Detection Summary 7
Client Sample Results 10
Surrogate Summary 21
QC Sample Results 23
QC Association Summary 33
Lab Chronicle 39
Certification Summary 43
Method Summary 44
Sample Summary 45
Chain of Custody 46
Receipt Checklists 48

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37461-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

HPLC/IC

Qualifier	Qualifier Description
FH	MS and/or MSD recovery above control limits.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-37461-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-37461-1

Revision
The report being provided is a revision of the original report sent on 5/10/2021. The report (revision 2) is being revised due to: Calibration data was corrected for Ethylene Dibromide by 8011. The EDB results did not change.

Report revision history
Revision 1 - 5/24/2021 - Reason - t-Butyl alcohol was requested after the original report was generated.

Receipt
The samples were received on 4/27/2021 4:20 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.3º C and 0.5º C.

GC/MS VOA
Method 8260C/UST: The result for tert-Butyl alcohol was above the upper calibration range and is reported as an Estimated ("E") value in samples: S-13_20210426 (410-37461-1), DUP-3_20210426 (410-37461-2) and S-277_SL_20210426 (410-37461-6). This was due to being added after the time of analysis, and is the best analytical result achievable.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Field Service / Mobile Lab
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37461-1

Client Sample ID: S-13_20210426 — Lab Sample ID: 410-37461-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.9		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Methyl tert-butyl ether	180		1.0	0.20	ug/L	1		8260C/UST	Total/NA
tert-Butyl alcohol	1200	E	50	12	ug/L	1		8260C/UST	Total/NA
Methane (1C)	39		5.0	3.0	ug/L	1		RSK-175	Total/NA
Sulfate	52000	FH	10000	3000	ug/L	10		EPA 300.0 R2.1	Total/NA
Calcium	24000		500	96	ug/L	1		6010C	Total Recoverable
Iron	1500		200	40	ug/L	1		6010C	Total Recoverable
Lead	0.15	J	0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	83000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Carbon	46000		5000	2500	ug/L	5		5310 B-2011	Total/NA
Total Organic Carbon	7300		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	39000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: DUP-3_20210426 — Lab Sample ID: 410-37461-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2.0		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Methyl tert-butyl ether	200		1.0	0.20	ug/L	1		8260C/UST	Total/NA
tert-Butyl alcohol	1300	E	50	12	ug/L	1		8260C/UST	Total/NA
Toluene	0.22	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Methane (1C)	38		5.0	3.0	ug/L	1		RSK-175	Total/NA
Sulfate	48000		10000	3000	ug/L	10		EPA 300.0 R2.1	Total/NA
Calcium	24000		500	96	ug/L	1		6010C	Total Recoverable
Iron	1500		200	40	ug/L	1		6010C	Total Recoverable
Lead	0.088	J	0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	82000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Carbon	53000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	6900		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	46000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-20_20210426 — Lab Sample ID: 410-37461-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2.2		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Isopropylbenzene	14		5.0	0.20	ug/L	1		8260C/UST	Total/NA
Methyl tert-butyl ether	29		1.0	0.20	ug/L	1		8260C/UST	Total/NA
tert-Butyl alcohol	650		50	12	ug/L	1		8260C/UST	Total/NA
Toluene	1.8		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Xylenes, Total	4.9	J	6.0	1.4	ug/L	1		8260C/UST	Total/NA
Anthracene	0.27	J	0.61	0.12	ug/L	1		8270D	Total/NA
Fluorene	0.43	J	0.61	0.15	ug/L	1		8270D	Total/NA
Phenanthrene	0.39	J	0.61	0.13	ug/L	1		8270D	Total/NA
Ethane (1C)	4.8	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	9200		250	150	ug/L	50		RSK-175	Total/NA
Calcium	40000		500	96	ug/L	1		6010C	Total Recoverable
Iron	14000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	380000		8000	8000	ug/L	1		2320B-2011	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37461-1

Client Sample ID: S-20_20210426 (Continued) — Lab Sample ID: 410-37461-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Kjeldahl Nitrogen	9100		5000	2500	ug/L	5		351.2	Total/NA
Total Carbon	110000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	33000		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	77000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-199_SL_20210426 — Lab Sample ID: 410-37461-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	570		50	10	ug/L	10		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	190		50	3.0	ug/L	10		8260C/UST	Total/NA
Ethylbenzene	640		10	4.0	ug/L	10		8260C/UST	Total/NA
Isopropylbenzene	47	J	50	2.0	ug/L	10		8260C/UST	Total/NA
Toluene	1800		10	2.0	ug/L	10		8260C/UST	Total/NA
Xylenes, Total	2600		60	14	ug/L	10		8260C/UST	Total/NA
Benzene - DL	11000		100	20	ug/L	100		8260C/UST	Total/NA
Methyl tert-butyl ether - DL	15000		100	20	ug/L	100		8260C/UST	Total/NA
tert-Butyl alcohol - DL	56000		5000	1200	ug/L	100		8260C/UST	Total/NA
Anthracene	1.5		0.51	0.10	ug/L	1		8270D	Total/NA
Benzo[a]anthracene	0.29	J	0.51	0.10	ug/L	1		8270D	Total/NA
Benzo[a]pyrene	0.27	J	0.51	0.11	ug/L	1		8270D	Total/NA
Benzo[b]fluoranthene	0.22	J	0.51	0.10	ug/L	1		8270D	Total/NA
Chrysene	0.34	J	0.51	0.10	ug/L	1		8270D	Total/NA
Fluorene	6.5		0.51	0.12	ug/L	1		8270D	Total/NA
Phenanthrene	9.6		0.51	0.11	ug/L	1		8270D	Total/NA
Pyrene	1.4		0.51	0.10	ug/L	1		8270D	Total/NA
Naphthalene - DL	560		5.1	1.0	ug/L	10		8270D	Total/NA
Ethane (1C)	5.1		5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	18000		500	300	ug/L	100		RSK-175	Total/NA
Calcium	45000		500	96	ug/L	1		6010C	Total Recoverable
Iron	33000		200	40	ug/L	1		6010C	Total Recoverable
Lead	3.5		2.6	0.37	ug/L	5		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	380000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	4700		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	410000		25000	13000	ug/L	25		5310 B-2011	Total/NA
Total Organic Carbon	180000		10000	5000	ug/L	10		5310C-2011	Total/NA
Total Inorganic Carbon	230000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-69D_20210426 — Lab Sample ID: 410-37461-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.43	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Methyl tert-butyl ether	2.0		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Naphthalene	0.32	J	0.57	0.11	ug/L	1		8270D	Total/NA
Methane (1C)	47		5.0	3.0	ug/L	1		RSK-175	Total/NA
Sulfate	92000		20000	6000	ug/L	20		EPA 300.0 R2.1	Total/NA
Calcium	63000		500	96	ug/L	1		6010C	Total Recoverable
Iron	1800		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	310000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	4500		1000	500	ug/L	1		351.2	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37461-1

Client Sample ID: S-69D_20210426 (Continued) — Lab Sample ID: 410-37461-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Carbon	57000		5000	2500	ug/L	5		5310 B-2011	Total/NA
Total Organic Carbon	7700		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	49000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-277_SL_20210426 — Lab Sample ID: 410-37461-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	270		25	5.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	130		25	1.5	ug/L	5		8260C/UST	Total/NA
Ethylbenzene	140		5.0	2.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	48		25	1.0	ug/L	5		8260C/UST	Total/NA
Methyl tert-butyl ether	4700		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	1400		30	7.0	ug/L	5		8260C/UST	Total/NA
Benzene - DL	4800		50	10	ug/L	50		8260C/UST	Total/NA
tert-Butyl alcohol - DL	68000	E	2500	600	ug/L	50		8260C/UST	Total/NA
Toluene - DL	1400		50	10	ug/L	50		8260C/UST	Total/NA
Anthracene	0.24	J	0.50	0.10	ug/L	1		8270D	Total/NA
Fluorene	2.0		0.50	0.12	ug/L	1		8270D	Total/NA
Naphthalene	52		0.50	0.10	ug/L	1		8270D	Total/NA
Phenanthrene	1.5		0.50	0.11	ug/L	1		8270D	Total/NA
Ethane (1C)	4.8	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	19000		500	300	ug/L	100		RSK-175	Total/NA
Calcium	43000		500	96	ug/L	1		6010C	Total Recoverable
Iron	60000		200	40	ug/L	1		6010C	Total Recoverable
Lead	11		0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	340000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	1800		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	170000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	46000		5000	2500	ug/L	5		5310C-2011	Total/NA
Total Inorganic Carbon	120000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: TB_20210427 — Lab Sample ID: 410-37461-7

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: S-13_20210426

Date Collected: 04/26/21 08:00
Date Received: 04/27/21 16:20

Lab Sample ID: 410-37461-1

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			04/30/21 19:29	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			04/30/21 19:29	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			04/30/21 19:29	1
Benzene	**1.9**		1.0	0.20	ug/L			04/30/21 19:29	1
Ethylbenzene	ND		1.0	0.40	ug/L			04/30/21 19:29	1
Isopropylbenzene	ND		5.0	0.20	ug/L			04/30/21 19:29	1
Methyl tert-butyl ether	**180**		1.0	0.20	ug/L			04/30/21 19:29	1
tert-Butyl alcohol	**1200**	**E**	50	12	ug/L			04/30/21 19:29	1
Toluene	ND		1.0	0.20	ug/L			04/30/21 19:29	1
Xylenes, Total	ND		6.0	1.4	ug/L			04/30/21 19:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*80 - 120*		*04/30/21 19:29*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*04/30/21 19:29*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*04/30/21 19:29*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*04/30/21 19:29*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.58	0.12	ug/L		05/01/21 01:33	05/04/21 17:23	1
Benzo[a]anthracene	ND		0.58	0.12	ug/L		05/01/21 01:33	05/04/21 17:23	1
Benzo[a]pyrene	ND		0.58	0.13	ug/L		05/01/21 01:33	05/04/21 17:23	1
Benzo[b]fluoranthene	ND		0.58	0.12	ug/L		05/01/21 01:33	05/04/21 17:23	1
Benzo[g,h,i]perylene	ND		0.58	0.12	ug/L		05/01/21 01:33	05/04/21 17:23	1
Chrysene	ND		0.58	0.12	ug/L		05/01/21 01:33	05/04/21 17:23	1
Fluorene	ND		0.58	0.14	ug/L		05/01/21 01:33	05/04/21 17:23	1
Naphthalene	ND		0.58	0.12	ug/L		05/01/21 01:33	05/04/21 17:23	1
Phenanthrene	ND		0.58	0.13	ug/L		05/01/21 01:33	05/04/21 17:23	1
Pyrene	ND		0.58	0.12	ug/L		05/01/21 01:33	05/04/21 17:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*69*		*44 - 102*	*05/01/21 01:33*	*05/04/21 17:23*	*1*
Nitrobenzene-d5 (Surr)	*63*		*23 - 128*	*05/01/21 01:33*	*05/04/21 17:23*	*1*
p-Terphenyl-d14 (Surr)	*81*		*31 - 113*	*05/01/21 01:33*	*05/04/21 17:23*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		04/30/21 07:24	04/30/21 14:59	1
Ethene (1C)	ND		5.0	1.0	ug/L		04/30/21 07:24	04/30/21 14:59	1
Methane (1C)	**39**		5.0	3.0	ug/L		04/30/21 07:24	04/30/21 14:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*83*		*28 - 140*	*04/30/21 07:24*	*04/30/21 14:59*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.0099	ug/L		05/01/21 07:11	05/03/21 12:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*125*		*46 - 136*	*05/01/21 07:11*	*05/03/21 12:33*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*119*		*46 - 136*	*05/01/21 07:11*	*05/03/21 12:33*	*1*

Client Sample ID: S-13_20210426

Lab Sample ID: 410-37461-1

Date Collected: 04/26/21 08:00

Matrix: Water

Date Received: 04/27/21 16:20

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**52000**	**FH**	10000	3000	ug/L			04/30/21 16:51	10

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**24000**		500	96	ug/L		04/28/21 13:24	04/29/21 08:42	1
Iron	**1500**		200	40	ug/L		04/28/21 13:24	04/29/21 08:42	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.15**	**J**	0.52	0.073	ug/L		04/28/21 12:17	04/28/21 15:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**83000**		8000	8000	ug/L			04/28/21 21:10	1
Total Kjeldahl Nitrogen	ND		1000	500	ug/L		05/04/21 14:42	05/10/21 10:11	1
Total Carbon	**46000**		5000	2500	ug/L			04/29/21 17:11	5
Total Organic Carbon	**7300**		1000	500	ug/L			05/01/21 11:31	1
Total Inorganic Carbon	**39000**		2000	600	ug/L			05/05/21 10:15	1

Client Sample ID: DUP-3_20210426

Lab Sample ID: 410-37461-2

Date Collected: 04/26/21 08:00

Matrix: Water

Date Received: 04/27/21 16:20

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			04/30/21 19:53	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			04/30/21 19:53	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			04/30/21 19:53	1
Benzene	**2.0**		1.0	0.20	ug/L			04/30/21 19:53	1
Ethylbenzene	ND		1.0	0.40	ug/L			04/30/21 19:53	1
Isopropylbenzene	ND		5.0	0.20	ug/L			04/30/21 19:53	1
Methyl tert-butyl ether	**200**		1.0	0.20	ug/L			04/30/21 19:53	1
tert-Butyl alcohol	**1300**	**E**	50	12	ug/L			04/30/21 19:53	1
Toluene	**0.22**	**J**	1.0	0.20	ug/L			04/30/21 19:53	1
Xylenes, Total	ND		6.0	1.4	ug/L			04/30/21 19:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*80 - 120*		*04/30/21 19:53*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*04/30/21 19:53*	*1*
Dibromofluoromethane (Surr)	*99*		*80 - 120*		*04/30/21 19:53*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*04/30/21 19:53*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.52	0.10	ug/L		05/01/21 01:33	05/04/21 17:51	1
Benzo[a]anthracene	ND		0.52	0.10	ug/L		05/01/21 01:33	05/04/21 17:51	1
Benzo[a]pyrene	ND		0.52	0.11	ug/L		05/01/21 01:33	05/04/21 17:51	1
Benzo[b]fluoranthene	ND		0.52	0.10	ug/L		05/01/21 01:33	05/04/21 17:51	1
Benzo[g,h,i]perylene	ND		0.52	0.10	ug/L		05/01/21 01:33	05/04/21 17:51	1
Chrysene	ND		0.52	0.10	ug/L		05/01/21 01:33	05/04/21 17:51	1
Fluorene	ND		0.52	0.12	ug/L		05/01/21 01:33	05/04/21 17:51	1

Client Sample ID: DUP-3_20210426

Date Collected: 04/26/21 08:00
Date Received: 04/27/21 16:20

Lab Sample ID: 410-37461-2

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.52	0.10	ug/L		05/01/21 01:33	05/04/21 17:51	1
Phenanthrene	ND		0.52	0.11	ug/L		05/01/21 01:33	05/04/21 17:51	1
Pyrene	ND		0.52	0.10	ug/L		05/01/21 01:33	05/04/21 17:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*59*		*44 - 102*	*05/01/21 01:33*	*05/04/21 17:51*	*1*
Nitrobenzene-d5 (Surr)	*55*		*23 - 128*	*05/01/21 01:33*	*05/04/21 17:51*	*1*
p-Terphenyl-d14 (Surr)	*70*		*31 - 113*	*05/01/21 01:33*	*05/04/21 17:51*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		04/30/21 07:24	04/30/21 15:18	1
Ethene (1C)	ND		5.0	1.0	ug/L		04/30/21 07:24	04/30/21 15:18	1
Methane (1C)	**38**		5.0	3.0	ug/L		04/30/21 07:24	04/30/21 15:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*84*		*28 - 140*	*04/30/21 07:24*	*04/30/21 15:18*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0096	ug/L		05/01/21 07:11	05/03/21 12:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*116*		*46 - 136*	*05/01/21 07:11*	*05/03/21 12:50*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*114*		*46 - 136*	*05/01/21 07:11*	*05/03/21 12:50*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**48000**		10000	3000	ug/L			04/30/21 17:37	10

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**24000**		500	96	ug/L		04/28/21 13:24	04/29/21 08:32	1
Iron	**1500**		200	40	ug/L		04/28/21 13:24	04/29/21 08:32	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.088**	**J**	0.52	0.073	ug/L		04/28/21 12:17	04/28/21 15:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**82000**		8000	8000	ug/L			04/28/21 21:15	1
Total Kjeldahl Nitrogen	ND		1000	500	ug/L		05/04/21 14:42	05/10/21 10:13	1
Total Carbon	**53000**		10000	5000	ug/L			04/29/21 17:43	10
Total Organic Carbon	**6900**		1000	500	ug/L			05/01/21 11:45	1
Total Inorganic Carbon	**46000**		2000	600	ug/L			05/05/21 10:15	1

Client Sample ID: S-20_20210426

Date Collected: 04/26/21 09:30
Date Received: 04/27/21 16:20

Lab Sample ID: 410-37461-3

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			04/30/21 20:17	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			04/30/21 20:17	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			04/30/21 20:17	1
Benzene	**2.2**		1.0	0.20	ug/L			04/30/21 20:17	1
Ethylbenzene	ND		1.0	0.40	ug/L			04/30/21 20:17	1
Isopropylbenzene	**14**		5.0	0.20	ug/L			04/30/21 20:17	1
Methyl tert-butyl ether	**29**		1.0	0.20	ug/L			04/30/21 20:17	1
tert-Butyl alcohol	**650**		50	12	ug/L			04/30/21 20:17	1
Toluene	**1.8**		1.0	0.20	ug/L			04/30/21 20:17	1
Xylenes, Total	**4.9**	**J**	6.0	1.4	ug/L			04/30/21 20:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*80 - 120*		*04/30/21 20:17*	*1*
4-Bromofluorobenzene (Surr)	*108*		*80 - 120*		*04/30/21 20:17*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*04/30/21 20:17*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*04/30/21 20:17*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**0.27**	**J**	0.61	0.12	ug/L		05/01/21 01:33	05/04/21 18:20	1
Benzo[a]anthracene	ND		0.61	0.12	ug/L		05/01/21 01:33	05/04/21 18:20	1
Benzo[a]pyrene	ND		0.61	0.13	ug/L		05/01/21 01:33	05/04/21 18:20	1
Benzo[b]fluoranthene	ND		0.61	0.12	ug/L		05/01/21 01:33	05/04/21 18:20	1
Benzo[g,h,i]perylene	ND		0.61	0.12	ug/L		05/01/21 01:33	05/04/21 18:20	1
Chrysene	ND		0.61	0.12	ug/L		05/01/21 01:33	05/04/21 18:20	1
Fluorene	**0.43**	**J**	0.61	0.15	ug/L		05/01/21 01:33	05/04/21 18:20	1
Naphthalene	ND		0.61	0.12	ug/L		05/01/21 01:33	05/04/21 18:20	1
Phenanthrene	**0.39**	**J**	0.61	0.13	ug/L		05/01/21 01:33	05/04/21 18:20	1
Pyrene	ND		0.61	0.12	ug/L		05/01/21 01:33	05/04/21 18:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*59*		*44 - 102*	*05/01/21 01:33*	*05/04/21 18:20*	*1*
Nitrobenzene-d5 (Surr)	*54*		*23 - 128*	*05/01/21 01:33*	*05/04/21 18:20*	*1*
p-Terphenyl-d14 (Surr)	*76*		*31 - 113*	*05/01/21 01:33*	*05/04/21 18:20*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**4.8**	**J**	5.0	1.0	ug/L		04/30/21 07:24	04/30/21 15:36	1
Ethene (1C)	ND		5.0	1.0	ug/L		04/30/21 07:24	04/30/21 15:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*86*		*28 - 140*	*04/30/21 07:24*	*04/30/21 15:36*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**9200**		250	150	ug/L		05/03/21 07:24	05/03/21 10:32	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*106*		*28 - 140*	*05/03/21 07:24*	*05/03/21 10:32*	*50*

Client Sample ID: S-20_20210426

Lab Sample ID: 410-37461-3

Date Collected: 04/26/21 09:30

Matrix: Water

Date Received: 04/27/21 16:20

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0096	ug/L		05/01/21 07:11	05/03/21 13:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*124*		*46 - 136*	*05/01/21 07:11*	*05/03/21 13:07*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*116*		*46 - 136*	*05/01/21 07:11*	*05/03/21 13:07*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			04/30/21 17:53	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**40000**		500	96	ug/L		04/28/21 13:24	04/29/21 08:45	1
Iron	**14000**		200	40	ug/L		04/28/21 13:24	04/29/21 08:45	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		04/28/21 12:17	04/28/21 15:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**380000**		8000	8000	ug/L			04/28/21 20:50	1
Total Kjeldahl Nitrogen	**9100**		5000	2500	ug/L		05/04/21 14:42	05/10/21 10:15	5
Total Carbon	**110000**		10000	5000	ug/L			04/29/21 17:54	10
Total Organic Carbon	**33000**		1000	500	ug/L			05/01/21 12:27	1
Total Inorganic Carbon	**77000**		2000	600	ug/L			05/05/21 10:15	1

Client Sample ID: S-199_SL_20210426

Lab Sample ID: 410-37461-4

Date Collected: 04/26/21 09:25

Matrix: Water

Date Received: 04/27/21 16:20

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**570**		50	10	ug/L			04/30/21 22:18	10
1,2-Dichloroethane	ND		10	3.0	ug/L			04/30/21 22:18	10
1,3,5-Trimethylbenzene	**190**		50	3.0	ug/L			04/30/21 22:18	10
Ethylbenzene	**640**		10	4.0	ug/L			04/30/21 22:18	10
Isopropylbenzene	**47**	**J**	50	2.0	ug/L			04/30/21 22:18	10
Toluene	**1800**		10	2.0	ug/L			04/30/21 22:18	10
Xylenes, Total	**2600**		60	14	ug/L			04/30/21 22:18	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*80 - 120*		*04/30/21 22:18*	*10*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*04/30/21 22:18*	*10*
Dibromofluoromethane (Surr)	*94*		*80 - 120*		*04/30/21 22:18*	*10*
Toluene-d8 (Surr)	*102*		*80 - 120*		*04/30/21 22:18*	*10*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**11000**		100	20	ug/L			04/30/21 22:42	100
Methyl tert-butyl ether	**15000**		100	20	ug/L			04/30/21 22:42	100
tert-Butyl alcohol	**56000**		5000	1200	ug/L			04/30/21 22:42	100

Client Sample ID: S-199_SL_20210426

Date Collected: 04/26/21 09:25
Date Received: 04/27/21 16:20

Lab Sample ID: 410-37461-4

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*96*		*80 - 120*		*04/30/21 22:42*	*100*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*04/30/21 22:42*	*100*
Dibromofluoromethane (Surr)	*93*		*80 - 120*		*04/30/21 22:42*	*100*
Toluene-d8 (Surr)	*107*		*80 - 120*		*04/30/21 22:42*	*100*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**1.5**		0.51	0.10	ug/L		05/03/21 15:45	05/04/21 19:16	1
Benzo[a]anthracene	**0.29**	**J**	0.51	0.10	ug/L		05/03/21 15:45	05/04/21 19:16	1
Benzo[a]pyrene	**0.27**	**J**	0.51	0.11	ug/L		05/03/21 15:45	05/04/21 19:16	1
Benzo[b]fluoranthene	**0.22**	**J**	0.51	0.10	ug/L		05/03/21 15:45	05/04/21 19:16	1
Benzo[g,h,i]perylene	ND		0.51	0.10	ug/L		05/03/21 15:45	05/04/21 19:16	1
Chrysene	**0.34**	**J**	0.51	0.10	ug/L		05/03/21 15:45	05/04/21 19:16	1
Fluorene	**6.5**		0.51	0.12	ug/L		05/03/21 15:45	05/04/21 19:16	1
Phenanthrene	**9.6**		0.51	0.11	ug/L		05/03/21 15:45	05/04/21 19:16	1
Pyrene	**1.4**		0.51	0.10	ug/L		05/03/21 15:45	05/04/21 19:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	*46*		*44 - 102*	*05/03/21 15:45*	*05/04/21 19:16*	*1*
Nitrobenzene-d5 (Surr)	*70*		*23 - 128*	*05/03/21 15:45*	*05/04/21 19:16*	*1*
p-Terphenyl-d14 (Surr)	*44*		*31 - 113*	*05/03/21 15:45*	*05/04/21 19:16*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**560**		5.1	1.0	ug/L		05/03/21 15:45	05/04/21 23:02	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	*63*		*44 - 102*	*05/03/21 15:45*	*05/04/21 23:02*	*10*
Nitrobenzene-d5 (Surr)	*64*		*23 - 128*	*05/03/21 15:45*	*05/04/21 23:02*	*10*
p-Terphenyl-d14 (Surr)	*44*		*31 - 113*	*05/03/21 15:45*	*05/04/21 23:02*	*10*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**5.1**		5.0	1.0	ug/L		04/30/21 07:24	04/30/21 15:55	1
Ethene (1C)	ND		5.0	1.0	ug/L		04/30/21 07:24	04/30/21 15:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Propene (1C)	*85*		*28 - 140*	*04/30/21 07:24*	*04/30/21 15:55*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**18000**		500	300	ug/L		05/03/21 07:24	05/03/21 10:51	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Propene (1C)	*108*		*28 - 140*	*05/03/21 07:24*	*05/03/21 10:51*	*100*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (2C)	ND		0.082	0.082	ug/L		05/01/21 07:11	05/03/21 13:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane (Surr) (1C)	*80*		*46 - 136*	*05/01/21 07:11*	*05/03/21 13:23*	*1*

Client Sample ID: S-199_SL_20210426

Date Collected: 04/26/21 09:25
Date Received: 04/27/21 16:20

Lab Sample ID: 410-37461-4

Matrix: Water

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*98*		*46 - 136*	*05/01/21 07:11*	*05/03/21 13:23*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			04/30/21 18:09	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**45000**		500	96	ug/L		04/28/21 13:24	04/29/21 08:48	1
Iron	**33000**		200	40	ug/L		04/28/21 13:24	04/29/21 08:48	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**3.5**		2.6	0.37	ug/L		04/28/21 12:17	04/28/21 15:27	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**380000**		8000	8000	ug/L			04/28/21 20:43	1
Total Kjeldahl Nitrogen	**4700**		1000	500	ug/L		05/04/21 14:42	05/10/21 10:17	1
Total Carbon	**410000**		25000	13000	ug/L			04/29/21 18:05	25
Total Organic Carbon	**180000**		10000	5000	ug/L			05/07/21 14:24	10
Total Inorganic Carbon	**230000**		2000	600	ug/L			05/10/21 15:12	1

Client Sample ID: S-69D_20210426

Date Collected: 04/26/21 13:32
Date Received: 04/27/21 16:20

Lab Sample ID: 410-37461-5

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			04/30/21 20:41	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			04/30/21 20:41	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			04/30/21 20:41	1
Benzene	**0.43**	**J**	1.0	0.20	ug/L			04/30/21 20:41	1
Ethylbenzene	ND		1.0	0.40	ug/L			04/30/21 20:41	1
Isopropylbenzene	ND		5.0	0.20	ug/L			04/30/21 20:41	1
Methyl tert-butyl ether	**2.0**		1.0	0.20	ug/L			04/30/21 20:41	1
tert-Butyl alcohol	ND		50	12	ug/L			04/30/21 20:41	1
Toluene	ND		1.0	0.20	ug/L			04/30/21 20:41	1
Xylenes, Total	ND		6.0	1.4	ug/L			04/30/21 20:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 120*		*04/30/21 20:41*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*04/30/21 20:41*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*04/30/21 20:41*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*04/30/21 20:41*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.57	0.11	ug/L		05/03/21 15:45	05/04/21 19:44	1
Benzo[a]anthracene	ND		0.57	0.11	ug/L		05/03/21 15:45	05/04/21 19:44	1
Benzo[a]pyrene	ND		0.57	0.12	ug/L		05/03/21 15:45	05/04/21 19:44	1

Client Sample ID: S-69D_20210426

Date Collected: 04/26/21 13:32
Date Received: 04/27/21 16:20

Lab Sample ID: 410-37461-5

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	ND		0.57	0.11	ug/L		05/03/21 15:45	05/04/21 19:44	1
Benzo[g,h,i]perylene	ND		0.57	0.11	ug/L		05/03/21 15:45	05/04/21 19:44	1
Chrysene	ND		0.57	0.11	ug/L		05/03/21 15:45	05/04/21 19:44	1
Fluorene	ND		0.57	0.14	ug/L		05/03/21 15:45	05/04/21 19:44	1
Naphthalene	**0.32**	**J**	0.57	0.11	ug/L		05/03/21 15:45	05/04/21 19:44	1
Phenanthrene	ND		0.57	0.12	ug/L		05/03/21 15:45	05/04/21 19:44	1
Pyrene	ND		0.57	0.11	ug/L		05/03/21 15:45	05/04/21 19:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*77*		*44 - 102*	*05/03/21 15:45*	*05/04/21 19:44*	*1*
Nitrobenzene-d5 (Surr)	*78*		*23 - 128*	*05/03/21 15:45*	*05/04/21 19:44*	*1*
p-Terphenyl-d14 (Surr)	*72*		*31 - 113*	*05/03/21 15:45*	*05/04/21 19:44*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		04/30/21 07:24	04/30/21 16:14	1
Ethene (1C)	ND		5.0	1.0	ug/L		04/30/21 07:24	04/30/21 16:14	1
Methane (1C)	**47**		5.0	3.0	ug/L		04/30/21 07:24	04/30/21 16:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*93*		*28 - 140*	*04/30/21 07:24*	*04/30/21 16:14*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0096	ug/L		05/01/21 07:11	05/03/21 13:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*98*		*46 - 136*	*05/01/21 07:11*	*05/03/21 13:40*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*101*		*46 - 136*	*05/01/21 07:11*	*05/03/21 13:40*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**92000**		20000	6000	ug/L			04/30/21 18:24	20

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**63000**		500	96	ug/L		04/28/21 13:24	04/29/21 08:38	1
Iron	**1800**		200	40	ug/L		04/28/21 13:24	04/29/21 08:38	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		04/28/21 12:17	04/28/21 14:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**310000**		8000	8000	ug/L			04/28/21 21:04	1
Total Kjeldahl Nitrogen	**4500**		1000	500	ug/L		05/04/21 14:42	05/10/21 10:19	1
Total Carbon	**57000**		5000	2500	ug/L			04/29/21 18:37	5
Total Organic Carbon	**7700**		1000	500	ug/L			05/01/21 12:55	1
Total Inorganic Carbon	**49000**		2000	600	ug/L			05/05/21 10:15	1

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37461-1

Client Sample ID: S-277_SL_20210426

Date Collected: 04/26/21 12:50
Date Received: 04/27/21 16:20

Lab Sample ID: 410-37461-6

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**270**		25	5.0	ug/L			04/30/21 23:06	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			04/30/21 23:06	5
1,3,5-Trimethylbenzene	**130**		25	1.5	ug/L			04/30/21 23:06	5
Ethylbenzene	**140**		5.0	2.0	ug/L			04/30/21 23:06	5
Isopropylbenzene	**48**		25	1.0	ug/L			04/30/21 23:06	5
Methyl tert-butyl ether	**4700**		5.0	1.0	ug/L			04/30/21 23:06	5
Xylenes, Total	**1400**		30	7.0	ug/L			04/30/21 23:06	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 120*		*04/30/21 23:06*	*5*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*04/30/21 23:06*	*5*
Dibromofluoromethane (Surr)	*93*		*80 - 120*		*04/30/21 23:06*	*5*
Toluene-d8 (Surr)	*104*		*80 - 120*		*04/30/21 23:06*	*5*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**4800**		50	10	ug/L			04/30/21 23:30	50
tert-Butyl alcohol	**68000**	**E**	2500	600	ug/L			04/30/21 23:30	50
Toluene	**1400**		50	10	ug/L			04/30/21 23:30	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*80 - 120*		*04/30/21 23:30*	*50*
4-Bromofluorobenzene (Surr)	*107*		*80 - 120*		*04/30/21 23:30*	*50*
Dibromofluoromethane (Surr)	*93*		*80 - 120*		*04/30/21 23:30*	*50*
Toluene-d8 (Surr)	*107*		*80 - 120*		*04/30/21 23:30*	*50*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**0.24**	**J**	0.50	0.10	ug/L		05/03/21 15:45	05/04/21 20:12	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/03/21 15:45	05/04/21 20:12	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/03/21 15:45	05/04/21 20:12	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/03/21 15:45	05/04/21 20:12	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/03/21 15:45	05/04/21 20:12	1
Chrysene	ND		0.50	0.10	ug/L		05/03/21 15:45	05/04/21 20:12	1
Fluorene	**2.0**		0.50	0.12	ug/L		05/03/21 15:45	05/04/21 20:12	1
Naphthalene	**52**		0.50	0.10	ug/L		05/03/21 15:45	05/04/21 20:12	1
Phenanthrene	**1.5**		0.50	0.11	ug/L		05/03/21 15:45	05/04/21 20:12	1
Pyrene	ND		0.50	0.10	ug/L		05/03/21 15:45	05/04/21 20:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*76*		*44 - 102*	*05/03/21 15:45*	*05/04/21 20:12*	*1*
Nitrobenzene-d5 (Surr)	*5*	*S1-*	*23 - 128*	*05/03/21 15:45*	*05/04/21 20:12*	*1*
p-Terphenyl-d14 (Surr)	*85*		*31 - 113*	*05/03/21 15:45*	*05/04/21 20:12*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**4.8**	**J**	5.0	1.0	ug/L		04/30/21 07:24	04/30/21 16:32	1
Ethene (1C)	ND		5.0	1.0	ug/L		04/30/21 07:24	04/30/21 16:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*85*		*28 - 140*	*04/30/21 07:24*	*04/30/21 16:32*	*1*

Client Sample ID: S-277_SL_20210426

Lab Sample ID: 410-37461-6
Matrix: Water
Date Collected: 04/26/21 12:50
Date Received: 04/27/21 16:20

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	19000		500	300	ug/L		05/03/21 07:24	05/03/21 11:28	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*108*		*28 - 140*	*05/03/21 07:24*	*05/03/21 11:28*	*100*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0096	ug/L		05/01/21 07:11	05/03/21 14:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*150*	*S1+*	*46 - 136*	*05/01/21 07:11*	*05/03/21 14:30*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*125*		*46 - 136*	*05/01/21 07:11*	*05/03/21 14:30*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			04/30/21 18:40	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	43000		500	96	ug/L		04/28/21 13:24	04/29/21 08:35	1
Iron	60000		200	40	ug/L		04/28/21 13:24	04/29/21 08:35	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	11		0.52	0.073	ug/L		04/28/21 12:17	04/28/21 15:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	340000		8000	8000	ug/L			04/28/21 20:58	1
Total Kjeldahl Nitrogen	1800		1000	500	ug/L		05/04/21 14:42	05/10/21 10:00	1
Total Carbon	170000		10000	5000	ug/L			04/29/21 18:48	10
Total Organic Carbon	46000		5000	2500	ug/L			05/01/21 13:10	5
Total Inorganic Carbon	120000		2000	600	ug/L			05/05/21 10:15	1

Client Sample ID: TB_20210427

Lab Sample ID: 410-37461-7
Matrix: Water
Date Collected: 04/27/21 00:00
Date Received: 04/27/21 16:20

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			04/30/21 14:16	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			04/30/21 14:16	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			04/30/21 14:16	1
Benzene	ND		1.0	0.20	ug/L			04/30/21 14:16	1
Ethylbenzene	ND		1.0	0.40	ug/L			04/30/21 14:16	1
Isopropylbenzene	ND		5.0	0.20	ug/L			04/30/21 14:16	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			04/30/21 14:16	1
tert-Butyl alcohol	ND		50	12	ug/L			04/30/21 14:16	1
Toluene	ND		1.0	0.20	ug/L			04/30/21 14:16	1
Xylenes, Total	ND		6.0	1.4	ug/L			04/30/21 14:16	1

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37461-1

Client Sample ID: TB_20210427
Date Collected: 04/27/21 00:00
Date Received: 04/27/21 16:20

Lab Sample ID: 410-37461-7
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*		*04/30/21 14:16*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*04/30/21 14:16*	*1*
Dibromofluoromethane (Surr)	*99*		*80 - 120*		*04/30/21 14:16*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*04/30/21 14:16*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0097	ug/L		05/01/21 07:11	05/03/21 14:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*112*		*46 - 136*	*05/01/21 07:11*	*05/03/21 14:47*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*105*		*46 - 136*	*05/01/21 07:11*	*05/03/21 14:47*	*1*

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37461-1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-37461-1	S-13_20210426	96	102	97	103
410-37461-2	DUP-3_20210426	97	100	99	102
410-37461-3	S-20_20210426	95	108	96	104
410-37461-4	S-199_SL_20210426	97	104	94	102
410-37461-4 - DL	S-199_SL_20210426	96	104	93	107
410-37461-5	S-69D_20210426	98	100	98	102
410-37461-6	S-277_SL_20210426	98	103	93	104
410-37461-6 - DL	S-277_SL_20210426	96	107	93	107
410-37461-7	TB_20210427	99	100	99	101
LCS 410-121083/4	Lab Control Sample	100	102	95	101
LCSD 410-121083/5	Lab Control Sample Dup	101	102	95	103
MB 410-121083/6	Method Blank	97	99	96	103

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(44-102)	(23-128)	(31-113)
410-37461-1	S-13_20210426	69	63	81
410-37461-2	DUP-3_20210426	59	55	70
410-37461-3	S-20_20210426	59	54	76
410-37461-4	S-199_SL_20210426	46	70	44
410-37461-4 - DL	S-199_SL_20210426	63	64	44
410-37461-5	S-69D_20210426	77	78	72
410-37461-6	S-277_SL_20210426	76	5 S1-	85
LCS 410-121282/2-A	Lab Control Sample	75	73	93
LCS 410-121831/2-A	Lab Control Sample	74	72	92
LCSD 410-121831/3-A	Lab Control Sample Dup	76	76	94
MB 410-121282/1-A	Method Blank	69	65	98
MB 410-121831/1-A	Method Blank	76	73	96

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		Propene1
Lab Sample ID	Client Sample ID	(28-140)
410-37461-1	S-13_20210426	83
410-37461-2	DUP-3_20210426	84

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	Propene1 (28-140)						
410-37461-3	S-20_20210426	86						
410-37461-3 - DL	S-20_20210426	106						
410-37461-4	S-199_SL_20210426	85						
410-37461-4 - DL	S-199_SL_20210426	108						
410-37461-5	S-69D_20210426	93						
410-37461-6	S-277_SL_20210426	85						
410-37461-6 - DL	S-277_SL_20210426	108						
LCS 410-120921/2-A	Lab Control Sample	105						
LCS 410-121552/2-A	Lab Control Sample	105						
LCSD 410-120921/3-A	Lab Control Sample Dup	108						
LCSD 410-121552/3-A	Lab Control Sample Dup	105						
MB 410-120921/1-A	Method Blank	106						
MB 410-121552/1-A	Method Blank	106						

Surrogate Legend

Propene = Propene

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	1122TCA1 (46-136)	1122TCA2 (46-136)					
410-37461-1	S-13_20210426	125	119					
410-37461-2	DUP-3_20210426	116	114					
410-37461-3	S-20_20210426	124	116					
410-37461-4	S-199_SL_20210426	80	98					
410-37461-5	S-69D_20210426	98	101					
410-37461-6	S-277_SL_20210426	150 S1+	125					
410-37461-7	TB_20210427	112	105					
LCS 410-121300/2-A	Lab Control Sample	121	117					
LCSD 410-121300/3-A	Lab Control Sample Dup	120	116					
MB 410-121300/1-A	Method Blank	123	116					

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-121083/6
Matrix: Water
Analysis Batch: 121083

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			04/30/21 13:52	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			04/30/21 13:52	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			04/30/21 13:52	1
Benzene	ND		1.0	0.20	ug/L			04/30/21 13:52	1
Ethylbenzene	ND		1.0	0.40	ug/L			04/30/21 13:52	1
Isopropylbenzene	ND		5.0	0.20	ug/L			04/30/21 13:52	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			04/30/21 13:52	1
tert-Butyl alcohol	ND		50	12	ug/L			04/30/21 13:52	1
Toluene	ND		1.0	0.20	ug/L			04/30/21 13:52	1
Xylenes, Total	ND		6.0	1.4	ug/L			04/30/21 13:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*80 - 120*		*04/30/21 13:52*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*04/30/21 13:52*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*04/30/21 13:52*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*04/30/21 13:52*	*1*

Lab Sample ID: LCS 410-121083/4
Matrix: Water
Analysis Batch: 121083

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2,4-Trimethylbenzene			20.0	18.3		ug/L		92	75 - 120		
1,2-Dichloroethane			20.0	18.5		ug/L		92	73 - 124		
1,3,5-Trimethylbenzene			20.0	18.0		ug/L		90	75 - 120		
Benzene			20.0	20.3		ug/L		102	80 - 120		
Ethylbenzene			20.0	20.2		ug/L		101	80 - 120		
Isopropylbenzene			20.0	18.4		ug/L		92	80 - 120		
Methyl tert-butyl ether			20.0	19.2		ug/L		96	69 - 122		
Naphthalene			20.0	16.6		ug/L		83	53 - 124		
tert-Butyl alcohol			200	199		ug/L		100	60 - 130		
Toluene			20.0	20.5		ug/L		103	80 - 120		
Xylenes, Total			60.0	56.3		ug/L		94	80 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Lab Sample ID: LCSD 410-121083/5
Matrix: Water
Analysis Batch: 121083

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene			20.0	18.5		ug/L		93	75 - 120	1	30
1,2-Dichloroethane			20.0	17.1		ug/L		86	73 - 124	7	30
1,3,5-Trimethylbenzene			20.0	18.2		ug/L		91	75 - 120	1	30

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-121083/5
Matrix: Water
Analysis Batch: 121083

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	20.0	19.9		ug/L		99	80 - 120	2	30
Ethylbenzene	20.0	19.3		ug/L		96	80 - 120	5	30
Isopropylbenzene	20.0	17.7		ug/L		89	80 - 120	4	30
Methyl tert-butyl ether	20.0	18.5		ug/L		92	69 - 122	4	30
Naphthalene	20.0	16.7		ug/L		83	53 - 124	0	30
tert-Butyl alcohol	200	194		ug/L		97	60 - 130	3	30
Toluene	20.0	19.7		ug/L		99	80 - 120	4	30
Xylenes, Total	60.0	54.8		ug/L		91	80 - 120	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*80 - 120*
Toluene-d8 (Surr)	*103*		*80 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-121282/1-A
Matrix: Water
Analysis Batch: 121876

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 121282

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/01/21 01:33	05/04/21 01:23	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/01/21 01:33	05/04/21 01:23	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/01/21 01:33	05/04/21 01:23	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/01/21 01:33	05/04/21 01:23	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/01/21 01:33	05/04/21 01:23	1
Chrysene	ND		0.50	0.10	ug/L		05/01/21 01:33	05/04/21 01:23	1
Fluorene	ND		0.50	0.12	ug/L		05/01/21 01:33	05/04/21 01:23	1
Naphthalene	ND		0.50	0.10	ug/L		05/01/21 01:33	05/04/21 01:23	1
Phenanthrene	ND		0.50	0.11	ug/L		05/01/21 01:33	05/04/21 01:23	1
Pyrene	ND		0.50	0.10	ug/L		05/01/21 01:33	05/04/21 01:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*69*		*44 - 102*	*05/01/21 01:33*	*05/04/21 01:23*	*1*
Nitrobenzene-d5 (Surr)	*65*		*23 - 128*	*05/01/21 01:33*	*05/04/21 01:23*	*1*
p-Terphenyl-d14 (Surr)	*98*		*31 - 113*	*05/01/21 01:33*	*05/04/21 01:23*	*1*

Lab Sample ID: LCS 410-121282/2-A
Matrix: Water
Analysis Batch: 121876

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 121282

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.0	45.5		ug/L		91	61 - 117
Benzo[a]anthracene	50.0	47.5		ug/L		95	61 - 126
Benzo[a]pyrene	50.0	56.3		ug/L		113	60 - 116
Benzo[b]fluoranthene	50.0	46.7		ug/L		93	61 - 119
Benzo[g,h,i]perylene	50.0	49.1		ug/L		98	54 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-121282/2-A
Matrix: Water
Analysis Batch: 121876

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 121282

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chrysene	50.0	47.6		ug/L		95	65 - 121
Fluorene	50.0	45.2		ug/L		90	56 - 115
Naphthalene	50.0	37.2		ug/L		74	51 - 102
Phenanthrene	50.0	44.1		ug/L		88	65 - 113
Pyrene	50.0	48.6		ug/L		97	65 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*75*		*44 - 102*
Nitrobenzene-d5 (Surr)	*73*		*23 - 128*
p-Terphenyl-d14 (Surr)	*93*		*31 - 113*

Lab Sample ID: MB 410-121831/1-A
Matrix: Water
Analysis Batch: 122141

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 121831

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/03/21 15:45	05/04/21 11:45	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/03/21 15:45	05/04/21 11:45	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/03/21 15:45	05/04/21 11:45	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/03/21 15:45	05/04/21 11:45	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/03/21 15:45	05/04/21 11:45	1
Chrysene	ND		0.50	0.10	ug/L		05/03/21 15:45	05/04/21 11:45	1
Fluorene	ND		0.50	0.12	ug/L		05/03/21 15:45	05/04/21 11:45	1
Naphthalene	ND		0.50	0.10	ug/L		05/03/21 15:45	05/04/21 11:45	1
Phenanthrene	ND		0.50	0.11	ug/L		05/03/21 15:45	05/04/21 11:45	1
Pyrene	ND		0.50	0.10	ug/L		05/03/21 15:45	05/04/21 11:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*76*		*44 - 102*	*05/03/21 15:45*	*05/04/21 11:45*	*1*
Nitrobenzene-d5 (Surr)	*73*		*23 - 128*	*05/03/21 15:45*	*05/04/21 11:45*	*1*
p-Terphenyl-d14 (Surr)	*96*		*31 - 113*	*05/03/21 15:45*	*05/04/21 11:45*	*1*

Lab Sample ID: LCS 410-121831/2-A
Matrix: Water
Analysis Batch: 122141

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 121831

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.0	45.1		ug/L		90	61 - 117
Benzo[a]anthracene	50.0	49.2		ug/L		98	61 - 126
Benzo[a]pyrene	50.0	58.0		ug/L		116	60 - 116
Benzo[b]fluoranthene	50.0	49.2		ug/L		98	61 - 119
Benzo[g,h,i]perylene	50.0	51.0		ug/L		102	54 - 120
Chrysene	50.0	48.7		ug/L		97	65 - 121
Fluorene	50.0	44.7		ug/L		89	56 - 115
Naphthalene	50.0	36.6		ug/L		73	51 - 102
Phenanthrene	50.0	43.4		ug/L		87	65 - 113
Pyrene	50.0	48.1		ug/L		96	65 - 115

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-121831/2-A
Matrix: Water
Analysis Batch: 122141

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 121831

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*74*		*44 - 102*
Nitrobenzene-d5 (Surr)	*72*		*23 - 128*
p-Terphenyl-d14 (Surr)	*92*		*31 - 113*

Lab Sample ID: LCSD 410-121831/3-A
Matrix: Water
Analysis Batch: 122141

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 121831

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Anthracene			50.0	46.6		ug/L		93	61 - 117	3	30
Benzo[a]anthracene			50.0	50.9		ug/L		102	61 - 126	3	30
Benzo[a]pyrene			50.0	57.3		ug/L		115	60 - 116	1	30
Benzo[b]fluoranthene			50.0	49.4		ug/L		99	61 - 119	0	30
Benzo[g,h,i]perylene			50.0	50.5		ug/L		101	54 - 120	1	30
Chrysene			50.0	49.6		ug/L		99	65 - 121	2	30
Fluorene			50.0	46.5		ug/L		93	56 - 115	4	30
Naphthalene			50.0	38.8		ug/L		78	51 - 102	6	30
Phenanthrene			50.0	44.9		ug/L		90	65 - 113	3	30
Pyrene			50.0	49.6		ug/L		99	65 - 115	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*76*		*44 - 102*
Nitrobenzene-d5 (Surr)	*76*		*23 - 128*
p-Terphenyl-d14 (Surr)	*94*		*31 - 113*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-120921/1-A
Matrix: Water
Analysis Batch: 120910

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 120921

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		04/30/21 07:24	04/30/21 13:59	1
Ethene (1C)	ND		5.0	1.0	ug/L		04/30/21 07:24	04/30/21 13:59	1
Methane (1C)	ND		5.0	3.0	ug/L		04/30/21 07:24	04/30/21 13:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*106*		*28 - 140*	*04/30/21 07:24*	*04/30/21 13:59*	*1*

Lab Sample ID: LCS 410-120921/2-A
Matrix: Water
Analysis Batch: 120910

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 120921

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	60.9		ug/L		102	85 - 115		
Ethene (1C)			60.4	61.5		ug/L		102	83 - 115		
Methane (1C)			59.4	60.7		ug/L		102	85 - 115		

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCS 410-120921/2-A
Matrix: Water
Analysis Batch: 120910

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 120921

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Propene (1C)	105		28 - 140

Lab Sample ID: LCSD 410-120921/3-A
Matrix: Water
Analysis Batch: 120910

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 120921

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	61.0		ug/L		103	85 - 115	0	20
Ethene (1C)			60.4	61.5		ug/L		102	83 - 115	0	20
Methane (1C)			59.4	62.4		ug/L		105	85 - 115	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Propene (1C)	108		28 - 140

Lab Sample ID: MB 410-121552/1-A
Matrix: Water
Analysis Batch: 121557

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 121552

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/03/21 07:24	05/03/21 08:05	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/03/21 07:24	05/03/21 08:05	1
Methane (1C)	ND		5.0	3.0	ug/L		05/03/21 07:24	05/03/21 08:05	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Propene (1C)	106		28 - 140	05/03/21 07:24	05/03/21 08:05	1

Lab Sample ID: LCS 410-121552/2-A
Matrix: Water
Analysis Batch: 121557

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 121552

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethane (1C)			59.4	59.0		ug/L		99	85 - 115
Ethene (1C)			60.4	59.3		ug/L		98	83 - 115
Methane (1C)			59.4	60.4		ug/L		102	85 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Propene (1C)	105		28 - 140

Lab Sample ID: LCSD 410-121552/3-A
Matrix: Water
Analysis Batch: 121557

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 121552

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	60.2		ug/L		101	85 - 115	2	20
Ethene (1C)			60.4	60.4		ug/L		100	83 - 115	2	20
Methane (1C)			59.4	60.4		ug/L		102	85 - 115	0	20

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCSD 410-121552/3-A
Matrix: Water
Analysis Batch: 121557

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 121552

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Propene (1C)	105		28 - 140

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-121300/1-A
Matrix: Water
Analysis Batch: 121511

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 121300

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		05/01/21 07:11	05/03/21 07:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane (Surr) (1C)	123		46 - 136	05/01/21 07:11	05/03/21 07:49	1
1,1,2,2-Tetrachloroethane (Surr) (2C)	116		46 - 136	05/01/21 07:11	05/03/21 07:49	1

Lab Sample ID: LCS 410-121300/2-A
Matrix: Water
Analysis Batch: 121511

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 121300

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.173		ug/L		135	60 - 140		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,1,2,2-Tetrachloroethane (Surr) (1C)	121		46 - 136
1,1,2,2-Tetrachloroethane (Surr) (2C)	117		46 - 136

Lab Sample ID: LCSD 410-121300/3-A
Matrix: Water
Analysis Batch: 121511

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 121300

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.179		ug/L		140	60 - 140	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,1,2,2-Tetrachloroethane (Surr) (1C)	120		46 - 136
1,1,2,2-Tetrachloroethane (Surr) (2C)	116		46 - 136

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 410-120899/4
Matrix: Water
Analysis Batch: 120899

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1000	300	ug/L			04/30/21 16:35	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 410-120899/3
Matrix: Water
Analysis Batch: 120899

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			7500	7890		ug/L		105	90 - 110		

Lab Sample ID: 410-37461-1 MS
Matrix: Water
Analysis Batch: 120899

Client Sample ID: S-13_20210426
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	52000	FH	50000	111000	FH	ug/L		117	90 - 110		

Lab Sample ID: 410-37461-1 DU
Matrix: Water
Analysis Batch: 120899

Client Sample ID: S-13_20210426
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfate	52000	FH		52600		ug/L				0.9	15

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-120103/1-A
Matrix: Water
Analysis Batch: 120542

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 120103

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		500	96	ug/L		04/28/21 13:24	04/29/21 07:48	1
Iron	ND		200	40	ug/L		04/28/21 13:24	04/29/21 07:48	1

Lab Sample ID: LCS 410-120103/2-A
Matrix: Water
Analysis Batch: 120542

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 120103

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Calcium			400	400	J	ug/L		100	80 - 120		
Iron			400	400		ug/L		100	80 - 120		

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 410-120081/1-A
Matrix: Water
Analysis Batch: 120168

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 120081

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		04/28/21 12:17	04/28/21 14:39	1

Lab Sample ID: LCS 410-120081/2-A
Matrix: Water
Analysis Batch: 120168

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 120081

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			60.0	58.7		ug/L		98	90 - 115		

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 410-120081/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 120168 — **Prep Batch: 120081**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead			60.0	57.9		ug/L		96	90 - 115	1	20

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 410-120654/22 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 120654

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8000	8000	ug/L			04/28/21 18:41	1

Lab Sample ID: LCS 410-120654/25 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 120654

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Alkalinity as CaCO3 to pH 4.5			189000	183000		ug/L		97	82 - 106		

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 410-122315/2-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 124470 — **Prep Batch: 122315**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		1000	500	ug/L		05/04/21 14:42	05/10/21 09:58	1

Lab Sample ID: LCS 410-122315/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 124470 — **Prep Batch: 122315**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Kjeldahl Nitrogen			4000	4220		ug/L		105	90 - 110		

Lab Sample ID: 410-37461-6 MS — **Client Sample ID: S-277_SL_20210426**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 124470 — **Prep Batch: 122315**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Kjeldahl Nitrogen	1800		5000	6790		ug/L		100	90 - 110		

Lab Sample ID: 410-37461-6 DU — **Client Sample ID: S-277_SL_20210426**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 124470 — **Prep Batch: 122315**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Kjeldahl Nitrogen	1800		1740		ug/L		3	20

Method: 5310 B-2011 - Carbon, Total and Total Inorganic

Lab Sample ID: MB 410-121032/4
Matrix: Water
Analysis Batch: 121032

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Carbon	ND		1000	500	ug/L			04/29/21 14:30	1

Lab Sample ID: LCS 410-121032/3
Matrix: Water
Analysis Batch: 121032

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Carbon	25000	24300		ug/L		97	91 - 115

Lab Sample ID: 410-37461-1 MS
Matrix: Water
Analysis Batch: 121032

Client Sample ID: S-13_20210426
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Carbon	46000		50000	97700		ug/L		102	91 - 115

Lab Sample ID: 410-37461-1 DU
Matrix: Water
Analysis Batch: 121032

Client Sample ID: S-13_20210426
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Carbon	46000		47800		ug/L		3	20

Method: 5310C-2011 - Total Organic Carbon/Persulfate - Ultrav

Lab Sample ID: MB 410-121341/70
Matrix: Water
Analysis Batch: 121341

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	500	ug/L			05/01/21 09:53	1

Lab Sample ID: LCS 410-121341/69
Matrix: Water
Analysis Batch: 121341

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	25000	26400		ug/L		106	91 - 113

Lab Sample ID: MB 410-124014/5
Matrix: Water
Analysis Batch: 124014

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	500	ug/L			05/07/21 12:33	1

Method: 5310C-2011 - Total Organic Carbon/Persulfate - Ultrav (Continued)

Lab Sample ID: LCS 410-124014/4
Matrix: Water
Analysis Batch: 124014

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	25000	24800		ug/L		99	91 - 113

GC/MS VOA

Analysis Batch: 121083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37461-1	S-13_20210426	Total/NA	Water	8260C/UST	
410-37461-2	DUP-3_20210426	Total/NA	Water	8260C/UST	
410-37461-3	S-20_20210426	Total/NA	Water	8260C/UST	
410-37461-4	S-199_SL_20210426	Total/NA	Water	8260C/UST	
410-37461-4 - DL	S-199_SL_20210426	Total/NA	Water	8260C/UST	
410-37461-5	S-69D_20210426	Total/NA	Water	8260C/UST	
410-37461-6	S-277_SL_20210426	Total/NA	Water	8260C/UST	
410-37461-6 - DL	S-277_SL_20210426	Total/NA	Water	8260C/UST	
410-37461-7	TB_20210427	Total/NA	Water	8260C/UST	
MB 410-121083/6	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-121083/4	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-121083/5	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

GC/MS Semi VOA

Prep Batch: 121282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37461-1	S-13_20210426	Total/NA	Water	3510C	
410-37461-2	DUP-3_20210426	Total/NA	Water	3510C	
410-37461-3	S-20_20210426	Total/NA	Water	3510C	
MB 410-121282/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-121282/2-A	Lab Control Sample	Total/NA	Water	3510C	

Prep Batch: 121831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37461-4	S-199_SL_20210426	Total/NA	Water	3510C	
410-37461-4 - DL	S-199_SL_20210426	Total/NA	Water	3510C	
410-37461-5	S-69D_20210426	Total/NA	Water	3510C	
410-37461-6	S-277_SL_20210426	Total/NA	Water	3510C	
MB 410-121831/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-121831/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-121831/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 121876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-121282/1-A	Method Blank	Total/NA	Water	8270D	121282
LCS 410-121282/2-A	Lab Control Sample	Total/NA	Water	8270D	121282

Analysis Batch: 122141

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37461-1	S-13_20210426	Total/NA	Water	8270D	121282
410-37461-2	DUP-3_20210426	Total/NA	Water	8270D	121282
410-37461-3	S-20_20210426	Total/NA	Water	8270D	121282
410-37461-4	S-199_SL_20210426	Total/NA	Water	8270D	121831
410-37461-5	S-69D_20210426	Total/NA	Water	8270D	121831
410-37461-6	S-277_SL_20210426	Total/NA	Water	8270D	121831
MB 410-121831/1-A	Method Blank	Total/NA	Water	8270D	121831
LCS 410-121831/2-A	Lab Control Sample	Total/NA	Water	8270D	121831
LCSD 410-121831/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	121831

GC/MS Semi VOA

Analysis Batch: 122456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37461-4 - DL	S-199_SL_20210426	Total/NA	Water	8270D	121831

GC VOA

Analysis Batch: 120910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37461-1	S-13_20210426	Total/NA	Water	RSK-175	120921
410-37461-2	DUP-3_20210426	Total/NA	Water	RSK-175	120921
410-37461-3	S-20_20210426	Total/NA	Water	RSK-175	120921
410-37461-4	S-199_SL_20210426	Total/NA	Water	RSK-175	120921
410-37461-5	S-69D_20210426	Total/NA	Water	RSK-175	120921
410-37461-6	S-277_SL_20210426	Total/NA	Water	RSK-175	120921
MB 410-120921/1-A	Method Blank	Total/NA	Water	RSK-175	120921
LCS 410-120921/2-A	Lab Control Sample	Total/NA	Water	RSK-175	120921
LCSD 410-120921/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	120921

Prep Batch: 120921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37461-1	S-13_20210426	Total/NA	Water	RSK-175	
410-37461-2	DUP-3_20210426	Total/NA	Water	RSK-175	
410-37461-3	S-20_20210426	Total/NA	Water	RSK-175	
410-37461-4	S-199_SL_20210426	Total/NA	Water	RSK-175	
410-37461-5	S-69D_20210426	Total/NA	Water	RSK-175	
410-37461-6	S-277_SL_20210426	Total/NA	Water	RSK-175	
MB 410-120921/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-120921/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-120921/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Prep Batch: 121552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37461-3 - DL	S-20_20210426	Total/NA	Water	RSK-175	
410-37461-4 - DL	S-199_SL_20210426	Total/NA	Water	RSK-175	
410-37461-6 - DL	S-277_SL_20210426	Total/NA	Water	RSK-175	
MB 410-121552/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-121552/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-121552/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 121557

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37461-3 - DL	S-20_20210426	Total/NA	Water	RSK-175	121552
410-37461-4 - DL	S-199_SL_20210426	Total/NA	Water	RSK-175	121552
410-37461-6 - DL	S-277_SL_20210426	Total/NA	Water	RSK-175	121552
MB 410-121552/1-A	Method Blank	Total/NA	Water	RSK-175	121552
LCS 410-121552/2-A	Lab Control Sample	Total/NA	Water	RSK-175	121552
LCSD 410-121552/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	121552

GC Semi VOA

Prep Batch: 121300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37461-1	S-13_20210426	Total/NA	Water	8011	
410-37461-2	DUP-3_20210426	Total/NA	Water	8011	

GC Semi VOA (Continued)

Prep Batch: 121300 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37461-3	S-20_20210426	Total/NA	Water	8011	
410-37461-4	S-199_SL_20210426	Total/NA	Water	8011	
410-37461-5	S-69D_20210426	Total/NA	Water	8011	
410-37461-6	S-277_SL_20210426	Total/NA	Water	8011	
410-37461-7	TB_20210427	Total/NA	Water	8011	
MB 410-121300/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-121300/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-121300/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 121511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37461-1	S-13_20210426	Total/NA	Water	8011	121300
410-37461-2	DUP-3_20210426	Total/NA	Water	8011	121300
410-37461-3	S-20_20210426	Total/NA	Water	8011	121300
410-37461-4	S-199_SL_20210426	Total/NA	Water	8011	121300
410-37461-5	S-69D_20210426	Total/NA	Water	8011	121300
410-37461-6	S-277_SL_20210426	Total/NA	Water	8011	121300
410-37461-7	TB_20210427	Total/NA	Water	8011	121300
MB 410-121300/1-A	Method Blank	Total/NA	Water	8011	121300
LCS 410-121300/2-A	Lab Control Sample	Total/NA	Water	8011	121300
LCSD 410-121300/3-A	Lab Control Sample Dup	Total/NA	Water	8011	121300

HPLC/IC

Analysis Batch: 120899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37461-1	S-13_20210426	Total/NA	Water	EPA 300.0 R2.1	
410-37461-2	DUP-3_20210426	Total/NA	Water	EPA 300.0 R2.1	
410-37461-3	S-20_20210426	Total/NA	Water	EPA 300.0 R2.1	
410-37461-4	S-199_SL_20210426	Total/NA	Water	EPA 300.0 R2.1	
410-37461-5	S-69D_20210426	Total/NA	Water	EPA 300.0 R2.1	
410-37461-6	S-277_SL_20210426	Total/NA	Water	EPA 300.0 R2.1	
MB 410-120899/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-120899/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
410-37461-1 MS	S-13_20210426	Total/NA	Water	EPA 300.0 R2.1	
410-37461-1 DU	S-13_20210426	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 120081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37461-1	S-13_20210426	Dissolved	Water	Non-Digest Prep	
410-37461-2	DUP-3_20210426	Dissolved	Water	Non-Digest Prep	
410-37461-3	S-20_20210426	Dissolved	Water	Non-Digest Prep	
410-37461-4	S-199_SL_20210426	Dissolved	Water	Non-Digest Prep	
410-37461-5	S-69D_20210426	Dissolved	Water	Non-Digest Prep	
410-37461-6	S-277_SL_20210426	Dissolved	Water	Non-Digest Prep	
MB 410-120081/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-120081/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	
LCSD 410-120081/3-A	Lab Control Sample Dup	Total/NA	Water	Non-Digest Prep	

Metals

Prep Batch: 120103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37461-1	S-13_20210426	Total Recoverable	Water	3005A	
410-37461-2	DUP-3_20210426	Total Recoverable	Water	3005A	
410-37461-3	S-20_20210426	Total Recoverable	Water	3005A	
410-37461-4	S-199_SL_20210426	Total Recoverable	Water	3005A	
410-37461-5	S-69D_20210426	Total Recoverable	Water	3005A	
410-37461-6	S-277_SL_20210426	Total Recoverable	Water	3005A	
MB 410-120103/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-120103/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 120168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37461-1	S-13_20210426	Dissolved	Water	6020A	120081
410-37461-2	DUP-3_20210426	Dissolved	Water	6020A	120081
410-37461-3	S-20_20210426	Dissolved	Water	6020A	120081
410-37461-4	S-199_SL_20210426	Dissolved	Water	6020A	120081
410-37461-5	S-69D_20210426	Dissolved	Water	6020A	120081
410-37461-6	S-277_SL_20210426	Dissolved	Water	6020A	120081
MB 410-120081/1-A	Method Blank	Total/NA	Water	6020A	120081
LCS 410-120081/2-A	Lab Control Sample	Total/NA	Water	6020A	120081
LCSD 410-120081/3-A	Lab Control Sample Dup	Total/NA	Water	6020A	120081

Analysis Batch: 120542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37461-1	S-13_20210426	Total Recoverable	Water	6010C	120103
410-37461-2	DUP-3_20210426	Total Recoverable	Water	6010C	120103
410-37461-3	S-20_20210426	Total Recoverable	Water	6010C	120103
410-37461-4	S-199_SL_20210426	Total Recoverable	Water	6010C	120103
410-37461-5	S-69D_20210426	Total Recoverable	Water	6010C	120103
410-37461-6	S-277_SL_20210426	Total Recoverable	Water	6010C	120103
MB 410-120103/1-A	Method Blank	Total Recoverable	Water	6010C	120103
LCS 410-120103/2-A	Lab Control Sample	Total Recoverable	Water	6010C	120103

General Chemistry

Analysis Batch: 120654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37461-1	S-13_20210426	Total/NA	Water	2320B-2011	
410-37461-2	DUP-3_20210426	Total/NA	Water	2320B-2011	
410-37461-3	S-20_20210426	Total/NA	Water	2320B-2011	
410-37461-4	S-199_SL_20210426	Total/NA	Water	2320B-2011	
410-37461-5	S-69D_20210426	Total/NA	Water	2320B-2011	
410-37461-6	S-277_SL_20210426	Total/NA	Water	2320B-2011	
MB 410-120654/22	Method Blank	Total/NA	Water	2320B-2011	
LCS 410-120654/25	Lab Control Sample	Total/NA	Water	2320B-2011	

Analysis Batch: 121032

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37461-1	S-13_20210426	Total/NA	Water	5310 B-2011	
410-37461-2	DUP-3_20210426	Total/NA	Water	5310 B-2011	
410-37461-3	S-20_20210426	Total/NA	Water	5310 B-2011	
410-37461-4	S-199_SL_20210426	Total/NA	Water	5310 B-2011	

General Chemistry (Continued)

Analysis Batch: 121032 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37461-5	S-69D_20210426	Total/NA	Water	5310 B-2011	
410-37461-6	S-277_SL_20210426	Total/NA	Water	5310 B-2011	
MB 410-121032/4	Method Blank	Total/NA	Water	5310 B-2011	
LCS 410-121032/3	Lab Control Sample	Total/NA	Water	5310 B-2011	
410-37461-1 MS	S-13_20210426	Total/NA	Water	5310 B-2011	
410-37461-1 DU	S-13_20210426	Total/NA	Water	5310 B-2011	

Analysis Batch: 121341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37461-1	S-13_20210426	Total/NA	Water	5310C-2011	
410-37461-2	DUP-3_20210426	Total/NA	Water	5310C-2011	
410-37461-3	S-20_20210426	Total/NA	Water	5310C-2011	
410-37461-5	S-69D_20210426	Total/NA	Water	5310C-2011	
410-37461-6	S-277_SL_20210426	Total/NA	Water	5310C-2011	
MB 410-121341/70	Method Blank	Total/NA	Water	5310C-2011	
LCS 410-121341/69	Lab Control Sample	Total/NA	Water	5310C-2011	

Prep Batch: 122315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37461-1	S-13_20210426	Total/NA	Water	351.2	
410-37461-2	DUP-3_20210426	Total/NA	Water	351.2	
410-37461-3	S-20_20210426	Total/NA	Water	351.2	
410-37461-4	S-199_SL_20210426	Total/NA	Water	351.2	
410-37461-5	S-69D_20210426	Total/NA	Water	351.2	
410-37461-6	S-277_SL_20210426	Total/NA	Water	351.2	
MB 410-122315/2-A	Method Blank	Total/NA	Water	351.2	
LCS 410-122315/1-A	Lab Control Sample	Total/NA	Water	351.2	
410-37461-6 MS	S-277_SL_20210426	Total/NA	Water	351.2	
410-37461-6 DU	S-277_SL_20210426	Total/NA	Water	351.2	

Analysis Batch: 122713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37461-1	S-13_20210426	Total/NA	Water	SM5310C	
410-37461-2	DUP-3_20210426	Total/NA	Water	SM5310C	
410-37461-3	S-20_20210426	Total/NA	Water	SM5310C	
410-37461-5	S-69D_20210426	Total/NA	Water	SM5310C	
410-37461-6	S-277_SL_20210426	Total/NA	Water	SM5310C	

Analysis Batch: 124014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37461-4	S-199_SL_20210426	Total/NA	Water	5310C-2011	
MB 410-124014/5	Method Blank	Total/NA	Water	5310C-2011	
LCS 410-124014/4	Lab Control Sample	Total/NA	Water	5310C-2011	

Analysis Batch: 124470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37461-1	S-13_20210426	Total/NA	Water	351.2	122315
410-37461-2	DUP-3_20210426	Total/NA	Water	351.2	122315
410-37461-3	S-20_20210426	Total/NA	Water	351.2	122315
410-37461-4	S-199_SL_20210426	Total/NA	Water	351.2	122315
410-37461-5	S-69D_20210426	Total/NA	Water	351.2	122315

General Chemistry (Continued)

Analysis Batch: 124470 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37461-6	S-277_SL_20210426	Total/NA	Water	351.2	122315
MB 410-122315/2-A	Method Blank	Total/NA	Water	351.2	122315
LCS 410-122315/1-A	Lab Control Sample	Total/NA	Water	351.2	122315
410-37461-6 MS	S-277_SL_20210426	Total/NA	Water	351.2	122315
410-37461-6 DU	S-277_SL_20210426	Total/NA	Water	351.2	122315

Analysis Batch: 124510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37461-4	S-199_SL_20210426	Total/NA	Water	SM5310C	

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37461-1

Client Sample ID: S-13_20210426

Date Collected: 04/26/21 08:00
Date Received: 04/27/21 16:20

Lab Sample ID: 410-37461-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	121083	04/30/21 19:29	USEJ	ELLE
Total/NA	Prep	3510C			121282	05/01/21 01:33	UKQ8	ELLE
Total/NA	Analysis	8270D		1	122141	05/04/21 17:23	UWHS	ELLE
Total/NA	Prep	RSK-175			120921	04/30/21 07:24	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	120910	04/30/21 14:59	LXF2	ELLE
Total/NA	Prep	8011			121300	05/01/21 07:11	UKQ8	ELLE
Total/NA	Analysis	8011		1	121511	05/03/21 12:33	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		10	120899	04/30/21 16:51	GJ35	ELLE
Total Recoverable	Prep	3005A			120103	04/28/21 13:24	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	120542	04/29/21 08:42	MDP5	ELLE
Dissolved	Prep	Non-Digest Prep			120081	04/28/21 12:17	UPJE	ELLE
Dissolved	Analysis	6020A		1	120168	04/28/21 15:13	UCIG	ELLE
Total/NA	Analysis	2320B-2011		1	120654	04/28/21 21:10	DI9Q	ELLE
Total/NA	Prep	351.2			122315	05/04/21 14:42	F8AU	ELLE
Total/NA	Analysis	351.2		1	124470	05/10/21 10:11	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		5	121032	04/29/21 17:11	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	121341	05/01/21 11:31	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	122713	05/05/21 10:15	KGQ6	ELLE

Client Sample ID: DUP-3_20210426

Date Collected: 04/26/21 08:00
Date Received: 04/27/21 16:20

Lab Sample ID: 410-37461-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	121083	04/30/21 19:53	USEJ	ELLE
Total/NA	Prep	3510C			121282	05/01/21 01:33	UKQ8	ELLE
Total/NA	Analysis	8270D		1	122141	05/04/21 17:51	UWHS	ELLE
Total/NA	Prep	RSK-175			120921	04/30/21 07:24	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	120910	04/30/21 15:18	LXF2	ELLE
Total/NA	Prep	8011			121300	05/01/21 07:11	UKQ8	ELLE
Total/NA	Analysis	8011		1	121511	05/03/21 12:50	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		10	120899	04/30/21 17:37	GJ35	ELLE
Total Recoverable	Prep	3005A			120103	04/28/21 13:24	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	120542	04/29/21 08:32	MDP5	ELLE
Dissolved	Prep	Non-Digest Prep			120081	04/28/21 12:17	UPJE	ELLE
Dissolved	Analysis	6020A		1	120168	04/28/21 15:01	UCIG	ELLE
Total/NA	Analysis	2320B-2011		1	120654	04/28/21 21:15	DI9Q	ELLE
Total/NA	Prep	351.2			122315	05/04/21 14:42	F8AU	ELLE
Total/NA	Analysis	351.2		1	124470	05/10/21 10:13	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	121032	04/29/21 17:43	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	121341	05/01/21 11:45	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	122713	05/05/21 10:15	KGQ6	ELLE

Client Sample ID: S-20_20210426

Lab Sample ID: 410-37461-3

Date Collected: 04/26/21 09:30

Matrix: Water

Date Received: 04/27/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	121083	04/30/21 20:17	USEJ	ELLE
Total/NA	Prep	3510C			121282	05/01/21 01:33	UKQ8	ELLE
Total/NA	Analysis	8270D		1	122141	05/04/21 18:20	UWHS	ELLE
Total/NA	Prep	RSK-175			120921	04/30/21 07:24	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	120910	04/30/21 15:36	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		121552	05/03/21 07:24	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	50	121557	05/03/21 10:32	LXF2	ELLE
Total/NA	Prep	8011			121300	05/01/21 07:11	UKQ8	ELLE
Total/NA	Analysis	8011		1	121511	05/03/21 13:07	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	120899	04/30/21 17:53	GJ35	ELLE
Total Recoverable	Prep	3005A			120103	04/28/21 13:24	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	120542	04/29/21 08:45	MDP5	ELLE
Dissolved	Prep	Non-Digest Prep			120081	04/28/21 12:17	UPJE	ELLE
Dissolved	Analysis	6020A		1	120168	04/28/21 15:09	UCIG	ELLE
Total/NA	Analysis	2320B-2011		1	120654	04/28/21 20:50	DI9Q	ELLE
Total/NA	Prep	351.2			122315	05/04/21 14:42	F8AU	ELLE
Total/NA	Analysis	351.2		5	124470	05/10/21 10:15	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	121032	04/29/21 17:54	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	121341	05/01/21 12:27	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	122713	05/05/21 10:15	KGQ6	ELLE

Client Sample ID: S-199_SL_20210426

Lab Sample ID: 410-37461-4

Date Collected: 04/26/21 09:25

Matrix: Water

Date Received: 04/27/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		10	121083	04/30/21 22:18	USEJ	ELLE
Total/NA	Analysis	8260C/UST	DL	100	121083	04/30/21 22:42	USEJ	ELLE
Total/NA	Prep	3510C			121831	05/03/21 15:45	DN9W	ELLE
Total/NA	Analysis	8270D		1	122141	05/04/21 19:16	UWHS	ELLE
Total/NA	Prep	3510C	DL		121831	05/03/21 15:45	DN9W	ELLE
Total/NA	Analysis	8270D	DL	10	122456	05/04/21 23:02	W6XI	ELLE
Total/NA	Prep	RSK-175			120921	04/30/21 07:24	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	120910	04/30/21 15:55	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		121552	05/03/21 07:24	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	100	121557	05/03/21 10:51	LXF2	ELLE
Total/NA	Prep	8011			121300	05/01/21 07:11	UKQ8	ELLE
Total/NA	Analysis	8011		1	121511	05/03/21 13:23	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	120899	04/30/21 18:09	GJ35	ELLE
Total Recoverable	Prep	3005A			120103	04/28/21 13:24	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	120542	04/29/21 08:48	MDP5	ELLE
Dissolved	Prep	Non-Digest Prep			120081	04/28/21 12:17	UPJE	ELLE
Dissolved	Analysis	6020A		5	120168	04/28/21 15:27	UCIG	ELLE

Client Sample ID: S-199_SL_20210426

Lab Sample ID: 410-37461-4

Date Collected: 04/26/21 09:25

Matrix: Water

Date Received: 04/27/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1	120654	04/28/21 20:43	DI9Q	ELLE
Total/NA	Prep	351.2			122315	05/04/21 14:42	F8AU	ELLE
Total/NA	Analysis	351.2		1	124470	05/10/21 10:17	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		25	121032	04/29/21 18:05	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		10	124014	05/07/21 14:24	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:12	NKL9	ELLE

Client Sample ID: S-69D_20210426

Lab Sample ID: 410-37461-5

Date Collected: 04/26/21 13:32

Matrix: Water

Date Received: 04/27/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	121083	04/30/21 20:41	USEJ	ELLE
Total/NA	Prep	3510C			121831	05/03/21 15:45	DN9W	ELLE
Total/NA	Analysis	8270D		1	122141	05/04/21 19:44	UWHS	ELLE
Total/NA	Prep	RSK-175			120921	04/30/21 07:24	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	120910	04/30/21 16:14	LXF2	ELLE
Total/NA	Prep	8011			121300	05/01/21 07:11	UKQ8	ELLE
Total/NA	Analysis	8011		1	121511	05/03/21 13:40	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		20	120899	04/30/21 18:24	GJ35	ELLE
Total Recoverable	Prep	3005A			120103	04/28/21 13:24	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	120542	04/29/21 08:38	MDP5	ELLE
Dissolved	Prep	Non-Digest Prep			120081	04/28/21 12:17	UPJE	ELLE
Dissolved	Analysis	6020A		1	120168	04/28/21 14:57	UCIG	ELLE
Total/NA	Analysis	2320B-2011		1	120654	04/28/21 21:04	DI9Q	ELLE
Total/NA	Prep	351.2			122315	05/04/21 14:42	F8AU	ELLE
Total/NA	Analysis	351.2		1	124470	05/10/21 10:19	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		5	121032	04/29/21 18:37	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	121341	05/01/21 12:55	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	122713	05/05/21 10:15	KGQ6	ELLE

Client Sample ID: S-277_SL_20210426

Lab Sample ID: 410-37461-6

Date Collected: 04/26/21 12:50

Matrix: Water

Date Received: 04/27/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	121083	04/30/21 23:06	USEJ	ELLE
Total/NA	Analysis	8260C/UST	DL	50	121083	04/30/21 23:30	USEJ	ELLE
Total/NA	Prep	3510C			121831	05/03/21 15:45	DN9W	ELLE
Total/NA	Analysis	8270D		1	122141	05/04/21 20:12	UWHS	ELLE
Total/NA	Prep	RSK-175			120921	04/30/21 07:24	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	120910	04/30/21 16:32	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		121552	05/03/21 07:24	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	100	121557	05/03/21 11:28	LXF2	ELLE

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37461-1

Client Sample ID: S-277_SL_20210426

Lab Sample ID: 410-37461-6

Date Collected: 04/26/21 12:50

Matrix: Water

Date Received: 04/27/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			121300	05/01/21 07:11	UKQ8	ELLE
Total/NA	Analysis	8011		1	121511	05/03/21 14:30	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	120899	04/30/21 18:40	GJ35	ELLE
Total Recoverable	Prep	3005A			120103	04/28/21 13:24	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	120542	04/29/21 08:35	MDP5	ELLE
Dissolved	Prep	Non-Digest Prep			120081	04/28/21 12:17	UPJE	ELLE
Dissolved	Analysis	6020A		1	120168	04/28/21 15:11	UCIG	ELLE
Total/NA	Analysis	2320B-2011		1	120654	04/28/21 20:58	DI9Q	ELLE
Total/NA	Prep	351.2			122315	05/04/21 14:42	F8AU	ELLE
Total/NA	Analysis	351.2		1	124470	05/10/21 10:00	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	121032	04/29/21 18:48	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		5	121341	05/01/21 13:10	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	122713	05/05/21 10:15	KGQ6	ELLE

Client Sample ID: TB_20210427

Lab Sample ID: 410-37461-7

Date Collected: 04/27/21 00:00

Matrix: Water

Date Received: 04/27/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	121083	04/30/21 14:16	USEJ	ELLE
Total/NA	Prep	8011			121300	05/01/21 07:11	UKQ8	ELLE
Total/NA	Analysis	8011		1	121511	05/03/21 14:47	UAMZ	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Job ID: 410-37461-1
Project/Site: Former PES Annual GWS

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
5310 B-2011		Water	Total Carbon
SM5310C		Water	Total Inorganic Carbon

Method Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37461-1

Method	Method Description	Protocol	Laboratory
8260C/UST	Volatile Organic Compounds (GC/MS)	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
RSK-175	Dissolved Gases (GC)	RSK	ELLE
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	ELLE
6010C	Metals (ICP)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
2320B-2011	Alkalinity, Total	SM	ELLE
351.2	Nitrogen, Total Kjeldahl	MCAWW	ELLE
5310 B-2011	Carbon, Total and Total Inorganic	SM	ELLE
5310C-2011	Total Organic Carbon/Persulfate - Ultrav	SM	ELLE
SM5310C	Carbon, Total Inorganic	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
351.2	Nitrogen, Total Kjeldahl	MCAWW	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
8011	Microextraction	SW846	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37461-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-37461-1	S-13_20210426	Water	04/26/21 08:00	04/27/21 16:20	
410-37461-2	DUP-3_20210426	Water	04/26/21 08:00	04/27/21 16:20	
410-37461-3	S-20_20210426	Water	04/26/21 09:30	04/27/21 16:20	
410-37461-4	S-199_SL_20210426	Water	04/26/21 09:25	04/27/21 16:20	
410-37461-5	S-69D_20210426	Water	04/26/21 13:32	04/27/21 16:20	
410-37461-6	S-277_SL_20210426	Water	04/26/21 12:50	04/27/21 16:20	
410-37461-7	TB_20210427	Water	04/27/21 00:00	04/27/21 16:20	

Envi Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

410-37461 Chain of Custody

Sample #

Client: Evergreen c/o Stantec			
Project Name/#: Former PES Annual GWS	Site ID #: 16657		
Project Manager: Andrew Bradley	P.O. #: 213403363		
Sampler: Dane Hopkins, Andrea Hill, Doulton Campbell	PWSID #:		
Phone #: 610.840.2541	Quote #:		
State where sample(s) were collected: PA			

Matrix: ☐ Soil ☐ Sediment ☑ Water ☐ Potable ☐ Ground ☐ NPDES ☐ Surface ☐ Other: ☐ Trip Blank / Field Blank

Analyses Requested — Preservation Codes

Sample Identification	Collection Date	Collection Time	Grab	Composite	Total # of Containers	Evergreen Petroleum Short List (refer to attached list of analytes) H / NP	Dissolved Lead (field filtered) N	Total Inorganic Carbon (TIC) P/NP	Sulfate NP	Dissolved Headspace Gases (methane, ethane, ethene) H	Total Iron N	Total Calcium N	Total Kjeldahl Nitrogen (TKN) S	Alkalinity as CaCO3 NP	VOC 8260 / EDB 8011 H	Remarks
S-13_20210426	4/26/2021	8:00	X		18	X	X	X	X	X	X	X	X	X		
DUP-3_20210426	4/26/2021	8:00	X		18	X	X	X	X	X	X	X	X	X		
S-20_20210426	4/26/2021	9:30	X		18	X	X	X	X	X	X	X	X	X		
S-199_SL_20210426	4/26/2021	9:25	X		18	X	X	X	X	X	X	X	X	X		
S-69D_20210426	4/26/2021	13:32	X		18	X	X	X	X	X	X	X	X	X		
S-277_SL_20210426	4/26/2021	12:50	X		18	X	X	X	X	X	X	X	X	X		
TB_20210427	4/12/2021	--			4										X	Trip Blank

For Lab Use Only

SF #: _____

SCR #: _____

Preservation Codes

H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 P = H_3PO_4
O = Other NP = Non-Preserved

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐

(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed:

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: abradley@stantec.com

Phone: 610.840.2541

Data Package Options (please check if required)

Type I (Validation/non-CLP) ☐ MA MCP ☐
Type III (Reduced non-CLP) ☐ CT RCP ☐
Type IV (CLP SOW) ☐ TX TRRP-13 ☐
Type VI (Raw Data Only) ☐

EDD Required? Yes ☑ No ☐ If yes, format: ___ EQUIS

	Relinquished by:	Date	Time	Received by:	Date	Time
1	Dane	4/27/21	1340		4/27/21	1340
2		4/27/21	1605			
3						
4						
5					4/27/21	1620

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt 0.3-0.5 °C

Evergreen Petroleum Short List (June 2016)

VOCs by EPA Method 8260	CAS No.
Benzene	71-43-2
Cumene	98-82-8
Dichloroethane, 1,2-	107-06-2
Ethylbenzene	100-41-4
Ethylene Dibromide*	106-93-4
Methyl tert butyl ether	1634-04-4
Toluene	108-88-3
Trimethylbenzene, 1,2,4-	95-63-6
Trimethylbenzene, 1,3,5-	108-67-8
Xylenes	1330-20-7

SVOCs by EPA Method 8270	CAS No.
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Chrysene	218-01-9
Fluorene	86-73-7
Naphthalene**	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Metals by Method 6010/6020	CAS No.
Lead***	7439-92-1

*Ethylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

**Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

***Metals analysis should be total in soil and dissolved in groundwater.

This list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline and No. 1, 2, 4, 5, 6 Fuel Oils).

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-37461-1

Login Number: 37461
List Number: 1
Creator: Rivera, Tatiana

List Source: Eurofins Lancaster Laboratories Env, LLC

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	True	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-37993-1
Client Project/Site: Former PES Annual GWS

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Mr. Andrew Bradley

Authorized for release by:
5/18/2021 1:03:11 PM

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LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
5/18/2021 1:03:11 PM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 6
Detection Summary 8
Client Sample Results 13
Surrogate Summary 34
QC Sample Results 37
QC Association Summary 57
Lab Chronicle 67
Certification Summary 75
Method Summary 76
Sample Summary 77
Chain of Custody 78
Receipt Checklists 81

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
FH	MS and/or MSD recovery above control limits.

HPLC/IC

Qualifier	Qualifier Description
^c	CCV Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
FH	MS and/or MSD recovery above control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-37993-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-37993-1

Receipt
The samples were received on 4/30/2021 5:24 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 4.0°C, 6.8°C, 6.8°C and 8.4°C

Receipt Exceptions
The following samples were received at the laboratory outside the required temperature criteria: S-384_20210429 (410-37993-1), S-388D_20210429 (410-37993-2), DUP-4_20210429 (410-37993-3), S-306_20210429 (410-37993-4), A-140_20210429 (410-37993-5), A-134_20210429 (410-37993-6), A-19D_20210429 (410-37993-7), S-427_20210429 (410-37993-8), B-169_20210429 (410-37993-9), B-170_20210429 (410-37993-10), S-399_20210429 (410-37993-11), S-398_20210429 (410-37993-12), TB_20210430 (410-37993-13) and A-21D_20210429 (410-37993-14). The client was contacted regarding this issue, and the laboratory was instructed to <CHOOSE_ONE> proceed with/cancel analysis.

All samples were out of temp except for B-169_20210429 and B-170_210210429.

The container label for the following samples did not match the information listed on the Chain-of-Custody (COC): S-384_20210429 (410-37993-1), S-388D_20210429 (410-37993-2), DUP-4_20210429 (410-37993-3), S-306_20210429 (410-37993-4), A-140_20210429 (410-37993-5), A-134_20210429 (410-37993-6), A-19D_20210429 (410-37993-7), S-427_20210429 (410-37993-8), B-169_20210429 (410-37993-9), B-170_20210429 (410-37993-10), S-399_20210429 (410-37993-11), S-398_20210429 (410-37993-12), TB_20210430 (410-37993-13) and A-21D_20210429 (410-37993-14). The lab received one tic container with no designation, collection time or date for the following sample S-427_20210429, while the COC lists the designation, collection date and time. The client was contacted, and the lab was instructed to <EXPLANATION_REQUIRED>.

The container label for the following samples did not match the information listed on the Chain-of-Custody (COC): S-384_20210429 (410-37993-1), S-388D_20210429 (410-37993-2), DUP-4_20210429 (410-37993-3), S-306_20210429 (410-37993-4), A-140_20210429 (410-37993-5), A-134_20210429 (410-37993-6), A-19D_20210429 (410-37993-7), S-427_20210429 (410-37993-8), B-169_20210429 (410-37993-9), B-170_20210429 (410-37993-10), S-399_20210429 (410-37993-11), S-398_20210429 (410-37993-12), TB_20210430 (410-37993-13) and A-21D_20210429 (410-37993-14). The lab received one tic container with no designation, collection time or date for the following sample B-170_20210429, while the COC lists the designation, collection date and time. The client was contacted, and the lab was instructed to <EXPLANATION_REQUIRED>.

GC/MS VOA
Method 8260C_UST: The result for t-Butyl alcohol was above the upper calibration range and is reported as an Estimated ("E") value in samples: S-388D_20210429 (410-37993-2) and DUP-4_20210429 (410-37993-3). This was due to being added after the time of analysis and is the best analytical result achievable.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals

Job ID: 410-37993-1 (Continued)

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

Method 5310C: The reference method requires samples to be preserved to a pH of <2. The following sample(s) were received with insufficient preservation at a pH of 5: DUP-4_20210429 (410-37993-3). The sample(s) were preserved to the appropriate pH in the laboratory.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37993-1

Client Sample ID: S-384_20210429 — Lab Sample ID: 410-37993-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1.0	J	5.0	1.0	ug/L	1		8260C/UST	Total/NA
Isopropylbenzene	1.2	J	5.0	0.20	ug/L	1		8260C/UST	Total/NA
Anthracene	0.15	J	0.54	0.11	ug/L	1		8270D	Total/NA
Fluorene	0.87		0.54	0.13	ug/L	1		8270D	Total/NA
Phenanthrene	1.0		0.54	0.12	ug/L	1		8270D	Total/NA
Pyrene	0.13	J	0.54	0.11	ug/L	1		8270D	Total/NA
Methane (1C) - DL	5500		100	60	ug/L	20		RSK-175	Total/NA
Sulfate	2800	J	5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	45000		500	96	ug/L	1		6010C	Total Recoverable
Iron	2100		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	190000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	1100		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	45000		5000	2500	ug/L	5		5310 B-2011	Total/NA
Total Organic Carbon	2800		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	42000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-388D_20210429 — Lab Sample ID: 410-37993-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloroethane	0.38	J	1.0	0.30	ug/L	1		8260C/UST	Total/NA
Methyl tert-butyl ether	5.6		1.0	0.20	ug/L	1		8260C/UST	Total/NA
t-Butyl alcohol	1000	E	50	12	ug/L	1		8260C/UST	Total/NA
Ethane (1C)	11		5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C)	97		5.0	3.0	ug/L	1		RSK-175	Total/NA
Sulfate	260000		50000	15000	ug/L	50		EPA 300.0 R2.1	Total/NA
Calcium	84000		500	96	ug/L	1		6010C	Total Recoverable
Iron	32000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	240000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	3300		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	150000		5000	2500	ug/L	5		5310 B-2011	Total/NA
Total Organic Carbon	11000		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	140000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: DUP-4_20210429 — Lab Sample ID: 410-37993-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloroethane	0.37	J	1.0	0.30	ug/L	1		8260C/UST	Total/NA
Methyl tert-butyl ether	5.5		1.0	0.20	ug/L	1		8260C/UST	Total/NA
t-Butyl alcohol	1000	E	50	12	ug/L	1		8260C/UST	Total/NA
Ethane (1C)	11		5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C)	95		5.0	3.0	ug/L	1		RSK-175	Total/NA
Sulfate	250000		50000	15000	ug/L	50		EPA 300.0 R2.1	Total/NA
Calcium	85000		500	96	ug/L	1		6010C	Total Recoverable
Iron	32000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	250000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	3200		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	74000		5000	2500	ug/L	5		5310 B-2011	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37993-1

Client Sample ID: DUP-4_20210429 (Continued)

Lab Sample ID: 410-37993-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Organic Carbon	11000		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	63000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-306_20210429

Lab Sample ID: 410-37993-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.1		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Ethylbenzene	0.52	J	1.0	0.40	ug/L	1		8260C/UST	Total/NA
Isopropylbenzene	7.9		5.0	0.20	ug/L	1		8260C/UST	Total/NA
Toluene	0.42	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Xylenes, Total	9.7		6.0	1.4	ug/L	1		8260C/UST	Total/NA
Anthracene	0.37	J	0.54	0.11	ug/L	1		8270D	Total/NA
Fluorene	2.3		0.54	0.13	ug/L	1		8270D	Total/NA
Phenanthrene	1.2		0.54	0.12	ug/L	1		8270D	Total/NA
Pyrene	0.14	J	0.54	0.11	ug/L	1		8270D	Total/NA
Ethane (1C)	1.1	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	13000		250	150	ug/L	50		RSK-175	Total/NA
Calcium	49000		500	96	ug/L	1		6010C	Total Recoverable
Iron	30000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	380000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	30000	J	50000	25000	ug/L	50		351.2	Total/NA
Total Carbon	100000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	11000		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	89000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: A-140_20210429

Lab Sample ID: 410-37993-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.30	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Methane (1C) - DL	8000		250	150	ug/L	50		RSK-175	Total/NA
Calcium	75000		500	96	ug/L	1		6010C	Total Recoverable
Iron	25000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	250000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	3100		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	54000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	4100		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	50000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: A-134_20210429

Lab Sample ID: 410-37993-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	2.1	J	5.0	1.0	ug/L	1		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	1.8	J	5.0	0.30	ug/L	1		8260C/UST	Total/NA
Benzene	38		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Ethylbenzene	0.94	J	1.0	0.40	ug/L	1		8260C/UST	Total/NA
Isopropylbenzene	60		5.0	0.20	ug/L	1		8260C/UST	Total/NA
Toluene	15		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Xylenes, Total	23		6.0	1.4	ug/L	1		8260C/UST	Total/NA
Anthracene	0.91		0.51	0.10	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: A-134_20210429 (Continued)

Lab Sample ID: 410-37993-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.14	J	0.51	0.10	ug/L	1		8270D	Total/NA
Chrysene	0.13	J	0.51	0.10	ug/L	1		8270D	Total/NA
Fluorene	3.4		0.51	0.12	ug/L	1		8270D	Total/NA
Phenanthrene	2.0		0.51	0.11	ug/L	1		8270D	Total/NA
Pyrene	1.2		0.51	0.10	ug/L	1		8270D	Total/NA
Ethane (1C)	24		5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	15000		500	300	ug/L	100		RSK-175	Total/NA
Calcium	67000		500	96	ug/L	1		6010C	Total Recoverable
Iron	8700		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	370000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	2700		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	86000		5000	2500	ug/L	5		5310 B-2011	Total/NA
Total Organic Carbon	12000		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	74000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: A-19D_20210429

Lab Sample ID: 410-37993-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.53	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Isopropylbenzene	0.31	J	5.0	0.20	ug/L	1		8260C/UST	Total/NA
Methyl tert-butyl ether	44		1.0	0.20	ug/L	1		8260C/UST	Total/NA
t-Butyl alcohol	590		50	12	ug/L	1		8260C/UST	Total/NA
Methane (1C) - DL	900		25	15	ug/L	5		RSK-175	Total/NA
Calcium	23000		500	96	ug/L	1		6010C	Total Recoverable
Iron	22000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	150000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	1200		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	42000		5000	2500	ug/L	5		5310 B-2011	Total/NA
Total Organic Carbon	9500		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	33000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-427_20210429

Lab Sample ID: 410-37993-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	0.87		0.55	0.11	ug/L	1		8270D	Total/NA
Benzo[a]anthracene	0.12	J	0.55	0.11	ug/L	1		8270D	Total/NA
Chrysene	0.27	J	0.55	0.11	ug/L	1		8270D	Total/NA
Fluorene	0.81		0.55	0.13	ug/L	1		8270D	Total/NA
Naphthalene	0.17	J	0.55	0.11	ug/L	1		8270D	Total/NA
Phenanthrene	0.72		0.55	0.12	ug/L	1		8270D	Total/NA
Pyrene	0.74		0.55	0.11	ug/L	1		8270D	Total/NA
Methane (1C)	83		5.0	3.0	ug/L	1		RSK-175	Total/NA
Sulfate	18000		5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	72000		500	96	ug/L	1		6010C	Total Recoverable
Iron	1200		200	40	ug/L	1		6010C	Total Recoverable
Lead	0.17	J	0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	240000		8000	8000	ug/L	1		2320B-2011	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: S-427_20210429 (Continued)

Lab Sample ID: 410-37993-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Carbon	57000		5000	2500	ug/L	5		5310 B-2011	Total/NA
Total Organic Carbon	7900		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	49000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: B-169_20210429

Lab Sample ID: 410-37993-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methane (1C)	260		5.0	3.0	ug/L	1		RSK-175	Total/NA
Sulfate	6500		5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	12000		500	96	ug/L	1		6010C	Total Recoverable
Iron	1300		200	40	ug/L	1		6010C	Total Recoverable
Lead	1.6		0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	150000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	610	J	1000	500	ug/L	1		351.2	Total/NA
Total Carbon	37000		5000	2500	ug/L	5		5310 B-2011	Total/NA
Total Organic Carbon	5600		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	31000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: B-170_20210429

Lab Sample ID: 410-37993-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.89	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Isopropylbenzene	6.1		5.0	0.20	ug/L	1		8260C/UST	Total/NA
Toluene	0.39	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Anthracene	0.34	J	0.56	0.11	ug/L	1		8270D	Total/NA
Fluorene	2.2		0.56	0.13	ug/L	1		8270D	Total/NA
Naphthalene	29		0.56	0.11	ug/L	1		8270D	Total/NA
Phenanthrene	1.1		0.56	0.12	ug/L	1		8270D	Total/NA
Ethane (1C)	42		5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	9600		250	150	ug/L	50		RSK-175	Total/NA
Sulfate	6700		5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	7500		500	96	ug/L	1		6010C	Total Recoverable
Iron	570		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	160000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Carbon	73000		5000	2500	ug/L	5		5310 B-2011	Total/NA
Total Organic Carbon	12000		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	61000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-399_20210429

Lab Sample ID: 410-37993-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,3,5-Trimethylbenzene	0.31	J	5.0	0.30	ug/L	1		8260C/UST	Total/NA
Benzene	6.4		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Ethylbenzene	0.83	J	1.0	0.40	ug/L	1		8260C/UST	Total/NA
Isopropylbenzene	0.23	J	5.0	0.20	ug/L	1		8260C/UST	Total/NA
Methyl tert-butyl ether	6.9		1.0	0.20	ug/L	1		8260C/UST	Total/NA
t-Butyl alcohol	600		50	12	ug/L	1		8260C/UST	Total/NA
Toluene	3.4		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Xylenes, Total	4.7	J	6.0	1.4	ug/L	1		8260C/UST	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: S-399_20210429 (Continued)

Lab Sample ID: 410-37993-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.60		0.52	0.10	ug/L	1		8270D	Total/NA
Methane (1C) - DL	550		25	15	ug/L	5		RSK-175	Total/NA
Calcium	24000		500	96	ug/L	1		6010C	Total Recoverable
Iron	20000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	130000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	630	J	1000	500	ug/L	1		351.2	Total/NA
Total Carbon	35000		5000	2500	ug/L	5		5310 B-2011	Total/NA
Total Organic Carbon	9400		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	26000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-398_20210429

Lab Sample ID: 410-37993-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	3.1		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Fluorene	0.24	J	0.54	0.13	ug/L	1		8270D	Total/NA
Methane (1C)	14		5.0	3.0	ug/L	1		RSK-175	Total/NA
Sulfate	270000		50000	15000	ug/L	50		EPA 300.0 R2.1	Total/NA
Calcium	110000		500	96	ug/L	1		6010C	Total Recoverable
Iron	11000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	320000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	2300		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	81000		5000	2500	ug/L	5		5310 B-2011	Total/NA
Total Organic Carbon	11000		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	70000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: TB_20210430

Lab Sample ID: 410-37993-13

No Detections.

Client Sample ID: A-21D_20210429

Lab Sample ID: 410-37993-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.67	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Methyl tert-butyl ether	3.4		1.0	0.20	ug/L	1		8260C/UST	Total/NA
t-Butyl alcohol	23	J	50	12	ug/L	1		8260C/UST	Total/NA
Benzo[a]pyrene	0.13	J	0.50	0.11	ug/L	1		8270D	Total/NA
Fluorene	0.15	J	0.50	0.12	ug/L	1		8270D	Total/NA
Phenanthrene	0.50		0.50	0.11	ug/L	1		8270D	Total/NA
Pyrene	0.33	J	0.50	0.10	ug/L	1		8270D	Total/NA
Ethane (1C)	1.6	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	12000		250	150	ug/L	50		RSK-175	Total/NA
Calcium	45000		500	96	ug/L	1		6010C	Total Recoverable
Iron	49000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	250000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Carbon	75000		5000	2500	ug/L	5		5310 B-2011	Total/NA
Total Organic Carbon	7400		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	68000		2000	600	ug/L	1		SM5310C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37993-1

Client Sample ID: S-384_20210429
Date Collected: 04/29/21 08:15
Date Received: 04/30/21 17:24

Lab Sample ID: 410-37993-1
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**1.0**	**J**	5.0	1.0	ug/L			05/05/21 13:34	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/05/21 13:34	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/05/21 13:34	1
Benzene	ND		1.0	0.20	ug/L			05/05/21 13:34	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/05/21 13:34	1
Isopropylbenzene	**1.2**	**J**	5.0	0.20	ug/L			05/05/21 13:34	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/05/21 13:34	1
t-Butyl alcohol	ND		50	12	ug/L			05/05/21 13:34	1
Toluene	ND		1.0	0.20	ug/L			05/05/21 13:34	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/05/21 13:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*80 - 120*		*05/05/21 13:34*	*1*
4-Bromofluorobenzene (Surr)	*88*		*80 - 120*		*05/05/21 13:34*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*05/05/21 13:34*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/05/21 13:34*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**0.15**	**J**	0.54	0.11	ug/L		05/06/21 10:15	05/10/21 18:13	1
Benzo[a]anthracene	ND		0.54	0.11	ug/L		05/06/21 10:15	05/10/21 18:13	1
Benzo[a]pyrene	ND		0.54	0.12	ug/L		05/06/21 10:15	05/10/21 18:13	1
Benzo[b]fluoranthene	ND		0.54	0.11	ug/L		05/06/21 10:15	05/10/21 18:13	1
Benzo[g,h,i]perylene	ND		0.54	0.11	ug/L		05/06/21 10:15	05/10/21 18:13	1
Chrysene	ND		0.54	0.11	ug/L		05/06/21 10:15	05/10/21 18:13	1
Fluorene	**0.87**		0.54	0.13	ug/L		05/06/21 10:15	05/10/21 18:13	1
Naphthalene	ND		0.54	0.11	ug/L		05/06/21 10:15	05/10/21 18:13	1
Phenanthrene	**1.0**		0.54	0.12	ug/L		05/06/21 10:15	05/10/21 18:13	1
Pyrene	**0.13**	**J**	0.54	0.11	ug/L		05/06/21 10:15	05/10/21 18:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*63*		*44 - 102*	*05/06/21 10:15*	*05/10/21 18:13*	*1*
Nitrobenzene-d5 (Surr)	*68*		*23 - 128*	*05/06/21 10:15*	*05/10/21 18:13*	*1*
p-Terphenyl-d14 (Surr)	*70*		*31 - 113*	*05/06/21 10:15*	*05/10/21 18:13*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/04/21 12:37	05/04/21 16:08	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/04/21 12:37	05/04/21 16:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*84*		*28 - 140*	*05/04/21 12:37*	*05/04/21 16:08*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**5500**		100	60	ug/L		05/06/21 07:40	05/06/21 10:35	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*104*		*28 - 140*	*05/06/21 07:40*	*05/06/21 10:35*	*20*

Client Sample ID: S-384_20210429

Lab Sample ID: 410-37993-1

Date Collected: 04/29/21 08:15

Matrix: Water

Date Received: 04/30/21 17:24

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND	FH	0.029	0.0097	ug/L		05/04/21 18:00	05/05/21 19:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*106*		*46 - 136*	*05/04/21 18:00*	*05/05/21 19:18*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*105*		*46 - 136*	*05/04/21 18:00*	*05/05/21 19:18*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**2800**	**J**	5000	1500	ug/L			05/05/21 00:41	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**45000**		500	96	ug/L		05/05/21 01:31	05/05/21 15:33	1
Iron	**2100**		200	40	ug/L		05/05/21 01:31	05/05/21 15:33	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/05/21 21:39	05/06/21 11:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**190000**		8000	8000	ug/L			05/05/21 03:27	1
Total Kjeldahl Nitrogen	**1100**		1000	500	ug/L		05/04/21 07:20	05/12/21 11:28	1
Total Carbon	**45000**		5000	2500	ug/L			05/05/21 23:12	5
Total Organic Carbon	**2800**		1000	500	ug/L			05/07/21 04:04	1
Total Inorganic Carbon	**42000**		2000	600	ug/L			05/10/21 15:12	1

Client Sample ID: S-388D_20210429

Lab Sample ID: 410-37993-2

Date Collected: 04/29/21 08:55

Matrix: Water

Date Received: 04/30/21 17:24

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/05/21 13:58	1
1,2-Dichloroethane	**0.38**	**J**	1.0	0.30	ug/L			05/05/21 13:58	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/05/21 13:58	1
Benzene	ND		1.0	0.20	ug/L			05/05/21 13:58	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/05/21 13:58	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/05/21 13:58	1
Methyl tert-butyl ether	**5.6**		1.0	0.20	ug/L			05/05/21 13:58	1
t-Butyl alcohol	**1000**	**E**	50	12	ug/L			05/05/21 13:58	1
Toluene	ND		1.0	0.20	ug/L			05/05/21 13:58	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/05/21 13:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*80 - 120*		*05/05/21 13:58*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*05/05/21 13:58*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 120*		*05/05/21 13:58*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/05/21 13:58*	*1*

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37993-1

Client Sample ID: S-388D_20210429

Date Collected: 04/29/21 08:55
Date Received: 04/30/21 17:24

Lab Sample ID: 410-37993-2

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.52	0.10	ug/L		05/06/21 10:15	05/10/21 18:42	1
Benzo[a]anthracene	ND		0.52	0.10	ug/L		05/06/21 10:15	05/10/21 18:42	1
Benzo[a]pyrene	ND		0.52	0.11	ug/L		05/06/21 10:15	05/10/21 18:42	1
Benzo[b]fluoranthene	ND		0.52	0.10	ug/L		05/06/21 10:15	05/10/21 18:42	1
Benzo[g,h,i]perylene	ND		0.52	0.10	ug/L		05/06/21 10:15	05/10/21 18:42	1
Chrysene	ND		0.52	0.10	ug/L		05/06/21 10:15	05/10/21 18:42	1
Fluorene	ND		0.52	0.12	ug/L		05/06/21 10:15	05/10/21 18:42	1
Naphthalene	ND		0.52	0.10	ug/L		05/06/21 10:15	05/10/21 18:42	1
Phenanthrene	ND		0.52	0.11	ug/L		05/06/21 10:15	05/10/21 18:42	1
Pyrene	ND		0.52	0.10	ug/L		05/06/21 10:15	05/10/21 18:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*58*		*44 - 102*	*05/06/21 10:15*	*05/10/21 18:42*	*1*
Nitrobenzene-d5 (Surr)	*62*		*23 - 128*	*05/06/21 10:15*	*05/10/21 18:42*	*1*
p-Terphenyl-d14 (Surr)	*73*		*31 - 113*	*05/06/21 10:15*	*05/10/21 18:42*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**11**		5.0	1.0	ug/L		05/04/21 12:37	05/04/21 16:25	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/04/21 12:37	05/04/21 16:25	1
Methane (1C)	**97**		5.0	3.0	ug/L		05/04/21 12:37	05/04/21 16:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*84*		*28 - 140*	*05/04/21 12:37*	*05/04/21 16:25*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0097	ug/L		05/04/21 18:00	05/05/21 19:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*103*		*46 - 136*	*05/04/21 18:00*	*05/05/21 19:52*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*101*		*46 - 136*	*05/04/21 18:00*	*05/05/21 19:52*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**260000**		50000	15000	ug/L			05/05/21 06:15	50

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**84000**		500	96	ug/L		05/05/21 01:35	05/05/21 14:18	1
Iron	**32000**		200	40	ug/L		05/05/21 01:35	05/05/21 14:18	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/05/21 21:39	05/06/21 11:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**240000**		8000	8000	ug/L			05/05/21 03:47	1
Total Kjeldahl Nitrogen	**3300**		1000	500	ug/L		05/04/21 07:20	05/12/21 11:22	1
Total Carbon	**150000**		5000	2500	ug/L			05/05/21 23:22	5
Total Organic Carbon	**11000**		1000	500	ug/L			05/07/21 04:18	1

Client Sample ID: S-388D_20210429

Lab Sample ID: 410-37993-2

Date Collected: 04/29/21 08:55

Matrix: Water

Date Received: 04/30/21 17:24

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Inorganic Carbon	**140000**		2000	600	ug/L			05/10/21 15:12	1

Client Sample ID: DUP-4_20210429

Lab Sample ID: 410-37993-3

Date Collected: 04/29/21 12:00

Matrix: Water

Date Received: 04/30/21 17:24

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/05/21 14:22	1
1,2-Dichloroethane	**0.37**	**J**	1.0	0.30	ug/L			05/05/21 14:22	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/05/21 14:22	1
Benzene	ND		1.0	0.20	ug/L			05/05/21 14:22	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/05/21 14:22	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/05/21 14:22	1
Methyl tert-butyl ether	**5.5**		1.0	0.20	ug/L			05/05/21 14:22	1
t-Butyl alcohol	**1000**	**E**	50	12	ug/L			05/05/21 14:22	1
Toluene	ND		1.0	0.20	ug/L			05/05/21 14:22	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/05/21 14:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*80 - 120*		*05/05/21 14:22*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*05/05/21 14:22*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*05/05/21 14:22*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*05/05/21 14:22*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.51	0.10	ug/L		05/06/21 10:15	05/10/21 19:11	1
Benzo[a]anthracene	ND		0.51	0.10	ug/L		05/06/21 10:15	05/10/21 19:11	1
Benzo[a]pyrene	ND		0.51	0.11	ug/L		05/06/21 10:15	05/10/21 19:11	1
Benzo[b]fluoranthene	ND		0.51	0.10	ug/L		05/06/21 10:15	05/10/21 19:11	1
Benzo[g,h,i]perylene	ND		0.51	0.10	ug/L		05/06/21 10:15	05/10/21 19:11	1
Chrysene	ND		0.51	0.10	ug/L		05/06/21 10:15	05/10/21 19:11	1
Fluorene	ND		0.51	0.12	ug/L		05/06/21 10:15	05/10/21 19:11	1
Naphthalene	ND		0.51	0.10	ug/L		05/06/21 10:15	05/10/21 19:11	1
Phenanthrene	ND		0.51	0.11	ug/L		05/06/21 10:15	05/10/21 19:11	1
Pyrene	ND		0.51	0.10	ug/L		05/06/21 10:15	05/10/21 19:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*65*		*44 - 102*	*05/06/21 10:15*	*05/10/21 19:11*	*1*
Nitrobenzene-d5 (Surr)	*71*		*23 - 128*	*05/06/21 10:15*	*05/10/21 19:11*	*1*
p-Terphenyl-d14 (Surr)	*77*		*31 - 113*	*05/06/21 10:15*	*05/10/21 19:11*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**11**		5.0	1.0	ug/L		05/04/21 12:37	05/04/21 16:42	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/04/21 12:37	05/04/21 16:42	1
Methane (1C)	**95**		5.0	3.0	ug/L		05/04/21 12:37	05/04/21 16:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*77*		*28 - 140*	*05/04/21 12:37*	*05/04/21 16:42*	*1*

Client Sample ID: DUP-4_20210429

Lab Sample ID: 410-37993-3

Date Collected: 04/29/21 12:00

Matrix: Water

Date Received: 04/30/21 17:24

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0097	ug/L		05/04/21 18:00	05/05/21 20:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*99*		*46 - 136*	*05/04/21 18:00*	*05/05/21 20:09*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*96*		*46 - 136*	*05/04/21 18:00*	*05/05/21 20:09*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**250000**		50000	15000	ug/L			05/05/21 06:45	50

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**85000**		500	96	ug/L		05/05/21 01:35	05/05/21 14:30	1
Iron	**32000**		200	40	ug/L		05/05/21 01:35	05/05/21 14:30	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/05/21 21:39	05/06/21 12:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**250000**		8000	8000	ug/L			05/05/21 04:55	1
Total Kjeldahl Nitrogen	**3200**		1000	500	ug/L		05/04/21 07:20	05/12/21 11:07	1
Total Carbon	**74000**		5000	2500	ug/L			05/05/21 23:33	5
Total Organic Carbon	**11000**		1000	500	ug/L			05/07/21 04:32	1
Total Inorganic Carbon	**63000**		2000	600	ug/L			05/10/21 15:12	1

Client Sample ID: S-306_20210429

Lab Sample ID: 410-37993-4

Date Collected: 04/29/21 09:20

Matrix: Water

Date Received: 04/30/21 17:24

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/05/21 14:46	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/05/21 14:46	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/05/21 14:46	1
Benzene	**1.1**		1.0	0.20	ug/L			05/05/21 14:46	1
Ethylbenzene	**0.52**	**J**	1.0	0.40	ug/L			05/05/21 14:46	1
Isopropylbenzene	**7.9**		5.0	0.20	ug/L			05/05/21 14:46	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/05/21 14:46	1
t-Butyl alcohol	ND		50	12	ug/L			05/05/21 14:46	1
Toluene	**0.42**	**J**	1.0	0.20	ug/L			05/05/21 14:46	1
Xylenes, Total	**9.7**		6.0	1.4	ug/L			05/05/21 14:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*80 - 120*		*05/05/21 14:46*	*1*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*05/05/21 14:46*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*05/05/21 14:46*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*05/05/21 14:46*	*1*

Client Sample ID: S-306_20210429
Date Collected: 04/29/21 09:20
Date Received: 04/30/21 17:24

Lab Sample ID: 410-37993-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**0.37**	**J**	0.54	0.11	ug/L		05/06/21 10:15	05/10/21 19:40	1
Benzo[a]anthracene	ND		0.54	0.11	ug/L		05/06/21 10:15	05/10/21 19:40	1
Benzo[a]pyrene	ND		0.54	0.12	ug/L		05/06/21 10:15	05/10/21 19:40	1
Benzo[b]fluoranthene	ND		0.54	0.11	ug/L		05/06/21 10:15	05/10/21 19:40	1
Benzo[g,h,i]perylene	ND		0.54	0.11	ug/L		05/06/21 10:15	05/10/21 19:40	1
Chrysene	ND		0.54	0.11	ug/L		05/06/21 10:15	05/10/21 19:40	1
Fluorene	**2.3**		0.54	0.13	ug/L		05/06/21 10:15	05/10/21 19:40	1
Naphthalene	ND		0.54	0.11	ug/L		05/06/21 10:15	05/10/21 19:40	1
Phenanthrene	**1.2**		0.54	0.12	ug/L		05/06/21 10:15	05/10/21 19:40	1
Pyrene	**0.14**	**J**	0.54	0.11	ug/L		05/06/21 10:15	05/10/21 19:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*58*		*44 - 102*	*05/06/21 10:15*	*05/10/21 19:40*	*1*
Nitrobenzene-d5 (Surr)	*63*		*23 - 128*	*05/06/21 10:15*	*05/10/21 19:40*	*1*
p-Terphenyl-d14 (Surr)	*85*		*31 - 113*	*05/06/21 10:15*	*05/10/21 19:40*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**1.1**	**J**	5.0	1.0	ug/L		05/04/21 12:37	05/04/21 16:59	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/04/21 12:37	05/04/21 16:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*81*		*28 - 140*	*05/04/21 12:37*	*05/04/21 16:59*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**13000**		250	150	ug/L		05/06/21 07:40	05/06/21 11:19	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*106*		*28 - 140*	*05/06/21 07:40*	*05/06/21 11:19*	*50*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0098	ug/L		05/04/21 18:00	05/05/21 20:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*110*		*46 - 136*	*05/04/21 18:00*	*05/05/21 20:26*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*104*		*46 - 136*	*05/04/21 18:00*	*05/05/21 20:26*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			05/05/21 05:15	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**49000**		500	96	ug/L		05/05/21 01:35	05/05/21 14:21	1
Iron	**30000**		200	40	ug/L		05/05/21 01:35	05/05/21 14:21	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/05/21 21:39	05/06/21 11:42	1

Client Sample ID: S-306_20210429

Lab Sample ID: 410-37993-4

Date Collected: 04/29/21 09:20

Matrix: Water

Date Received: 04/30/21 17:24

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**380000**		8000	8000	ug/L			05/05/21 04:35	1
Total Kjeldahl Nitrogen	**30000**	**J**	50000	25000	ug/L		05/04/21 07:20	05/12/21 10:57	50
Total Carbon	**100000**		10000	5000	ug/L			05/06/21 12:58	10
Total Organic Carbon	**11000**		1000	500	ug/L			05/07/21 04:46	1
Total Inorganic Carbon	**89000**		2000	600	ug/L			05/10/21 15:13	1

Client Sample ID: A-140_20210429

Lab Sample ID: 410-37993-5

Date Collected: 04/29/21 08:50

Matrix: Water

Date Received: 04/30/21 17:24

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/05/21 17:23	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/05/21 17:23	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/05/21 17:23	1
Benzene	**0.30**	**J**	1.0	0.20	ug/L			05/05/21 17:23	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/05/21 17:23	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/05/21 17:23	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/05/21 17:23	1
t-Butyl alcohol	ND		50	12	ug/L			05/05/21 17:23	1
Toluene	ND		1.0	0.20	ug/L			05/05/21 17:23	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/05/21 17:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*80 - 120*		*05/05/21 17:23*	*1*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*05/05/21 17:23*	*1*
Dibromofluoromethane (Surr)	*93*		*80 - 120*		*05/05/21 17:23*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*05/05/21 17:23*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.51	0.10	ug/L		05/06/21 10:15	05/10/21 20:09	1
Benzo[a]anthracene	ND		0.51	0.10	ug/L		05/06/21 10:15	05/10/21 20:09	1
Benzo[a]pyrene	ND		0.51	0.11	ug/L		05/06/21 10:15	05/10/21 20:09	1
Benzo[b]fluoranthene	ND		0.51	0.10	ug/L		05/06/21 10:15	05/10/21 20:09	1
Benzo[g,h,i]perylene	ND		0.51	0.10	ug/L		05/06/21 10:15	05/10/21 20:09	1
Chrysene	ND		0.51	0.10	ug/L		05/06/21 10:15	05/10/21 20:09	1
Fluorene	ND		0.51	0.12	ug/L		05/06/21 10:15	05/10/21 20:09	1
Naphthalene	ND		0.51	0.10	ug/L		05/06/21 10:15	05/10/21 20:09	1
Phenanthrene	ND		0.51	0.11	ug/L		05/06/21 10:15	05/10/21 20:09	1
Pyrene	ND		0.51	0.10	ug/L		05/06/21 10:15	05/10/21 20:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*63*		*44 - 102*	*05/06/21 10:15*	*05/10/21 20:09*	*1*
Nitrobenzene-d5 (Surr)	*70*		*23 - 128*	*05/06/21 10:15*	*05/10/21 20:09*	*1*
p-Terphenyl-d14 (Surr)	*87*		*31 - 113*	*05/06/21 10:15*	*05/10/21 20:09*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/04/21 12:37	05/04/21 17:16	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/04/21 12:37	05/04/21 17:16	1

Client Sample ID: A-140_20210429

Lab Sample ID: 410-37993-5

Date Collected: 04/29/21 08:50

Matrix: Water

Date Received: 04/30/21 17:24

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*83*		*28 - 140*	*05/04/21 12:37*	*05/04/21 17:16*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**8000**		250	150	ug/L		05/06/21 07:40	05/06/21 11:37	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*104*		*28 - 140*	*05/06/21 07:40*	*05/06/21 11:37*	*50*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0097	ug/L		05/04/21 18:00	05/05/21 20:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*101*		*46 - 136*	*05/04/21 18:00*	*05/05/21 20:43*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*96*		*46 - 136*	*05/04/21 18:00*	*05/05/21 20:43*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			05/05/21 07:00	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**75000**		500	96	ug/L		05/05/21 01:35	05/05/21 14:43	1
Iron	**25000**		200	40	ug/L		05/05/21 01:35	05/05/21 14:43	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/05/21 21:39	05/06/21 11:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**250000**		8000	8000	ug/L			05/05/21 05:38	1
Total Kjeldahl Nitrogen	**3100**		1000	500	ug/L		05/04/21 07:20	05/12/21 11:30	1
Total Carbon	**54000**		10000	5000	ug/L			05/06/21 00:39	10
Total Organic Carbon	**4100**		1000	500	ug/L			05/07/21 05:28	1
Total Inorganic Carbon	**50000**		2000	600	ug/L			05/10/21 15:13	1

Client Sample ID: A-134_20210429

Lab Sample ID: 410-37993-6

Date Collected: 04/29/21 09:55

Matrix: Water

Date Received: 04/30/21 17:24

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**2.1**	**J**	5.0	1.0	ug/L			05/06/21 18:18	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/06/21 18:18	1
1,3,5-Trimethylbenzene	**1.8**	**J**	5.0	0.30	ug/L			05/06/21 18:18	1
Benzene	**38**		1.0	0.20	ug/L			05/06/21 18:18	1
Ethylbenzene	**0.94**	**J**	1.0	0.40	ug/L			05/06/21 18:18	1
Isopropylbenzene	**60**		5.0	0.20	ug/L			05/06/21 18:18	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/06/21 18:18	1
t-Butyl alcohol	ND		50	12	ug/L			05/06/21 18:18	1

Client Sample ID: A-134_20210429
Date Collected: 04/29/21 09:55
Date Received: 04/30/21 17:24

Lab Sample ID: 410-37993-6
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	**15**		1.0	0.20	ug/L			05/06/21 18:18	1
Xylenes, Total	**23**		6.0	1.4	ug/L			05/06/21 18:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*81*		*80 - 120*		*05/06/21 18:18*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*05/06/21 18:18*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*05/06/21 18:18*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/06/21 18:18*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**0.91**		0.51	0.10	ug/L		05/06/21 15:57	05/07/21 21:04	1
Benzo[a]anthracene	**0.14**	**J**	0.51	0.10	ug/L		05/06/21 15:57	05/07/21 21:04	1
Benzo[a]pyrene	ND		0.51	0.11	ug/L		05/06/21 15:57	05/07/21 21:04	1
Benzo[b]fluoranthene	ND		0.51	0.10	ug/L		05/06/21 15:57	05/07/21 21:04	1
Benzo[g,h,i]perylene	ND		0.51	0.10	ug/L		05/06/21 15:57	05/07/21 21:04	1
Chrysene	**0.13**	**J**	0.51	0.10	ug/L		05/06/21 15:57	05/07/21 21:04	1
Fluorene	**3.4**		0.51	0.12	ug/L		05/06/21 15:57	05/07/21 21:04	1
Naphthalene	ND		0.51	0.10	ug/L		05/06/21 15:57	05/07/21 21:04	1
Phenanthrene	**2.0**		0.51	0.11	ug/L		05/06/21 15:57	05/07/21 21:04	1
Pyrene	**1.2**		0.51	0.10	ug/L		05/06/21 15:57	05/07/21 21:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*73*		*44 - 102*	*05/06/21 15:57*	*05/07/21 21:04*	*1*
Nitrobenzene-d5 (Surr)	*75*		*23 - 128*	*05/06/21 15:57*	*05/07/21 21:04*	*1*
p-Terphenyl-d14 (Surr)	*90*		*31 - 113*	*05/06/21 15:57*	*05/07/21 21:04*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**24**		5.0	1.0	ug/L		05/04/21 12:37	05/04/21 17:49	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/04/21 12:37	05/04/21 17:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*77*		*28 - 140*	*05/04/21 12:37*	*05/04/21 17:49*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**15000**		500	300	ug/L		05/05/21 08:50	05/05/21 12:42	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*97*		*28 - 140*	*05/05/21 08:50*	*05/05/21 12:42*	*100*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0097	ug/L		05/04/21 18:00	05/05/21 21:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*110*		*46 - 136*	*05/04/21 18:00*	*05/05/21 21:00*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*100*		*46 - 136*	*05/04/21 18:00*	*05/05/21 21:00*	*1*

Client Sample ID: A-134_20210429

Lab Sample ID: 410-37993-6

Date Collected: 04/29/21 09:55
Matrix: Water
Date Received: 04/30/21 17:24

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			05/05/21 07:45	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**67000**		500	96	ug/L		05/05/21 01:35	05/05/21 14:00	1
Iron	**8700**		200	40	ug/L		05/05/21 01:35	05/05/21 14:00	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/05/21 21:39	05/06/21 11:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**370000**		8000	8000	ug/L			05/05/21 04:42	1
Total Kjeldahl Nitrogen	**2700**		1000	500	ug/L		05/04/21 07:20	05/12/21 11:16	1
Total Carbon	**86000**		5000	2500	ug/L			05/06/21 01:11	5
Total Organic Carbon	**12000**		1000	500	ug/L			05/07/21 05:42	1
Total Inorganic Carbon	**74000**		2000	600	ug/L			05/10/21 15:13	1

Client Sample ID: A-19D_20210429

Lab Sample ID: 410-37993-7

Date Collected: 04/29/21 11:20
Matrix: Water
Date Received: 04/30/21 17:24

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/05/21 18:11	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/05/21 18:11	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/05/21 18:11	1
Benzene	**0.53**	**J**	1.0	0.20	ug/L			05/05/21 18:11	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/05/21 18:11	1
Isopropylbenzene	**0.31**	**J**	5.0	0.20	ug/L			05/05/21 18:11	1
Methyl tert-butyl ether	**44**		1.0	0.20	ug/L			05/05/21 18:11	1
t-Butyl alcohol	**590**		50	12	ug/L			05/05/21 18:11	1
Toluene	ND		1.0	0.20	ug/L			05/05/21 18:11	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/05/21 18:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*		*05/05/21 18:11*	*1*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*05/05/21 18:11*	*1*
Dibromofluoromethane (Surr)	*91*		*80 - 120*		*05/05/21 18:11*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*05/05/21 18:11*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/06/21 15:57	05/07/21 21:33	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/06/21 15:57	05/07/21 21:33	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/06/21 15:57	05/07/21 21:33	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/06/21 15:57	05/07/21 21:33	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/06/21 15:57	05/07/21 21:33	1
Chrysene	ND		0.50	0.10	ug/L		05/06/21 15:57	05/07/21 21:33	1
Fluorene	ND		0.50	0.12	ug/L		05/06/21 15:57	05/07/21 21:33	1

Client Sample ID: A-19D_20210429
Date Collected: 04/29/21 11:20
Date Received: 04/30/21 17:24

Lab Sample ID: 410-37993-7
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.50	0.10	ug/L		05/06/21 15:57	05/07/21 21:33	1
Phenanthrene	ND		0.50	0.11	ug/L		05/06/21 15:57	05/07/21 21:33	1
Pyrene	ND		0.50	0.10	ug/L		05/06/21 15:57	05/07/21 21:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*71*		*44 - 102*	*05/06/21 15:57*	*05/07/21 21:33*	*1*
Nitrobenzene-d5 (Surr)	*73*		*23 - 128*	*05/06/21 15:57*	*05/07/21 21:33*	*1*
p-Terphenyl-d14 (Surr)	*70*		*31 - 113*	*05/06/21 15:57*	*05/07/21 21:33*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/04/21 12:37	05/04/21 18:06	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/04/21 12:37	05/04/21 18:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*85*		*28 - 140*	*05/04/21 12:37*	*05/04/21 18:06*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**900**		25	15	ug/L		05/06/21 07:40	05/06/21 11:56	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*90*		*28 - 140*	*05/06/21 07:40*	*05/06/21 11:56*	*5*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.0099	ug/L		05/04/21 18:00	05/05/21 21:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*101*		*46 - 136*	*05/04/21 18:00*	*05/05/21 21:17*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*104*		*46 - 136*	*05/04/21 18:00*	*05/05/21 21:17*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			05/05/21 08:16	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**23000**		500	96	ug/L		05/05/21 01:31	05/05/21 14:23	1
Iron	**22000**		200	40	ug/L		05/05/21 01:31	05/05/21 14:23	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/05/21 21:39	05/06/21 11:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**150000**		8000	8000	ug/L			05/05/21 04:28	1
Total Kjeldahl Nitrogen	**1200**		1000	500	ug/L		05/04/21 07:20	05/12/21 11:09	1
Total Carbon	**42000**		5000	2500	ug/L			05/06/21 01:22	5
Total Organic Carbon	**9500**		1000	500	ug/L			05/07/21 05:56	1
Total Inorganic Carbon	**33000**		2000	600	ug/L			05/10/21 15:13	1

Client Sample ID: S-427_20210429
Date Collected: 04/29/21 10:40
Date Received: 04/30/21 17:24

Lab Sample ID: 410-37993-8
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/05/21 18:35	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/05/21 18:35	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/05/21 18:35	1
Benzene	ND		1.0	0.20	ug/L			05/05/21 18:35	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/05/21 18:35	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/05/21 18:35	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/05/21 18:35	1
t-Butyl alcohol	ND		50	12	ug/L			05/05/21 18:35	1
Toluene	ND		1.0	0.20	ug/L			05/05/21 18:35	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/05/21 18:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*		*05/05/21 18:35*	*1*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*05/05/21 18:35*	*1*
Dibromofluoromethane (Surr)	*92*		*80 - 120*		*05/05/21 18:35*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*05/05/21 18:35*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**0.87**		0.55	0.11	ug/L		05/06/21 15:57	05/07/21 22:02	1
Benzo[a]anthracene	**0.12**	**J**	0.55	0.11	ug/L		05/06/21 15:57	05/07/21 22:02	1
Benzo[a]pyrene	ND		0.55	0.12	ug/L		05/06/21 15:57	05/07/21 22:02	1
Benzo[b]fluoranthene	ND		0.55	0.11	ug/L		05/06/21 15:57	05/07/21 22:02	1
Benzo[g,h,i]perylene	ND		0.55	0.11	ug/L		05/06/21 15:57	05/07/21 22:02	1
Chrysene	**0.27**	**J**	0.55	0.11	ug/L		05/06/21 15:57	05/07/21 22:02	1
Fluorene	**0.81**		0.55	0.13	ug/L		05/06/21 15:57	05/07/21 22:02	1
Naphthalene	**0.17**	**J**	0.55	0.11	ug/L		05/06/21 15:57	05/07/21 22:02	1
Phenanthrene	**0.72**		0.55	0.12	ug/L		05/06/21 15:57	05/07/21 22:02	1
Pyrene	**0.74**		0.55	0.11	ug/L		05/06/21 15:57	05/07/21 22:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*71*		*44 - 102*	*05/06/21 15:57*	*05/07/21 22:02*	*1*
Nitrobenzene-d5 (Surr)	*71*		*23 - 128*	*05/06/21 15:57*	*05/07/21 22:02*	*1*
p-Terphenyl-d14 (Surr)	*76*		*31 - 113*	*05/06/21 15:57*	*05/07/21 22:02*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/04/21 12:37	05/04/21 18:23	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/04/21 12:37	05/04/21 18:23	1
Methane (1C)	**83**		5.0	3.0	ug/L		05/04/21 12:37	05/04/21 18:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*84*		*28 - 140*	*05/04/21 12:37*	*05/04/21 18:23*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0097	ug/L		05/04/21 18:00	05/05/21 21:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*100*		*46 - 136*	*05/04/21 18:00*	*05/05/21 21:34*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*99*		*46 - 136*	*05/04/21 18:00*	*05/05/21 21:34*	*1*

Client Sample ID: S-427_20210429

Lab Sample ID: 410-37993-8

Date Collected: 04/29/21 10:40
Matrix: Water
Date Received: 04/30/21 17:24

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**18000**		5000	1500	ug/L			05/05/21 08:31	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**72000**		500	96	ug/L		05/05/21 01:31	05/05/21 15:17	1
Iron	**1200**		200	40	ug/L		05/05/21 01:31	05/05/21 15:17	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.17**	**J**	0.52	0.073	ug/L		05/05/21 21:39	05/06/21 11:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**240000**		8000	8000	ug/L			05/06/21 22:33	1
Total Kjeldahl Nitrogen	ND	FH	1000	500	ug/L		05/04/21 07:20	05/12/21 10:51	1
Total Carbon	**57000**		5000	2500	ug/L			05/06/21 01:33	5
Total Organic Carbon	**7900**		1000	500	ug/L			05/07/21 06:10	1
Total Inorganic Carbon	**49000**		2000	600	ug/L			05/10/21 15:13	1

Client Sample ID: B-169_20210429

Lab Sample ID: 410-37993-9

Date Collected: 04/29/21 12:20
Matrix: Water
Date Received: 04/30/21 17:24

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/05/21 18:59	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/05/21 18:59	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/05/21 18:59	1
Benzene	ND		1.0	0.20	ug/L			05/05/21 18:59	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/05/21 18:59	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/05/21 18:59	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/05/21 18:59	1
t-Butyl alcohol	ND		50	12	ug/L			05/05/21 18:59	1
Toluene	ND		1.0	0.20	ug/L			05/05/21 18:59	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/05/21 18:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*80 - 120*		*05/05/21 18:59*	*1*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*		*05/05/21 18:59*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*05/05/21 18:59*	*1*
Toluene-d8 (Surr)	*110*		*80 - 120*		*05/05/21 18:59*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.55	0.11	ug/L		05/06/21 15:57	05/07/21 22:31	1
Benzo[a]anthracene	ND		0.55	0.11	ug/L		05/06/21 15:57	05/07/21 22:31	1
Benzo[a]pyrene	ND		0.55	0.12	ug/L		05/06/21 15:57	05/07/21 22:31	1
Benzo[b]fluoranthene	ND		0.55	0.11	ug/L		05/06/21 15:57	05/07/21 22:31	1
Benzo[g,h,i]perylene	ND		0.55	0.11	ug/L		05/06/21 15:57	05/07/21 22:31	1
Chrysene	ND		0.55	0.11	ug/L		05/06/21 15:57	05/07/21 22:31	1
Fluorene	ND		0.55	0.13	ug/L		05/06/21 15:57	05/07/21 22:31	1

Client Sample ID: B-169_20210429
Date Collected: 04/29/21 12:20
Date Received: 04/30/21 17:24

Lab Sample ID: 410-37993-9
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.55	0.11	ug/L		05/06/21 15:57	05/07/21 22:31	1
Phenanthrene	ND		0.55	0.12	ug/L		05/06/21 15:57	05/07/21 22:31	1
Pyrene	ND		0.55	0.11	ug/L		05/06/21 15:57	05/07/21 22:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*70*		*44 - 102*	*05/06/21 15:57*	*05/07/21 22:31*	*1*
Nitrobenzene-d5 (Surr)	*72*		*23 - 128*	*05/06/21 15:57*	*05/07/21 22:31*	*1*
p-Terphenyl-d14 (Surr)	*66*		*31 - 113*	*05/06/21 15:57*	*05/07/21 22:31*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/04/21 12:37	05/04/21 18:40	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/04/21 12:37	05/04/21 18:40	1
Methane (1C)	**260**		5.0	3.0	ug/L		05/04/21 12:37	05/04/21 18:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*88*		*28 - 140*	*05/04/21 12:37*	*05/04/21 18:40*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0098	ug/L		05/04/21 18:00	05/05/21 21:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*94*		*46 - 136*	*05/04/21 18:00*	*05/05/21 21:51*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*95*		*46 - 136*	*05/04/21 18:00*	*05/05/21 21:51*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**6500**		5000	1500	ug/L			05/05/21 09:01	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**12000**		500	96	ug/L		05/05/21 01:31	05/05/21 15:30	1
Iron	**1300**		200	40	ug/L		05/05/21 01:31	05/05/21 15:30	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**1.6**		0.52	0.073	ug/L		05/05/21 21:39	05/06/21 11:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**150000**		8000	8000	ug/L			05/05/21 05:31	1
Total Kjeldahl Nitrogen	**610**	**J**	1000	500	ug/L		05/04/21 07:20	05/12/21 11:32	1
Total Carbon	**37000**		5000	2500	ug/L			05/06/21 01:43	5
Total Organic Carbon	**5600**		1000	500	ug/L			05/07/21 06:24	1
Total Inorganic Carbon	**31000**		2000	600	ug/L			05/10/21 15:13	1

Client Sample ID: B-170_20210429
Date Collected: 04/29/21 13:40
Date Received: 04/30/21 17:24

Lab Sample ID: 410-37993-10
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/06/21 18:41	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/06/21 18:41	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/06/21 18:41	1
Benzene	**0.89**	**J**	1.0	0.20	ug/L			05/06/21 18:41	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/06/21 18:41	1
Isopropylbenzene	**6.1**		5.0	0.20	ug/L			05/06/21 18:41	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/06/21 18:41	1
t-Butyl alcohol	ND		50	12	ug/L			05/06/21 18:41	1
Toluene	**0.39**	**J**	1.0	0.20	ug/L			05/06/21 18:41	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/06/21 18:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*84*		*80 - 120*		*05/06/21 18:41*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*05/06/21 18:41*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*05/06/21 18:41*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/06/21 18:41*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**0.34**	**J**	0.56	0.11	ug/L		05/06/21 15:57	05/07/21 23:00	1
Benzo[a]anthracene	ND		0.56	0.11	ug/L		05/06/21 15:57	05/07/21 23:00	1
Benzo[a]pyrene	ND		0.56	0.12	ug/L		05/06/21 15:57	05/07/21 23:00	1
Benzo[b]fluoranthene	ND		0.56	0.11	ug/L		05/06/21 15:57	05/07/21 23:00	1
Benzo[g,h,i]perylene	ND		0.56	0.11	ug/L		05/06/21 15:57	05/07/21 23:00	1
Chrysene	ND		0.56	0.11	ug/L		05/06/21 15:57	05/07/21 23:00	1
Fluorene	**2.2**		0.56	0.13	ug/L		05/06/21 15:57	05/07/21 23:00	1
Naphthalene	**29**		0.56	0.11	ug/L		05/06/21 15:57	05/07/21 23:00	1
Phenanthrene	**1.1**		0.56	0.12	ug/L		05/06/21 15:57	05/07/21 23:00	1
Pyrene	ND		0.56	0.11	ug/L		05/06/21 15:57	05/07/21 23:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*74*		*44 - 102*	*05/06/21 15:57*	*05/07/21 23:00*	*1*
Nitrobenzene-d5 (Surr)	*74*		*23 - 128*	*05/06/21 15:57*	*05/07/21 23:00*	*1*
p-Terphenyl-d14 (Surr)	*78*		*31 - 113*	*05/06/21 15:57*	*05/07/21 23:00*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**42**		5.0	1.0	ug/L		05/04/21 12:37	05/04/21 18:57	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/04/21 12:37	05/04/21 18:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*89*		*28 - 140*	*05/04/21 12:37*	*05/04/21 18:57*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**9600**		250	150	ug/L		05/06/21 07:40	05/06/21 12:14	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*104*		*28 - 140*	*05/06/21 07:40*	*05/06/21 12:14*	*50*

Client Sample ID: B-170_20210429

Lab Sample ID: 410-37993-10

Date Collected: 04/29/21 13:40

Matrix: Water

Date Received: 04/30/21 17:24

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0098	ug/L		05/05/21 19:45	05/06/21 09:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*99*		*46 - 136*	*05/05/21 19:45*	*05/06/21 09:42*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*108*		*46 - 136*	*05/05/21 19:45*	*05/06/21 09:42*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**6700**		5000	1500	ug/L			05/05/21 09:16	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**7500**		500	96	ug/L		05/05/21 01:31	05/05/21 15:26	1
Iron	**570**		200	40	ug/L		05/05/21 01:31	05/05/21 15:26	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/05/21 21:39	05/06/21 11:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**160000**		8000	8000	ug/L			05/05/21 04:49	1
Total Kjeldahl Nitrogen	ND		1000	500	ug/L		05/04/21 07:20	05/12/21 11:18	1
Total Carbon	**73000**		5000	2500	ug/L			05/06/21 01:54	5
Total Organic Carbon	**12000**		1000	500	ug/L			05/07/21 07:06	1
Total Inorganic Carbon	**61000**		2000	600	ug/L			05/10/21 15:13	1

Client Sample ID: S-399_20210429

Lab Sample ID: 410-37993-11

Date Collected: 04/29/21 14:30

Matrix: Water

Date Received: 04/30/21 17:24

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/05/21 19:48	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/05/21 19:48	1
1,3,5-Trimethylbenzene	**0.31**	**J**	5.0	0.30	ug/L			05/05/21 19:48	1
Benzene	**6.4**		1.0	0.20	ug/L			05/05/21 19:48	1
Ethylbenzene	**0.83**	**J**	1.0	0.40	ug/L			05/05/21 19:48	1
Isopropylbenzene	**0.23**	**J**	5.0	0.20	ug/L			05/05/21 19:48	1
Methyl tert-butyl ether	**6.9**		1.0	0.20	ug/L			05/05/21 19:48	1
t-Butyl alcohol	**600**		50	12	ug/L			05/05/21 19:48	1
Toluene	**3.4**		1.0	0.20	ug/L			05/05/21 19:48	1
Xylenes, Total	**4.7**	**J**	6.0	1.4	ug/L			05/05/21 19:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*80 - 120*		*05/05/21 19:48*	*1*
4-Bromofluorobenzene (Surr)	*107*		*80 - 120*		*05/05/21 19:48*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*05/05/21 19:48*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/05/21 19:48*	*1*

Client Sample ID: S-399_20210429
Date Collected: 04/29/21 14:30
Date Received: 04/30/21 17:24

Lab Sample ID: 410-37993-11
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.52	0.10	ug/L		05/06/21 15:57	05/07/21 23:29	1
Benzo[a]anthracene	ND		0.52	0.10	ug/L		05/06/21 15:57	05/07/21 23:29	1
Benzo[a]pyrene	ND		0.52	0.12	ug/L		05/06/21 15:57	05/07/21 23:29	1
Benzo[b]fluoranthene	ND		0.52	0.10	ug/L		05/06/21 15:57	05/07/21 23:29	1
Benzo[g,h,i]perylene	ND		0.52	0.10	ug/L		05/06/21 15:57	05/07/21 23:29	1
Chrysene	ND		0.52	0.10	ug/L		05/06/21 15:57	05/07/21 23:29	1
Fluorene	ND		0.52	0.13	ug/L		05/06/21 15:57	05/07/21 23:29	1
Naphthalene	**0.60**		0.52	0.10	ug/L		05/06/21 15:57	05/07/21 23:29	1
Phenanthrene	ND		0.52	0.12	ug/L		05/06/21 15:57	05/07/21 23:29	1
Pyrene	ND		0.52	0.10	ug/L		05/06/21 15:57	05/07/21 23:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*81*		*44 - 102*	*05/06/21 15:57*	*05/07/21 23:29*	*1*
Nitrobenzene-d5 (Surr)	*82*		*23 - 128*	*05/06/21 15:57*	*05/07/21 23:29*	*1*
p-Terphenyl-d14 (Surr)	*82*		*31 - 113*	*05/06/21 15:57*	*05/07/21 23:29*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/04/21 12:37	05/04/21 19:14	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/04/21 12:37	05/04/21 19:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*89*		*28 - 140*	*05/04/21 12:37*	*05/04/21 19:14*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**550**		25	15	ug/L		05/06/21 07:40	05/06/21 12:32	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*93*		*28 - 140*	*05/06/21 07:40*	*05/06/21 12:32*	*5*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0097	ug/L		05/05/21 19:45	05/06/21 09:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*107*		*46 - 136*	*05/05/21 19:45*	*05/06/21 09:59*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*102*		*46 - 136*	*05/05/21 19:45*	*05/06/21 09:59*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			05/05/21 09:31	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**24000**		500	96	ug/L		05/05/21 01:31	05/05/21 15:23	1
Iron	**20000**		200	40	ug/L		05/05/21 01:31	05/05/21 15:23	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/05/21 21:39	05/06/21 12:05	1

Client Sample ID: S-399_20210429

Lab Sample ID: 410-37993-11

Date Collected: 04/29/21 14:30

Matrix: Water

Date Received: 04/30/21 17:24

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**130000**		8000	8000	ug/L			05/05/21 05:02	1
Total Kjeldahl Nitrogen	**630**	**J**	1000	500	ug/L		05/04/21 07:20	05/12/21 11:05	1
Total Carbon	**35000**		5000	2500	ug/L			05/06/21 02:27	5
Total Organic Carbon	**9400**		1000	500	ug/L			05/07/21 07:20	1
Total Inorganic Carbon	**26000**		2000	600	ug/L			05/10/21 15:13	1

Client Sample ID: S-398_20210429

Lab Sample ID: 410-37993-12

Date Collected: 04/29/21 10:40

Matrix: Water

Date Received: 04/30/21 17:24

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/05/21 20:12	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/05/21 20:12	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/05/21 20:12	1
Benzene	ND		1.0	0.20	ug/L			05/05/21 20:12	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/05/21 20:12	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/05/21 20:12	1
Methyl tert-butyl ether	**3.1**		1.0	0.20	ug/L			05/05/21 20:12	1
t-Butyl alcohol	ND		50	12	ug/L			05/05/21 20:12	1
Toluene	ND		1.0	0.20	ug/L			05/05/21 20:12	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/05/21 20:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*80 - 120*		*05/05/21 20:12*	*1*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*05/05/21 20:12*	*1*
Dibromofluoromethane (Surr)	*93*		*80 - 120*		*05/05/21 20:12*	*1*
Toluene-d8 (Surr)	*107*		*80 - 120*		*05/05/21 20:12*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.54	0.11	ug/L		05/06/21 10:15	05/11/21 03:23	1
Benzo[a]anthracene	ND		0.54	0.11	ug/L		05/06/21 10:15	05/11/21 03:23	1
Benzo[a]pyrene	ND		0.54	0.12	ug/L		05/06/21 10:15	05/11/21 03:23	1
Benzo[b]fluoranthene	ND		0.54	0.11	ug/L		05/06/21 10:15	05/11/21 03:23	1
Benzo[g,h,i]perylene	ND		0.54	0.11	ug/L		05/06/21 10:15	05/11/21 03:23	1
Chrysene	ND		0.54	0.11	ug/L		05/06/21 10:15	05/11/21 03:23	1
Fluorene	**0.24**	**J**	0.54	0.13	ug/L		05/06/21 10:15	05/11/21 03:23	1
Naphthalene	ND		0.54	0.11	ug/L		05/06/21 10:15	05/11/21 03:23	1
Phenanthrene	ND		0.54	0.12	ug/L		05/06/21 10:15	05/11/21 03:23	1
Pyrene	ND		0.54	0.11	ug/L		05/06/21 10:15	05/11/21 03:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*74*		*44 - 102*	*05/06/21 10:15*	*05/11/21 03:23*	*1*
Nitrobenzene-d5 (Surr)	*75*		*23 - 128*	*05/06/21 10:15*	*05/11/21 03:23*	*1*
p-Terphenyl-d14 (Surr)	*83*		*31 - 113*	*05/06/21 10:15*	*05/11/21 03:23*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/04/21 12:37	05/04/21 19:30	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/04/21 12:37	05/04/21 19:30	1

Client Sample ID: S-398_20210429

Lab Sample ID: 410-37993-12

Date Collected: 04/29/21 10:40

Matrix: Water

Date Received: 04/30/21 17:24

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**14**		5.0	3.0	ug/L		05/04/21 12:37	05/04/21 19:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*85*		*28 - 140*	*05/04/21 12:37*	*05/04/21 19:30*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0097	ug/L		05/05/21 19:45	05/06/21 10:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*108*		*46 - 136*	*05/05/21 19:45*	*05/06/21 10:16*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*105*		*46 - 136*	*05/05/21 19:45*	*05/06/21 10:16*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**270000**		50000	15000	ug/L			05/05/21 09:46	50

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**110000**		500	96	ug/L		05/05/21 01:31	05/05/21 15:04	1
Iron	**11000**		200	40	ug/L		05/05/21 01:31	05/05/21 15:04	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/05/21 21:39	05/06/21 11:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**320000**		8000	8000	ug/L			05/05/21 05:25	1
Total Kjeldahl Nitrogen	**2300**		1000	500	ug/L		05/04/21 07:20	05/12/21 11:03	1
Total Carbon	**81000**		5000	2500	ug/L			05/06/21 02:38	5
Total Organic Carbon	**11000**		1000	500	ug/L			05/07/21 07:34	1
Total Inorganic Carbon	**70000**		2000	600	ug/L			05/10/21 15:13	1

Client Sample ID: TB_20210430

Lab Sample ID: 410-37993-13

Date Collected: 04/30/21 00:00

Matrix: Water

Date Received: 04/30/21 17:24

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/05/21 12:45	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/05/21 12:45	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/05/21 12:45	1
Benzene	ND		1.0	0.20	ug/L			05/05/21 12:45	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/05/21 12:45	1
Ethylene Dibromide	ND		1.0	0.20	ug/L			05/05/21 12:45	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/05/21 12:45	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/05/21 12:45	1
Naphthalene	ND		5.0	1.0	ug/L			05/05/21 12:45	1
t-Butyl alcohol	ND		50	12	ug/L			05/05/21 12:45	1
Toluene	ND		1.0	0.20	ug/L			05/05/21 12:45	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/05/21 12:45	1

Client Sample ID: TB_20210430

Lab Sample ID: 410-37993-13

Date Collected: 04/30/21 00:00

Matrix: Water

Date Received: 04/30/21 17:24

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*97*		*80 - 120*		*05/05/21 12:45*	*1*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*		*05/05/21 12:45*	*1*
Dibromofluoromethane (Surr)	*93*		*80 - 120*		*05/05/21 12:45*	*1*
Toluene-d8 (Surr)	*105*		*80 - 120*		*05/05/21 12:45*	*1*

Client Sample ID: A-21D_20210429

Lab Sample ID: 410-37993-14

Date Collected: 04/29/21 14:20

Matrix: Water

Date Received: 04/30/21 17:24

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/05/21 14:21	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/05/21 14:21	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/05/21 14:21	1
Benzene	**0.67**	**J**	1.0	0.20	ug/L			05/05/21 14:21	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/05/21 14:21	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/05/21 14:21	1
Methyl tert-butyl ether	**3.4**		1.0	0.20	ug/L			05/05/21 14:21	1
t-Butyl alcohol	**23**	**J**	50	12	ug/L			05/05/21 14:21	1
Toluene	ND		1.0	0.20	ug/L			05/05/21 14:21	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/05/21 14:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 120*		*05/05/21 14:21*	*1*
4-Bromofluorobenzene (Surr)	*107*		*80 - 120*		*05/05/21 14:21*	*1*
Dibromofluoromethane (Surr)	*99*		*80 - 120*		*05/05/21 14:21*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/05/21 14:21*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/06/21 10:15	05/11/21 03:53	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/06/21 10:15	05/11/21 03:53	1
Benzo[a]pyrene	**0.13**	**J**	0.50	0.11	ug/L		05/06/21 10:15	05/11/21 03:53	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/06/21 10:15	05/11/21 03:53	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/06/21 10:15	05/11/21 03:53	1
Chrysene	ND		0.50	0.10	ug/L		05/06/21 10:15	05/11/21 03:53	1
Fluorene	**0.15**	**J**	0.50	0.12	ug/L		05/06/21 10:15	05/11/21 03:53	1
Naphthalene	ND		0.50	0.10	ug/L		05/06/21 10:15	05/11/21 03:53	1
Phenanthrene	**0.50**		0.50	0.11	ug/L		05/06/21 10:15	05/11/21 03:53	1
Pyrene	**0.33**	**J**	0.50	0.10	ug/L		05/06/21 10:15	05/11/21 03:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	*77*		*44 - 102*	*05/06/21 10:15*	*05/11/21 03:53*	*1*
Nitrobenzene-d5 (Surr)	*55*		*23 - 128*	*05/06/21 10:15*	*05/11/21 03:53*	*1*
p-Terphenyl-d14 (Surr)	*69*		*31 - 113*	*05/06/21 10:15*	*05/11/21 03:53*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**1.6**	**J**	5.0	1.0	ug/L		05/04/21 12:37	05/04/21 19:47	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/04/21 12:37	05/04/21 19:47	1

Client Sample ID: A-21D_20210429
Date Collected: 04/29/21 14:20
Date Received: 04/30/21 17:24

Lab Sample ID: 410-37993-14
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*83*		*28 - 140*	*05/04/21 12:37*	*05/04/21 19:47*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**12000**		250	150	ug/L		05/06/21 07:40	05/06/21 12:50	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*107*		*28 - 140*	*05/06/21 07:40*	*05/06/21 12:50*	*50*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0097	ug/L		05/05/21 19:45	05/06/21 10:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*110*		*46 - 136*	*05/05/21 19:45*	*05/06/21 10:32*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*108*		*46 - 136*	*05/05/21 19:45*	*05/06/21 10:32*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND	^c	5000	1500	ug/L			05/05/21 11:01	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**45000**		500	96	ug/L		05/05/21 01:31	05/05/21 15:20	1
Iron	**49000**		200	40	ug/L		05/05/21 01:31	05/05/21 15:20	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/05/21 21:39	05/06/21 11:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**250000**		8000	8000	ug/L			05/05/21 05:08	1
Total Kjeldahl Nitrogen	ND		50000	25000	ug/L		05/04/21 07:20	05/12/21 11:20	50
Total Carbon	**75000**		5000	2500	ug/L			05/06/21 02:49	5
Total Organic Carbon	**7400**		1000	500	ug/L			05/07/21 08:17	1
Total Inorganic Carbon	**68000**		2000	600	ug/L			05/10/21 15:13	1

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37993-1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-37993-1	S-384_20210429	87	88	104	100
410-37993-2	S-388D_20210429	87	94	106	100
410-37993-3	DUP-4_20210429	87	94	104	99
410-37993-4	S-306_20210429	87	92	104	98
410-37993-5	A-140_20210429	96	103	93	103
410-37993-6	A-134_20210429	81	96	102	102
410-37993-7	A-19D_20210429	90	104	91	104
410-37993-8	S-427_20210429	92	103	92	104
410-37993-9	B-169_20210429	93	105	95	110
410-37993-10	B-170_20210429	84	102	104	101
410-37993-11	S-399_20210429	95	107	97	102
410-37993-12	S-398_20210429	95	104	93	107
410-37993-13	TB_20210430	97	106	93	105
410-37993-14	A-21D_20210429	98	107	99	101
LCS 410-122605/4	Lab Control Sample	87	92	103	101
LCS 410-122612/5	Lab Control Sample	99	106	95	105
LCS 410-122616/5	Lab Control Sample	101	108	96	106
LCS 410-123230/4	Lab Control Sample	86	93	102	99
LCSD 410-122605/5	Lab Control Sample Dup	87	93	101	102
LCSD 410-122612/6	Lab Control Sample Dup	98	106	92	105
LCSD 410-122616/6	Lab Control Sample Dup	103	109	98	106
LCSD 410-123230/5	Lab Control Sample Dup	86	95	101	100
MB 410-122605/6	Method Blank	86	91	102	101
MB 410-122612/9	Method Blank	98	103	97	105
MB 410-122616/9	Method Blank	98	104	101	105
MB 410-123230/6	Method Blank	85	94	103	100

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(44-102)	(23-128)	(31-113)
410-37993-1	S-384_20210429	63	68	70
410-37993-2	S-388D_20210429	58	62	73
410-37993-3	DUP-4_20210429	65	71	77
410-37993-4	S-306_20210429	58	63	85
410-37993-5	A-140_20210429	63	70	87
410-37993-6	A-134_20210429	73	75	90
410-37993-7	A-19D_20210429	71	73	70
410-37993-8	S-427_20210429	71	71	76
410-37993-9	B-169_20210429	70	72	66
410-37993-10	B-170_20210429	74	74	78
410-37993-11	S-399_20210429	81	82	82

Surrogate Summary

Client: Stantec Consulting Corp. Job ID: 410-37993-1
Project/Site: Former PES Annual GWS

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(44-102)	(23-128)	(31-113)
410-37993-12	S-398_20210429	74	75	83
410-37993-14	A-21D_20210429	77	55	69
LCS 410-123089/2-A	Lab Control Sample	80	80	89
LCS 410-123094/2-A	Lab Control Sample	82	83	99
LCS 410-123376/2-A	Lab Control Sample	76	81	96
LCSD 410-123089/3-A	Lab Control Sample Dup	74	73	84
LCSD 410-123376/3-A	Lab Control Sample Dup	69	73	85
MB 410-123089/1-A	Method Blank	73	74	91
MB 410-123094/1-A	Method Blank	77	80	101
MB 410-123376/1-A	Method Blank	83	83	99

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		Propene1
Lab Sample ID	Client Sample ID	(28-140)
410-37993-1	S-384_20210429	84
410-37993-1 - DL	S-384_20210429	104
410-37993-2	S-388D_20210429	84
410-37993-3	DUP-4_20210429	77
410-37993-4	S-306_20210429	81
410-37993-4 - DL	S-306_20210429	106
410-37993-5	A-140_20210429	83
410-37993-5 - DL	A-140_20210429	104
410-37993-6	A-134_20210429	77
410-37993-6 - DL	A-134_20210429	97
410-37993-7	A-19D_20210429	85
410-37993-7 - DL	A-19D_20210429	90
410-37993-8	S-427_20210429	84
410-37993-9	B-169_20210429	88
410-37993-10	B-170_20210429	89
410-37993-10 - DL	B-170_20210429	104
410-37993-11	S-399_20210429	89
410-37993-11 - DL	S-399_20210429	93
410-37993-12	S-398_20210429	85
410-37993-14	A-21D_20210429	83
410-37993-14 - DL	A-21D_20210429	107
LCS 410-122112/2-A	Lab Control Sample	97
LCS 410-122572/2-A	Lab Control Sample	102
LCS 410-122664/2-A	Lab Control Sample	96
LCSD 410-122112/3-A	Lab Control Sample Dup	98
LCSD 410-122572/3-A	Lab Control Sample Dup	101
MB 410-122112/1-A	Method Blank	92
MB 410-122572/1-A	Method Blank	105
MB 410-122664/1-A	Method Blank	104

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37993-1

Surrogate Legend

Propene = Propene

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)											
		1122TCA1	1122TCA2										
Lab Sample ID	Client Sample ID	(46-136)	(46-136)										
410-37993-1	S-384_20210429	106	105										
410-37993-1 MS	S-384_20210429	95	87										
410-37993-2	S-388D_20210429	103	101										
410-37993-2 DU	S-388D_20210429	104	101										
410-37993-3	DUP-4_20210429	99	96										
410-37993-4	S-306_20210429	110	104										
410-37993-5	A-140_20210429	101	96										
410-37993-6	A-134_20210429	110	100										
410-37993-7	A-19D_20210429	101	104										
410-37993-8	S-427_20210429	100	99										
410-37993-9	B-169_20210429	94	95										
410-37993-10	B-170_20210429	99	108										
410-37993-11	S-399_20210429	107	102										
410-37993-12	S-398_20210429	108	105										
410-37993-14	A-21D_20210429	110	108										
LCS 410-122367/2-A	Lab Control Sample	93	95										
LCS 410-122942/2-A	Lab Control Sample	94	97										
LCSD 410-122367/3-A	Lab Control Sample Dup	96	94										
LCSD 410-122942/3-A	Lab Control Sample Dup	98	107										
MB 410-122367/1-A	Method Blank	109	102										
MB 410-122942/1-A	Method Blank	93	91										

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-122605/6
Matrix: Water
Analysis Batch: 122605

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/05/21 10:57	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/05/21 10:57	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/05/21 10:57	1
Benzene	ND		1.0	0.20	ug/L			05/05/21 10:57	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/05/21 10:57	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/05/21 10:57	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/05/21 10:57	1
t-Butyl alcohol	ND		50	12	ug/L			05/05/21 10:57	1
Toluene	ND		1.0	0.20	ug/L			05/05/21 10:57	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/05/21 10:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*80 - 120*		*05/05/21 10:57*	*1*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*05/05/21 10:57*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*05/05/21 10:57*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/05/21 10:57*	*1*

Lab Sample ID: LCS 410-122605/4
Matrix: Water
Analysis Batch: 122605

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2,4-Trimethylbenzene			20.0	19.1		ug/L		95	75 - 120		
1,2-Dichloroethane			20.0	16.6		ug/L		83	73 - 124		
1,3,5-Trimethylbenzene			20.0	19.2		ug/L		96	75 - 120		
Benzene			20.0	20.0		ug/L		100	80 - 120		
Ethylbenzene			20.0	19.2		ug/L		96	80 - 120		
Isopropylbenzene			20.0	19.8		ug/L		99	80 - 120		
Methyl tert-butyl ether			20.0	16.7		ug/L		84	69 - 122		
t-Butyl alcohol			200	201		ug/L		100	60 - 130		
Toluene			20.0	20.3		ug/L		101	80 - 120		
Xylenes, Total			60.0	59.6		ug/L		99	80 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*87*		*80 - 120*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Lab Sample ID: LCSD 410-122605/5
Matrix: Water
Analysis Batch: 122605

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene			20.0	19.5		ug/L		97	75 - 120	2	30
1,2-Dichloroethane			20.0	17.0		ug/L		85	73 - 124	2	30
1,3,5-Trimethylbenzene			20.0	19.4		ug/L		97	75 - 120	1	30
Benzene			20.0	20.5		ug/L		102	80 - 120	2	30

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-122605/5
Matrix: Water
Analysis Batch: 122605

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene			20.0	19.6		ug/L		98	80 - 120	2	30
Isopropylbenzene			20.0	20.2		ug/L		101	80 - 120	2	30
Methyl tert-butyl ether			20.0	16.8		ug/L		84	69 - 122	1	30
t-Butyl alcohol			200	204		ug/L		102	60 - 130	2	30
Toluene			20.0	20.7		ug/L		103	80 - 120	2	30
Xylenes, Total			60.0	61.3		ug/L		102	80 - 120	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*87*		*80 - 120*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*
Dibromofluoromethane (Surr)	*101*		*80 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

Lab Sample ID: MB 410-122612/9
Matrix: Water
Analysis Batch: 122612

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/05/21 12:10	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/05/21 12:10	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/05/21 12:10	1
Benzene	ND		1.0	0.20	ug/L			05/05/21 12:10	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/05/21 12:10	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/05/21 12:10	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/05/21 12:10	1
t-Butyl alcohol	ND		50	12	ug/L			05/05/21 12:10	1
Toluene	ND		1.0	0.20	ug/L			05/05/21 12:10	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/05/21 12:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 120*		*05/05/21 12:10*	*1*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*05/05/21 12:10*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*05/05/21 12:10*	*1*
Toluene-d8 (Surr)	*105*		*80 - 120*		*05/05/21 12:10*	*1*

Lab Sample ID: LCS 410-122612/5
Matrix: Water
Analysis Batch: 122612

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene			20.0	19.1		ug/L		95	75 - 120
1,2-Dichloroethane			20.0	17.1		ug/L		85	73 - 124
1,3,5-Trimethylbenzene			20.0	19.0		ug/L		95	75 - 120
Benzene			20.0	20.2		ug/L		101	80 - 120
Ethylbenzene			20.0	19.9		ug/L		99	80 - 120
Isopropylbenzene			20.0	18.2		ug/L		91	80 - 120
Methyl tert-butyl ether			20.0	18.5		ug/L		93	69 - 122
t-Butyl alcohol			200	193		ug/L		97	60 - 130

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-122612/5
Matrix: Water
Analysis Batch: 122612

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Toluene			20.0	20.4		ug/L		102	80 - 120		
Xylenes, Total			60.0	55.0		ug/L		92	80 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*80 - 120*
Toluene-d8 (Surr)	*105*		*80 - 120*

Lab Sample ID: LCSD 410-122612/6
Matrix: Water
Analysis Batch: 122612

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene			20.0	17.8		ug/L		89	75 - 120	7	30
1,2-Dichloroethane			20.0	15.9		ug/L		79	73 - 124	8	30
1,3,5-Trimethylbenzene			20.0	17.3		ug/L		87	75 - 120	9	30
Benzene			20.0	18.8		ug/L		94	80 - 120	7	30
Ethylbenzene			20.0	18.5		ug/L		92	80 - 120	7	30
Isopropylbenzene			20.0	16.6		ug/L		83	80 - 120	9	30
Methyl tert-butyl ether			20.0	17.4		ug/L		87	69 - 122	6	30
t-Butyl alcohol			200	175		ug/L		88	60 - 130	10	30
Toluene			20.0	18.6		ug/L		93	80 - 120	9	30
Xylenes, Total			60.0	51.2		ug/L		85	80 - 120	7	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 120*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*
Dibromofluoromethane (Surr)	*92*		*80 - 120*
Toluene-d8 (Surr)	*105*		*80 - 120*

Lab Sample ID: MB 410-122616/9
Matrix: Water
Analysis Batch: 122616

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/05/21 12:21	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/05/21 12:21	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/05/21 12:21	1
Benzene	ND		1.0	0.20	ug/L			05/05/21 12:21	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/05/21 12:21	1
Ethylene Dibromide	ND		1.0	0.20	ug/L			05/05/21 12:21	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/05/21 12:21	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/05/21 12:21	1
Naphthalene	ND		5.0	1.0	ug/L			05/05/21 12:21	1
t-Butyl alcohol	ND		50	12	ug/L			05/05/21 12:21	1
Toluene	ND		1.0	0.20	ug/L			05/05/21 12:21	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/05/21 12:21	1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-122616/9
Matrix: Water
Analysis Batch: 122616

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		80 - 120		05/05/21 12:21	1
4-Bromofluorobenzene (Surr)	104		80 - 120		05/05/21 12:21	1
Dibromofluoromethane (Surr)	101		80 - 120		05/05/21 12:21	1
Toluene-d8 (Surr)	105		80 - 120		05/05/21 12:21	1

Lab Sample ID: LCS 410-122616/5
Matrix: Water
Analysis Batch: 122616

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2,4-Trimethylbenzene			20.0	19.8		ug/L		99	75 - 120		
1,2-Dichloroethane			20.0	17.4		ug/L		87	73 - 124		
1,3,5-Trimethylbenzene			20.0	19.7		ug/L		99	75 - 120		
Benzene			20.0	20.6		ug/L		103	80 - 120		
Ethylbenzene			20.0	20.7		ug/L		103	80 - 120		
Ethylene Dibromide			20.0	19.4		ug/L		97	77 - 120		
Isopropylbenzene			20.0	19.2		ug/L		96	80 - 120		
Methyl tert-butyl ether			20.0	18.7		ug/L		93	69 - 122		
Naphthalene			20.0	15.2		ug/L		76	53 - 124		
t-Butyl alcohol			200	192		ug/L		96	60 - 130		
Toluene			20.0	20.7		ug/L		104	80 - 120		
Xylenes, Total			60.0	58.5		ug/L		98	80 - 120		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		80 - 120
4-Bromofluorobenzene (Surr)	108		80 - 120
Dibromofluoromethane (Surr)	96		80 - 120
Toluene-d8 (Surr)	106		80 - 120

Lab Sample ID: LCSD 410-122616/6
Matrix: Water
Analysis Batch: 122616

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene			20.0	17.1		ug/L		86	75 - 120	15	30
1,2-Dichloroethane			20.0	16.1		ug/L		80	73 - 124	8	30
1,3,5-Trimethylbenzene			20.0	17.2		ug/L		86	75 - 120	14	30
Benzene			20.0	18.6		ug/L		93	80 - 120	10	30
Ethylbenzene			20.0	18.1		ug/L		90	80 - 120	14	30
Ethylene Dibromide			20.0	17.0		ug/L		85	77 - 120	13	30
Isopropylbenzene			20.0	16.9		ug/L		84	80 - 120	13	30
Methyl tert-butyl ether			20.0	17.0		ug/L		85	69 - 122	10	30
Naphthalene			20.0	13.9		ug/L		69	53 - 124	9	30
t-Butyl alcohol			200	170		ug/L		85	60 - 130	12	30
Toluene			20.0	18.3		ug/L		92	80 - 120	12	30
Xylenes, Total			60.0	51.8		ug/L		86	80 - 120	12	30

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-122616/6
Matrix: Water
Analysis Batch: 122616

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*103*		*80 - 120*
4-Bromofluorobenzene (Surr)	*109*		*80 - 120*
Dibromofluoromethane (Surr)	*98*		*80 - 120*
Toluene-d8 (Surr)	*106*		*80 - 120*

Lab Sample ID: MB 410-123230/6
Matrix: Water
Analysis Batch: 123230

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/06/21 16:38	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/06/21 16:38	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/06/21 16:38	1
Benzene	ND		1.0	0.20	ug/L			05/06/21 16:38	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/06/21 16:38	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/06/21 16:38	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/06/21 16:38	1
t-Butyl alcohol	ND		50	12	ug/L			05/06/21 16:38	1
Toluene	ND		1.0	0.20	ug/L			05/06/21 16:38	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/06/21 16:38	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*85*		*80 - 120*		*05/06/21 16:38*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*05/06/21 16:38*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*05/06/21 16:38*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/06/21 16:38*	*1*

Lab Sample ID: LCS 410-123230/4
Matrix: Water
Analysis Batch: 123230

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	20.0	17.1		ug/L		86	75 - 120
1,2-Dichloroethane	20.0	15.4		ug/L		77	73 - 124
1,3,5-Trimethylbenzene	20.0	17.2		ug/L		86	75 - 120
Benzene	20.0	18.3		ug/L		91	80 - 120
Ethylbenzene	20.0	17.8		ug/L		89	80 - 120
Isopropylbenzene	20.0	17.9		ug/L		90	80 - 120
Methyl tert-butyl ether	20.0	15.9		ug/L		80	69 - 122
t-Butyl alcohol	200	186		ug/L		93	60 - 130
Toluene	20.0	18.2		ug/L		91	80 - 120
Xylenes, Total	60.0	54.7		ug/L		91	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*86*		*80 - 120*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*
Dibromofluoromethane (Surr)	*102*		*80 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: LCSD 410-123230/5
Matrix: Water
Analysis Batch: 123230

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene			20.0	16.3		ug/L		82	75 - 120	5	30
1,2-Dichloroethane			20.0	15.3		ug/L		76	73 - 124	1	30
1,3,5-Trimethylbenzene			20.0	16.1		ug/L		81	75 - 120	6	30
Benzene			20.0	18.2		ug/L		91	80 - 120	1	30
Ethylbenzene			20.0	17.4		ug/L		87	80 - 120	2	30
Isopropylbenzene			20.0	17.8		ug/L		89	80 - 120	1	30
Methyl tert-butyl ether			20.0	15.7		ug/L		78	69 - 122	2	30
t-Butyl alcohol			200	187		ug/L		93	60 - 130	1	30
Toluene			20.0	18.0		ug/L		90	80 - 120	1	30
Xylenes, Total			60.0	53.7		ug/L		90	80 - 120	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*86*		*80 - 120*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*
Dibromofluoromethane (Surr)	*101*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-123089/1-A
Matrix: Water
Analysis Batch: 124315

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 123089

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/06/21 10:15	05/10/21 12:21	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/06/21 10:15	05/10/21 12:21	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/06/21 10:15	05/10/21 12:21	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/06/21 10:15	05/10/21 12:21	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/06/21 10:15	05/10/21 12:21	1
Chrysene	ND		0.50	0.10	ug/L		05/06/21 10:15	05/10/21 12:21	1
Fluorene	ND		0.50	0.12	ug/L		05/06/21 10:15	05/10/21 12:21	1
Naphthalene	ND		0.50	0.10	ug/L		05/06/21 10:15	05/10/21 12:21	1
Phenanthrene	ND		0.50	0.11	ug/L		05/06/21 10:15	05/10/21 12:21	1
Pyrene	ND		0.50	0.10	ug/L		05/06/21 10:15	05/10/21 12:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*73*		*44 - 102*	*05/06/21 10:15*	*05/10/21 12:21*	*1*
Nitrobenzene-d5 (Surr)	*74*		*23 - 128*	*05/06/21 10:15*	*05/10/21 12:21*	*1*
p-Terphenyl-d14 (Surr)	*91*		*31 - 113*	*05/06/21 10:15*	*05/10/21 12:21*	*1*

Lab Sample ID: LCS 410-123089/2-A
Matrix: Water
Analysis Batch: 124315

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 123089

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Anthracene			50.0	49.6		ug/L		99	61 - 117		
Benzo[a]anthracene			50.0	53.4		ug/L		107	61 - 126		
Benzo[a]pyrene			50.0	56.4		ug/L		113	60 - 116		

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-123089/2-A
Matrix: Water
Analysis Batch: 124315

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 123089

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzo[b]fluoranthene			50.0	48.2		ug/L		96	61 - 119		
Benzo[g,h,i]perylene			50.0	45.2		ug/L		90	54 - 120		
Chrysene			50.0	54.0		ug/L		108	65 - 121		
Fluorene			50.0	48.6		ug/L		97	56 - 115		
Naphthalene			50.0	43.5		ug/L		87	51 - 102		
Phenanthrene			50.0	49.2		ug/L		98	65 - 113		
Pyrene			50.0	49.9		ug/L		100	65 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*80*		*44 - 102*
Nitrobenzene-d5 (Surr)	*80*		*23 - 128*
p-Terphenyl-d14 (Surr)	*89*		*31 - 113*

Lab Sample ID: LCSD 410-123089/3-A
Matrix: Water
Analysis Batch: 124315

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 123089

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Anthracene			50.0	45.9		ug/L		92	61 - 117	8	30
Benzo[a]anthracene			50.0	51.5		ug/L		103	61 - 126	4	30
Benzo[a]pyrene			50.0	52.7		ug/L		105	60 - 116	7	30
Benzo[b]fluoranthene			50.0	44.0		ug/L		88	61 - 119	9	30
Benzo[g,h,i]perylene			50.0	39.6		ug/L		79	54 - 120	13	30
Chrysene			50.0	51.4		ug/L		103	65 - 121	5	30
Fluorene			50.0	44.8		ug/L		90	56 - 115	8	30
Naphthalene			50.0	40.2		ug/L		80	51 - 102	8	30
Phenanthrene			50.0	45.2		ug/L		90	65 - 113	8	30
Pyrene			50.0	47.0		ug/L		94	65 - 115	6	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*74*		*44 - 102*
Nitrobenzene-d5 (Surr)	*73*		*23 - 128*
p-Terphenyl-d14 (Surr)	*84*		*31 - 113*

Lab Sample ID: MB 410-123094/1-A
Matrix: Water
Analysis Batch: 124307

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 123094

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/06/21 10:15	05/10/21 12:26	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/06/21 10:15	05/10/21 12:26	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/06/21 10:15	05/10/21 12:26	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/06/21 10:15	05/10/21 12:26	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/06/21 10:15	05/10/21 12:26	1
Chrysene	ND		0.50	0.10	ug/L		05/06/21 10:15	05/10/21 12:26	1
Fluorene	ND		0.50	0.12	ug/L		05/06/21 10:15	05/10/21 12:26	1
Naphthalene	ND		0.50	0.10	ug/L		05/06/21 10:15	05/10/21 12:26	1
Phenanthrene	ND		0.50	0.11	ug/L		05/06/21 10:15	05/10/21 12:26	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-123094/1-A
Matrix: Water
Analysis Batch: 124307

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 123094

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	ND		0.50	0.10	ug/L		05/06/21 10:15	05/10/21 12:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*77*		*44 - 102*	*05/06/21 10:15*	*05/10/21 12:26*	*1*
Nitrobenzene-d5 (Surr)	*80*		*23 - 128*	*05/06/21 10:15*	*05/10/21 12:26*	*1*
p-Terphenyl-d14 (Surr)	*101*		*31 - 113*	*05/06/21 10:15*	*05/10/21 12:26*	*1*

Lab Sample ID: LCS 410-123094/2-A
Matrix: Water
Analysis Batch: 124307

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 123094

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.0	50.0		ug/L		100	61 - 117
Benzo[a]anthracene	50.0	54.5		ug/L		109	61 - 126
Benzo[a]pyrene	50.0	57.4		ug/L		115	60 - 116
Benzo[b]fluoranthene	50.0	52.3		ug/L		105	61 - 119
Benzo[g,h,i]perylene	50.0	37.3		ug/L		75	54 - 120
Chrysene	50.0	54.9		ug/L		110	65 - 121
Fluorene	50.0	49.1		ug/L		98	56 - 115
Naphthalene	50.0	43.4		ug/L		87	51 - 102
Phenanthrene	50.0	49.1		ug/L		98	65 - 113
Pyrene	50.0	51.5		ug/L		103	65 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*82*		*44 - 102*
Nitrobenzene-d5 (Surr)	*83*		*23 - 128*
p-Terphenyl-d14 (Surr)	*99*		*31 - 113*

Lab Sample ID: MB 410-123376/1-A
Matrix: Water
Analysis Batch: 123874

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 123376

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/06/21 15:56	05/07/21 17:13	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/06/21 15:56	05/07/21 17:13	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/06/21 15:56	05/07/21 17:13	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/06/21 15:56	05/07/21 17:13	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/06/21 15:56	05/07/21 17:13	1
Chrysene	ND		0.50	0.10	ug/L		05/06/21 15:56	05/07/21 17:13	1
Fluorene	ND		0.50	0.12	ug/L		05/06/21 15:56	05/07/21 17:13	1
Naphthalene	ND		0.50	0.10	ug/L		05/06/21 15:56	05/07/21 17:13	1
Phenanthrene	ND		0.50	0.11	ug/L		05/06/21 15:56	05/07/21 17:13	1
Pyrene	ND		0.50	0.10	ug/L		05/06/21 15:56	05/07/21 17:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*83*		*44 - 102*	*05/06/21 15:56*	*05/07/21 17:13*	*1*
Nitrobenzene-d5 (Surr)	*83*		*23 - 128*	*05/06/21 15:56*	*05/07/21 17:13*	*1*
p-Terphenyl-d14 (Surr)	*99*		*31 - 113*	*05/06/21 15:56*	*05/07/21 17:13*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: LCS 410-123376/2-A
Matrix: Water
Analysis Batch: 123874

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 123376

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Anthracene			50.0	49.2		ug/L		98	61 - 117		
Benzo[a]anthracene			50.0	54.7		ug/L		109	61 - 126		
Benzo[a]pyrene			50.0	56.1		ug/L		112	60 - 116		
Benzo[b]fluoranthene			50.0	48.5		ug/L		97	61 - 119		
Benzo[g,h,i]perylene			50.0	51.8		ug/L		104	54 - 120		
Chrysene			50.0	54.9		ug/L		110	65 - 121		
Fluorene			50.0	48.4		ug/L		97	56 - 115		
Naphthalene			50.0	41.0		ug/L		82	51 - 102		
Phenanthrene			50.0	48.5		ug/L		97	65 - 113		
Pyrene			50.0	50.6		ug/L		101	65 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*76*		*44 - 102*
Nitrobenzene-d5 (Surr)	*81*		*23 - 128*
p-Terphenyl-d14 (Surr)	*96*		*31 - 113*

Lab Sample ID: LCSD 410-123376/3-A
Matrix: Water
Analysis Batch: 123874

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 123376

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Anthracene			50.0	43.4		ug/L		87	61 - 117	12	30
Benzo[a]anthracene			50.0	48.4		ug/L		97	61 - 126	12	30
Benzo[a]pyrene			50.0	49.9		ug/L		100	60 - 116	12	30
Benzo[b]fluoranthene			50.0	43.1		ug/L		86	61 - 119	12	30
Benzo[g,h,i]perylene			50.0	45.4		ug/L		91	54 - 120	13	30
Chrysene			50.0	48.5		ug/L		97	65 - 121	12	30
Fluorene			50.0	43.5		ug/L		87	56 - 115	11	30
Naphthalene			50.0	37.3		ug/L		75	51 - 102	9	30
Phenanthrene			50.0	43.0		ug/L		86	65 - 113	12	30
Pyrene			50.0	44.3		ug/L		89	65 - 115	13	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*69*		*44 - 102*
Nitrobenzene-d5 (Surr)	*73*		*23 - 128*
p-Terphenyl-d14 (Surr)	*85*		*31 - 113*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-122112/1-A
Matrix: Water
Analysis Batch: 122090

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 122112

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/04/21 12:37	05/04/21 14:28	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/04/21 12:37	05/04/21 14:28	1
Methane (1C)	ND		5.0	3.0	ug/L		05/04/21 12:37	05/04/21 14:28	1

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: MB 410-122112/1-A
Matrix: Water
Analysis Batch: 122090

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 122112

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Propene (1C)	92		28 - 140	05/04/21 12:37	05/04/21 14:28	1

Lab Sample ID: LCS 410-122112/2-A
Matrix: Water
Analysis Batch: 122090

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 122112

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	59.6		ug/L		100	85 - 115		
Ethene (1C)			60.4	59.4		ug/L		98	83 - 115		
Methane (1C)			59.4	56.4		ug/L		95	85 - 115		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Propene (1C)	97		28 - 140

Lab Sample ID: LCSD 410-122112/3-A
Matrix: Water
Analysis Batch: 122090

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 122112

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	58.3		ug/L		98	85 - 115	2	20
Ethene (1C)			60.4	58.1		ug/L		96	83 - 115	2	20
Methane (1C)			59.4	55.2		ug/L		93	85 - 115	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Propene (1C)	98		28 - 140

Lab Sample ID: MB 410-122572/1-A
Matrix: Water
Analysis Batch: 123090

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 122572

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/06/21 07:40	05/06/21 07:59	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/06/21 07:40	05/06/21 07:59	1
Methane (1C)	ND		5.0	3.0	ug/L		05/06/21 07:40	05/06/21 07:59	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Propene (1C)	105		28 - 140	05/06/21 07:40	05/06/21 07:59	1

Lab Sample ID: LCS 410-122572/2-A
Matrix: Water
Analysis Batch: 123090

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 122572

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	61.8		ug/L		104	85 - 115		
Ethene (1C)			60.4	62.2		ug/L		103	83 - 115		
Methane (1C)			59.4	62.8		ug/L		106	85 - 115		

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCS 410-122572/2-A
Matrix: Water
Analysis Batch: 123090

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 122572

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Propene (1C)	102		28 - 140

Lab Sample ID: LCSD 410-122572/3-A
Matrix: Water
Analysis Batch: 123090

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 122572

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	61.3		ug/L		103	85 - 115	1	20
Ethene (1C)			60.4	61.8		ug/L		102	83 - 115	1	20
Methane (1C)			59.4	63.1		ug/L		106	85 - 115	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Propene (1C)	101		28 - 140

Lab Sample ID: MB 410-122664/1-A
Matrix: Water
Analysis Batch: 122673

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 122664

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/05/21 08:50	05/05/21 11:33	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/05/21 08:50	05/05/21 11:33	1
Methane (1C)	ND		5.0	3.0	ug/L		05/05/21 08:50	05/05/21 11:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Propene (1C)	104		28 - 140	05/05/21 08:50	05/05/21 11:33	1

Lab Sample ID: LCS 410-122664/2-A
Matrix: Water
Analysis Batch: 122673

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 122664

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethane (1C)			59.4	58.0		ug/L		98	85 - 115
Ethene (1C)			60.4	58.4		ug/L		97	83 - 115
Methane (1C)			59.4	54.6		ug/L		92	85 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Propene (1C)	96		28 - 140

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-122367/1-A
Matrix: Water
Analysis Batch: 122532

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 122367

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		05/04/21 18:00	05/05/21 07:22	1

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: MB 410-122367/1-A
Matrix: Water
Analysis Batch: 122532

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 122367

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane (Surr) (1C)	109		46 - 136	05/04/21 18:00	05/05/21 07:22	1
1,1,2,2-Tetrachloroethane (Surr) (2C)	102		46 - 136	05/04/21 18:00	05/05/21 07:22	1

Lab Sample ID: LCS 410-122367/2-A
Matrix: Water
Analysis Batch: 122532

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 122367

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.167		ug/L		130	60 - 140		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,1,2,2-Tetrachloroethane (Surr) (1C)	93		46 - 136
1,1,2,2-Tetrachloroethane (Surr) (2C)	95		46 - 136

Lab Sample ID: LCSD 410-122367/3-A
Matrix: Water
Analysis Batch: 122532

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 122367

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.172		ug/L		134	60 - 140	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,1,2,2-Tetrachloroethane (Surr) (1C)	96		46 - 136
1,1,2,2-Tetrachloroethane (Surr) (2C)	94		46 - 136

Lab Sample ID: 410-37993-1 MS
Matrix: Water
Analysis Batch: 122532

Client Sample ID: S-384_20210429
Prep Type: Total/NA
Prep Batch: 122367

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)	ND	FH	0.124	0.197	FH	ug/L		159	60 - 140		

Surrogate	MS %Recovery	MS Qualifier	Limits
1,1,2,2-Tetrachloroethane (Surr) (1C)	95		46 - 136
1,1,2,2-Tetrachloroethane (Surr) (2C)	87		46 - 136

Lab Sample ID: 410-37993-2 DU
Matrix: Water
Analysis Batch: 122532

Client Sample ID: S-388D_20210429
Prep Type: Total/NA
Prep Batch: 122367

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Ethylene Dibromide (1C)	ND			ND		ug/L				NC	30

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: 410-37993-2 DU
Matrix: Water
Analysis Batch: 122532

Client Sample ID: S-388D_20210429
Prep Type: Total/NA
Prep Batch: 122367

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*104*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*101*		*46 - 136*

Lab Sample ID: MB 410-122942/1-A
Matrix: Water
Analysis Batch: 123056

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 122942

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		05/05/21 19:45	05/06/21 06:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*93*		*46 - 136*	*05/05/21 19:45*	*05/06/21 06:52*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*91*		*46 - 136*	*05/05/21 19:45*	*05/06/21 06:52*	*1*

Lab Sample ID: LCS 410-122942/2-A
Matrix: Water
Analysis Batch: 123578

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 122942

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.123		ug/L		96	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*94*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*97*		*46 - 136*

Lab Sample ID: LCSD 410-122942/3-A
Matrix: Water
Analysis Batch: 123578

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 122942

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.141		ug/L		110	60 - 140	14	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*98*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*107*		*46 - 136*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 410-122408/4
Matrix: Water
Analysis Batch: 122408

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1000	300	ug/L			05/04/21 22:11	1

Lab Sample ID: LCS 410-122408/3
Matrix: Water
Analysis Batch: 122408

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	7500	7660		ug/L		102	90 - 110

Lab Sample ID: MB 410-122541/4
Matrix: Water
Analysis Batch: 122541

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1000	300	ug/L			05/05/21 04:44	1

Lab Sample ID: LCS 410-122541/3
Matrix: Water
Analysis Batch: 122541

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	7500	6830		ug/L		91	90 - 110

Lab Sample ID: 410-37993-4 MS
Matrix: Water
Analysis Batch: 122541

Client Sample ID: S-306_20210429
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	ND		25000	26100		ug/L		104	90 - 110

Lab Sample ID: 410-37993-12 MS
Matrix: Water
Analysis Batch: 122541

Client Sample ID: S-398_20210429
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	270000		250000	522000		ug/L		102	90 - 110

Lab Sample ID: 410-37993-4 DU
Matrix: Water
Analysis Batch: 122541

Client Sample ID: S-306_20210429
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfate	ND		ND		ug/L		NC	15

Lab Sample ID: 410-37993-12 DU
Matrix: Water
Analysis Batch: 122541

Client Sample ID: S-398_20210429
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfate	270000		275000		ug/L		3	15

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-122491/1-A
Matrix: Water
Analysis Batch: 122852

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 122491

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		500	96	ug/L		05/05/21 01:31	05/05/21 13:52	1
Iron	ND		200	40	ug/L		05/05/21 01:31	05/05/21 13:52	1

Lab Sample ID: LCS 410-122491/2-A
Matrix: Water
Analysis Batch: 122852

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 122491

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	400	435	J	ug/L		109	80 - 120
Iron	400	414		ug/L		103	80 - 120

Lab Sample ID: MB 410-122492/1-A
Matrix: Water
Analysis Batch: 122861

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 122492

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		500	96	ug/L		05/05/21 01:35	05/05/21 13:54	1
Iron	ND		200	40	ug/L		05/05/21 01:35	05/05/21 13:54	1

Lab Sample ID: LCS 410-122492/2-A
Matrix: Water
Analysis Batch: 122861

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 122492

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	400	383	J	ug/L		96	80 - 120
Iron	400	407		ug/L		102	80 - 120

Lab Sample ID: 410-37993-6 MS
Matrix: Water
Analysis Batch: 122861

Client Sample ID: A-134_20210429
Prep Type: Total Recoverable
Prep Batch: 122492

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	67000		400	68700	4	ug/L		462	75 - 125
Iron	8700		400	9240	4	ug/L		135	75 - 125

Lab Sample ID: 410-37993-6 MSD
Matrix: Water
Analysis Batch: 122861

Client Sample ID: A-134_20210429
Prep Type: Total Recoverable
Prep Batch: 122492

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	67000		400	67300	4	ug/L		127	75 - 125	2	20
Iron	8700		400	9170	4	ug/L		117	75 - 125	1	20

Lab Sample ID: 410-37993-6 DU
Matrix: Water
Analysis Batch: 122861

Client Sample ID: A-134_20210429
Prep Type: Total Recoverable
Prep Batch: 122492

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Calcium	67000		67900		ug/L		2	20
Iron	8700		9220		ug/L		6	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 410-122979/1-A
Matrix: Water
Analysis Batch: 123312

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 122979

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/05/21 21:39	05/06/21 11:20	1

Lab Sample ID: LCS 410-122979/2-A
Matrix: Water
Analysis Batch: 123312

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 122979

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	30.0	31.1		ug/L		104	90 - 115

Lab Sample ID: 410-37993-14 MS
Matrix: Water
Analysis Batch: 123312

Client Sample ID: A-21D_20210429
Prep Type: Dissolved
Prep Batch: 122979

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	ND		30.0	30.9		ug/L		103	75 - 125

Lab Sample ID: 410-37993-14 MSD
Matrix: Water
Analysis Batch: 123312

Client Sample ID: A-21D_20210429
Prep Type: Dissolved
Prep Batch: 122979

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	ND		30.0	30.9		ug/L		103	75 - 125	0	20

Lab Sample ID: 410-37993-14 DU
Matrix: Water
Analysis Batch: 123312

Client Sample ID: A-21D_20210429
Prep Type: Dissolved
Prep Batch: 122979

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	ND		ND		ug/L		NC	20

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 410-122817/84
Matrix: Water
Analysis Batch: 122817

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8000	8000	ug/L			05/05/21 03:14	1

Lab Sample ID: LCS 410-122817/85
Matrix: Water
Analysis Batch: 122817

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	189000	184000		ug/L		98	82 - 106

Method: 2320B-2011 - Alkalinity, Total (Continued)

Lab Sample ID: 410-37993-1 MS
Matrix: Water
Analysis Batch: 122817

Client Sample ID: S-384_20210429
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Alkalinity as CaCO3 to pH 4.5	190000		189000	343000		ug/L		83	82 - 106		

Lab Sample ID: 410-37993-1 DU
Matrix: Water
Analysis Batch: 122817

Client Sample ID: S-384_20210429
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	190000			189000		ug/L				1	5

Lab Sample ID: 410-37993-2 DU
Matrix: Water
Analysis Batch: 122817

Client Sample ID: S-388D_20210429
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	240000			244000		ug/L				0.2	5

Lab Sample ID: MB 410-123828/33
Matrix: Water
Analysis Batch: 123828

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8000	8000	ug/L			05/06/21 20:42	1

Lab Sample ID: MB 410-123828/43
Matrix: Water
Analysis Batch: 123828

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8000	8000	ug/L			05/06/21 21:46	1

Lab Sample ID: LCS 410-123828/34
Matrix: Water
Analysis Batch: 123828

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Alkalinity as CaCO3 to pH 4.5			189000	183000		ug/L		97	82 - 106		

Lab Sample ID: LCS 410-123828/44
Matrix: Water
Analysis Batch: 123828

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Alkalinity as CaCO3 to pH 4.5			189000	185000		ug/L		98	82 - 106		

Method: 2320B-2011 - Alkalinity, Total (Continued)

Lab Sample ID: 410-37993-8 DU — **Client Sample ID: S-427_20210429**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 123828

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	240000		241000		ug/L		0.3	5

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 410-122117/2-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125533 — **Prep Batch: 122117**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		1000	500	ug/L		05/04/21 07:20	05/12/21 10:49	1

Lab Sample ID: LCS 410-122117/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125533 — **Prep Batch: 122117**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	4000	3940		ug/L		99	90 - 110

Lab Sample ID: 410-37993-8 MS — **Client Sample ID: S-427_20210429**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125533 — **Prep Batch: 122117**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	ND	FH	5000	5530	FH	ug/L		111	90 - 110

Lab Sample ID: 410-37993-9 MS — **Client Sample ID: B-169_20210429**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125533 — **Prep Batch: 122117**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	610	J	5000	5480		ug/L		97	90 - 110

Lab Sample ID: 410-37993-8 DU — **Client Sample ID: S-427_20210429**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125533 — **Prep Batch: 122117**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Kjeldahl Nitrogen	ND	FH	ND		ug/L		NC	20

Lab Sample ID: 410-37993-9 DU — **Client Sample ID: B-169_20210429**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125533 — **Prep Batch: 122117**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Kjeldahl Nitrogen	610	J	689	J	ug/L		12	20

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37993-1

Method: 5310 B-2011 - Carbon, Total and Total Inorganic

Lab Sample ID: MB 410-123209/5
Matrix: Water
Analysis Batch: 123209

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Carbon	ND		1000	500	ug/L			05/05/21 18:43	1

Lab Sample ID: LCS 410-123209/36
Matrix: Water
Analysis Batch: 123209

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Carbon	25000	25900		ug/L		104	91 - 115

Lab Sample ID: LCS 410-123209/4
Matrix: Water
Analysis Batch: 123209

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Carbon	25000	25000		ug/L		100	91 - 115

Lab Sample ID: 410-37993-5 MS
Matrix: Water
Analysis Batch: 123209

Client Sample ID: A-140_20210429
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Carbon	54000		100000	158000		ug/L		104	91 - 115

Lab Sample ID: 410-37993-5 DU
Matrix: Water
Analysis Batch: 123209

Client Sample ID: A-140_20210429
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Carbon	54000		59700		ug/L		10	20

Lab Sample ID: MB 410-123355/4
Matrix: Water
Analysis Batch: 123355

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Carbon	ND		1000	500	ug/L			05/06/21 12:04	1

Method: 5310C-2011 - Total Organic Carbon/Persulfate - Ultrav

Lab Sample ID: MB 410-123867/37
Matrix: Water
Analysis Batch: 123867

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	500	ug/L			05/07/21 02:55	1

Method: 5310C-2011 - Total Organic Carbon/Persulfate - Ultrav (Continued)

Lab Sample ID: LCS 410-123867/36
Matrix: Water
Analysis Batch: 123867

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon			25000	26000		ug/L		104	91 - 113		

Lab Sample ID: 410-37993-9 MS
Matrix: Water
Analysis Batch: 123867

Client Sample ID: B-169_20210429
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon	5600		10000	16000		ug/L		103	91 - 113		

Lab Sample ID: 410-37993-9 DU
Matrix: Water
Analysis Batch: 123867

Client Sample ID: B-169_20210429
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Organic Carbon	5600		5690		ug/L				0.9	3

GC/MS VOA

Analysis Batch: 122605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-1	S-384_20210429	Total/NA	Water	8260C/UST	
410-37993-2	S-388D_20210429	Total/NA	Water	8260C/UST	
410-37993-3	DUP-4_20210429	Total/NA	Water	8260C/UST	
410-37993-4	S-306_20210429	Total/NA	Water	8260C/UST	
MB 410-122605/6	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-122605/4	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-122605/5	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

Analysis Batch: 122612

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-5	A-140_20210429	Total/NA	Water	8260C/UST	
410-37993-7	A-19D_20210429	Total/NA	Water	8260C/UST	
410-37993-8	S-427_20210429	Total/NA	Water	8260C/UST	
410-37993-9	B-169_20210429	Total/NA	Water	8260C/UST	
410-37993-11	S-399_20210429	Total/NA	Water	8260C/UST	
410-37993-12	S-398_20210429	Total/NA	Water	8260C/UST	
MB 410-122612/9	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-122612/5	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-122612/6	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

Analysis Batch: 122616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-13	TB_20210430	Total/NA	Water	8260C/UST	
410-37993-14	A-21D_20210429	Total/NA	Water	8260C/UST	
MB 410-122616/9	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-122616/5	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-122616/6	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

Analysis Batch: 123230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-6	A-134_20210429	Total/NA	Water	8260C/UST	
410-37993-10	B-170_20210429	Total/NA	Water	8260C/UST	
MB 410-123230/6	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-123230/4	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-123230/5	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

GC/MS Semi VOA

Prep Batch: 123089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-12	S-398_20210429	Total/NA	Water	3510C	
410-37993-14	A-21D_20210429	Total/NA	Water	3510C	
MB 410-123089/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-123089/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-123089/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 123094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-1	S-384_20210429	Total/NA	Water	3510C	
410-37993-2	S-388D_20210429	Total/NA	Water	3510C	
410-37993-3	DUP-4_20210429	Total/NA	Water	3510C	

GC/MS Semi VOA (Continued)

Prep Batch: 123094 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-4	S-306_20210429	Total/NA	Water	3510C	
410-37993-5	A-140_20210429	Total/NA	Water	3510C	
MB 410-123094/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-123094/2-A	Lab Control Sample	Total/NA	Water	3510C	

Prep Batch: 123376

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-6	A-134_20210429	Total/NA	Water	3510C	
410-37993-7	A-19D_20210429	Total/NA	Water	3510C	
410-37993-8	S-427_20210429	Total/NA	Water	3510C	
410-37993-9	B-169_20210429	Total/NA	Water	3510C	
410-37993-10	B-170_20210429	Total/NA	Water	3510C	
410-37993-11	S-399_20210429	Total/NA	Water	3510C	
MB 410-123376/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-123376/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-123376/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 123874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-6	A-134_20210429	Total/NA	Water	8270D	123376
410-37993-7	A-19D_20210429	Total/NA	Water	8270D	123376
410-37993-8	S-427_20210429	Total/NA	Water	8270D	123376
410-37993-9	B-169_20210429	Total/NA	Water	8270D	123376
410-37993-10	B-170_20210429	Total/NA	Water	8270D	123376
410-37993-11	S-399_20210429	Total/NA	Water	8270D	123376
MB 410-123376/1-A	Method Blank	Total/NA	Water	8270D	123376
LCS 410-123376/2-A	Lab Control Sample	Total/NA	Water	8270D	123376
LCSD 410-123376/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	123376

Analysis Batch: 124307

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-1	S-384_20210429	Total/NA	Water	8270D	123094
410-37993-2	S-388D_20210429	Total/NA	Water	8270D	123094
410-37993-3	DUP-4_20210429	Total/NA	Water	8270D	123094
410-37993-4	S-306_20210429	Total/NA	Water	8270D	123094
410-37993-5	A-140_20210429	Total/NA	Water	8270D	123094
MB 410-123094/1-A	Method Blank	Total/NA	Water	8270D	123094
LCS 410-123094/2-A	Lab Control Sample	Total/NA	Water	8270D	123094

Analysis Batch: 124315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-123089/1-A	Method Blank	Total/NA	Water	8270D	123089
LCS 410-123089/2-A	Lab Control Sample	Total/NA	Water	8270D	123089
LCSD 410-123089/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	123089

Analysis Batch: 124654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-12	S-398_20210429	Total/NA	Water	8270D	123089
410-37993-14	A-21D_20210429	Total/NA	Water	8270D	123089

GC VOA

Analysis Batch: 122090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-1	S-384_20210429	Total/NA	Water	RSK-175	122112
410-37993-2	S-388D_20210429	Total/NA	Water	RSK-175	122112
410-37993-3	DUP-4_20210429	Total/NA	Water	RSK-175	122112
410-37993-4	S-306_20210429	Total/NA	Water	RSK-175	122112
410-37993-5	A-140_20210429	Total/NA	Water	RSK-175	122112
410-37993-6	A-134_20210429	Total/NA	Water	RSK-175	122112
410-37993-7	A-19D_20210429	Total/NA	Water	RSK-175	122112
410-37993-8	S-427_20210429	Total/NA	Water	RSK-175	122112
410-37993-9	B-169_20210429	Total/NA	Water	RSK-175	122112
410-37993-10	B-170_20210429	Total/NA	Water	RSK-175	122112
410-37993-11	S-399_20210429	Total/NA	Water	RSK-175	122112
410-37993-12	S-398_20210429	Total/NA	Water	RSK-175	122112
410-37993-14	A-21D_20210429	Total/NA	Water	RSK-175	122112
MB 410-122112/1-A	Method Blank	Total/NA	Water	RSK-175	122112
LCS 410-122112/2-A	Lab Control Sample	Total/NA	Water	RSK-175	122112
LCSD 410-122112/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	122112

Prep Batch: 122112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-1	S-384_20210429	Total/NA	Water	RSK-175	
410-37993-2	S-388D_20210429	Total/NA	Water	RSK-175	
410-37993-3	DUP-4_20210429	Total/NA	Water	RSK-175	
410-37993-4	S-306_20210429	Total/NA	Water	RSK-175	
410-37993-5	A-140_20210429	Total/NA	Water	RSK-175	
410-37993-6	A-134_20210429	Total/NA	Water	RSK-175	
410-37993-7	A-19D_20210429	Total/NA	Water	RSK-175	
410-37993-8	S-427_20210429	Total/NA	Water	RSK-175	
410-37993-9	B-169_20210429	Total/NA	Water	RSK-175	
410-37993-10	B-170_20210429	Total/NA	Water	RSK-175	
410-37993-11	S-399_20210429	Total/NA	Water	RSK-175	
410-37993-12	S-398_20210429	Total/NA	Water	RSK-175	
410-37993-14	A-21D_20210429	Total/NA	Water	RSK-175	
MB 410-122112/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-122112/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-122112/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Prep Batch: 122572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-1 - DL	S-384_20210429	Total/NA	Water	RSK-175	
410-37993-4 - DL	S-306_20210429	Total/NA	Water	RSK-175	
410-37993-5 - DL	A-140_20210429	Total/NA	Water	RSK-175	
410-37993-7 - DL	A-19D_20210429	Total/NA	Water	RSK-175	
410-37993-10 - DL	B-170_20210429	Total/NA	Water	RSK-175	
410-37993-11 - DL	S-399_20210429	Total/NA	Water	RSK-175	
410-37993-14 - DL	A-21D_20210429	Total/NA	Water	RSK-175	
MB 410-122572/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-122572/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-122572/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

GC VOA

Prep Batch: 122664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-6 - DL	A-134_20210429	Total/NA	Water	RSK-175	
MB 410-122664/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-122664/2-A	Lab Control Sample	Total/NA	Water	RSK-175	

Analysis Batch: 122673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-6 - DL	A-134_20210429	Total/NA	Water	RSK-175	122664
MB 410-122664/1-A	Method Blank	Total/NA	Water	RSK-175	122664
LCS 410-122664/2-A	Lab Control Sample	Total/NA	Water	RSK-175	122664

Analysis Batch: 123090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-1 - DL	S-384_20210429	Total/NA	Water	RSK-175	122572
410-37993-4 - DL	S-306_20210429	Total/NA	Water	RSK-175	122572
410-37993-5 - DL	A-140_20210429	Total/NA	Water	RSK-175	122572
410-37993-7 - DL	A-19D_20210429	Total/NA	Water	RSK-175	122572
410-37993-10 - DL	B-170_20210429	Total/NA	Water	RSK-175	122572
410-37993-11 - DL	S-399_20210429	Total/NA	Water	RSK-175	122572
410-37993-14 - DL	A-21D_20210429	Total/NA	Water	RSK-175	122572
MB 410-122572/1-A	Method Blank	Total/NA	Water	RSK-175	122572
LCS 410-122572/2-A	Lab Control Sample	Total/NA	Water	RSK-175	122572
LCSD 410-122572/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	122572

GC Semi VOA

Prep Batch: 122367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-1	S-384_20210429	Total/NA	Water	8011	
410-37993-2	S-388D_20210429	Total/NA	Water	8011	
410-37993-3	DUP-4_20210429	Total/NA	Water	8011	
410-37993-4	S-306_20210429	Total/NA	Water	8011	
410-37993-5	A-140_20210429	Total/NA	Water	8011	
410-37993-6	A-134_20210429	Total/NA	Water	8011	
410-37993-7	A-19D_20210429	Total/NA	Water	8011	
410-37993-8	S-427_20210429	Total/NA	Water	8011	
410-37993-9	B-169_20210429	Total/NA	Water	8011	
MB 410-122367/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-122367/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-122367/3-A	Lab Control Sample Dup	Total/NA	Water	8011	
410-37993-1 MS	S-384_20210429	Total/NA	Water	8011	
410-37993-2 DU	S-388D_20210429	Total/NA	Water	8011	

Analysis Batch: 122532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-1	S-384_20210429	Total/NA	Water	8011	122367
410-37993-2	S-388D_20210429	Total/NA	Water	8011	122367
410-37993-3	DUP-4_20210429	Total/NA	Water	8011	122367
410-37993-4	S-306_20210429	Total/NA	Water	8011	122367
410-37993-5	A-140_20210429	Total/NA	Water	8011	122367
410-37993-6	A-134_20210429	Total/NA	Water	8011	122367
410-37993-7	A-19D_20210429	Total/NA	Water	8011	122367

GC Semi VOA (Continued)

Analysis Batch: 122532 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-8	S-427_20210429	Total/NA	Water	8011	122367
410-37993-9	B-169_20210429	Total/NA	Water	8011	122367
MB 410-122367/1-A	Method Blank	Total/NA	Water	8011	122367
LCS 410-122367/2-A	Lab Control Sample	Total/NA	Water	8011	122367
LCSD 410-122367/3-A	Lab Control Sample Dup	Total/NA	Water	8011	122367
410-37993-1 MS	S-384_20210429	Total/NA	Water	8011	122367
410-37993-2 DU	S-388D_20210429	Total/NA	Water	8011	122367

Prep Batch: 122942

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-10	B-170_20210429	Total/NA	Water	8011	
410-37993-11	S-399_20210429	Total/NA	Water	8011	
410-37993-12	S-398_20210429	Total/NA	Water	8011	
410-37993-14	A-21D_20210429	Total/NA	Water	8011	
MB 410-122942/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-122942/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-122942/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 123056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-10	B-170_20210429	Total/NA	Water	8011	122942
410-37993-11	S-399_20210429	Total/NA	Water	8011	122942
410-37993-12	S-398_20210429	Total/NA	Water	8011	122942
410-37993-14	A-21D_20210429	Total/NA	Water	8011	122942
MB 410-122942/1-A	Method Blank	Total/NA	Water	8011	122942

Analysis Batch: 123578

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-122942/2-A	Lab Control Sample	Total/NA	Water	8011	122942
LCSD 410-122942/3-A	Lab Control Sample Dup	Total/NA	Water	8011	122942

HPLC/IC

Analysis Batch: 122408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-1	S-384_20210429	Total/NA	Water	EPA 300.0 R2.1	
MB 410-122408/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-122408/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 122541

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-2	S-388D_20210429	Total/NA	Water	EPA 300.0 R2.1	
410-37993-3	DUP-4_20210429	Total/NA	Water	EPA 300.0 R2.1	
410-37993-4	S-306_20210429	Total/NA	Water	EPA 300.0 R2.1	
410-37993-5	A-140_20210429	Total/NA	Water	EPA 300.0 R2.1	
410-37993-6	A-134_20210429	Total/NA	Water	EPA 300.0 R2.1	
410-37993-7	A-19D_20210429	Total/NA	Water	EPA 300.0 R2.1	
410-37993-8	S-427_20210429	Total/NA	Water	EPA 300.0 R2.1	
410-37993-9	B-169_20210429	Total/NA	Water	EPA 300.0 R2.1	
410-37993-10	B-170_20210429	Total/NA	Water	EPA 300.0 R2.1	
410-37993-11	S-399_20210429	Total/NA	Water	EPA 300.0 R2.1	

HPLC/IC (Continued)

Analysis Batch: 122541 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-12	S-398_20210429	Total/NA	Water	EPA 300.0 R2.1	
410-37993-14	A-21D_20210429	Total/NA	Water	EPA 300.0 R2.1	
MB 410-122541/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-122541/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
410-37993-4 MS	S-306_20210429	Total/NA	Water	EPA 300.0 R2.1	
410-37993-12 MS	S-398_20210429	Total/NA	Water	EPA 300.0 R2.1	
410-37993-4 DU	S-306_20210429	Total/NA	Water	EPA 300.0 R2.1	
410-37993-12 DU	S-398_20210429	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 122491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-1	S-384_20210429	Total Recoverable	Water	3005A	
410-37993-7	A-19D_20210429	Total Recoverable	Water	3005A	
410-37993-8	S-427_20210429	Total Recoverable	Water	3005A	
410-37993-9	B-169_20210429	Total Recoverable	Water	3005A	
410-37993-10	B-170_20210429	Total Recoverable	Water	3005A	
410-37993-11	S-399_20210429	Total Recoverable	Water	3005A	
410-37993-12	S-398_20210429	Total Recoverable	Water	3005A	
410-37993-14	A-21D_20210429	Total Recoverable	Water	3005A	
MB 410-122491/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-122491/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 122492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-2	S-388D_20210429	Total Recoverable	Water	3005A	
410-37993-3	DUP-4_20210429	Total Recoverable	Water	3005A	
410-37993-4	S-306_20210429	Total Recoverable	Water	3005A	
410-37993-5	A-140_20210429	Total Recoverable	Water	3005A	
410-37993-6	A-134_20210429	Total Recoverable	Water	3005A	
MB 410-122492/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-122492/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
410-37993-6 MS	A-134_20210429	Total Recoverable	Water	3005A	
410-37993-6 MSD	A-134_20210429	Total Recoverable	Water	3005A	
410-37993-6 DU	A-134_20210429	Total Recoverable	Water	3005A	

Analysis Batch: 122852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-1	S-384_20210429	Total Recoverable	Water	6010C	122491
410-37993-7	A-19D_20210429	Total Recoverable	Water	6010C	122491
410-37993-8	S-427_20210429	Total Recoverable	Water	6010C	122491
410-37993-9	B-169_20210429	Total Recoverable	Water	6010C	122491
410-37993-10	B-170_20210429	Total Recoverable	Water	6010C	122491
410-37993-11	S-399_20210429	Total Recoverable	Water	6010C	122491
410-37993-12	S-398_20210429	Total Recoverable	Water	6010C	122491
410-37993-14	A-21D_20210429	Total Recoverable	Water	6010C	122491
MB 410-122491/1-A	Method Blank	Total Recoverable	Water	6010C	122491
LCS 410-122491/2-A	Lab Control Sample	Total Recoverable	Water	6010C	122491

Metals

Analysis Batch: 122861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-2	S-388D_20210429	Total Recoverable	Water	6010C	122492
410-37993-3	DUP-4_20210429	Total Recoverable	Water	6010C	122492
410-37993-4	S-306_20210429	Total Recoverable	Water	6010C	122492
410-37993-5	A-140_20210429	Total Recoverable	Water	6010C	122492
410-37993-6	A-134_20210429	Total Recoverable	Water	6010C	122492
MB 410-122492/1-A	Method Blank	Total Recoverable	Water	6010C	122492
LCS 410-122492/2-A	Lab Control Sample	Total Recoverable	Water	6010C	122492
410-37993-6 MS	A-134_20210429	Total Recoverable	Water	6010C	122492
410-37993-6 MSD	A-134_20210429	Total Recoverable	Water	6010C	122492
410-37993-6 DU	A-134_20210429	Total Recoverable	Water	6010C	122492

Prep Batch: 122979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-1	S-384_20210429	Dissolved	Water	Non-Digest Prep	
410-37993-2	S-388D_20210429	Dissolved	Water	Non-Digest Prep	
410-37993-3	DUP-4_20210429	Dissolved	Water	Non-Digest Prep	
410-37993-4	S-306_20210429	Dissolved	Water	Non-Digest Prep	
410-37993-5	A-140_20210429	Dissolved	Water	Non-Digest Prep	
410-37993-6	A-134_20210429	Dissolved	Water	Non-Digest Prep	
410-37993-7	A-19D_20210429	Dissolved	Water	Non-Digest Prep	
410-37993-8	S-427_20210429	Dissolved	Water	Non-Digest Prep	
410-37993-9	B-169_20210429	Dissolved	Water	Non-Digest Prep	
410-37993-10	B-170_20210429	Dissolved	Water	Non-Digest Prep	
410-37993-11	S-399_20210429	Dissolved	Water	Non-Digest Prep	
410-37993-12	S-398_20210429	Dissolved	Water	Non-Digest Prep	
410-37993-14	A-21D_20210429	Dissolved	Water	Non-Digest Prep	
MB 410-122979/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-122979/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	
410-37993-14 MS	A-21D_20210429	Dissolved	Water	Non-Digest Prep	
410-37993-14 MSD	A-21D_20210429	Dissolved	Water	Non-Digest Prep	
410-37993-14 DU	A-21D_20210429	Dissolved	Water	Non-Digest Prep	

Analysis Batch: 123312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-1	S-384_20210429	Dissolved	Water	6020A	122979
410-37993-2	S-388D_20210429	Dissolved	Water	6020A	122979
410-37993-3	DUP-4_20210429	Dissolved	Water	6020A	122979
410-37993-4	S-306_20210429	Dissolved	Water	6020A	122979
410-37993-5	A-140_20210429	Dissolved	Water	6020A	122979
410-37993-6	A-134_20210429	Dissolved	Water	6020A	122979
410-37993-7	A-19D_20210429	Dissolved	Water	6020A	122979
410-37993-8	S-427_20210429	Dissolved	Water	6020A	122979
410-37993-9	B-169_20210429	Dissolved	Water	6020A	122979
410-37993-10	B-170_20210429	Dissolved	Water	6020A	122979
410-37993-11	S-399_20210429	Dissolved	Water	6020A	122979
410-37993-12	S-398_20210429	Dissolved	Water	6020A	122979
410-37993-14	A-21D_20210429	Dissolved	Water	6020A	122979
MB 410-122979/1-A	Method Blank	Total/NA	Water	6020A	122979
LCS 410-122979/2-A	Lab Control Sample	Total/NA	Water	6020A	122979
410-37993-14 MS	A-21D_20210429	Dissolved	Water	6020A	122979
410-37993-14 MSD	A-21D_20210429	Dissolved	Water	6020A	122979

Metals (Continued)

Analysis Batch: 123312 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-14 DU	A-21D_20210429	Dissolved	Water	6020A	122979

General Chemistry

Prep Batch: 122117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-1	S-384_20210429	Total/NA	Water	351.2	
410-37993-2	S-388D_20210429	Total/NA	Water	351.2	
410-37993-3	DUP-4_20210429	Total/NA	Water	351.2	
410-37993-4	S-306_20210429	Total/NA	Water	351.2	
410-37993-5	A-140_20210429	Total/NA	Water	351.2	
410-37993-6	A-134_20210429	Total/NA	Water	351.2	
410-37993-7	A-19D_20210429	Total/NA	Water	351.2	
410-37993-8	S-427_20210429	Total/NA	Water	351.2	
410-37993-9	B-169_20210429	Total/NA	Water	351.2	
410-37993-10	B-170_20210429	Total/NA	Water	351.2	
410-37993-11	S-399_20210429	Total/NA	Water	351.2	
410-37993-12	S-398_20210429	Total/NA	Water	351.2	
410-37993-14	A-21D_20210429	Total/NA	Water	351.2	
MB 410-122117/2-A	Method Blank	Total/NA	Water	351.2	
LCS 410-122117/1-A	Lab Control Sample	Total/NA	Water	351.2	
410-37993-8 MS	S-427_20210429	Total/NA	Water	351.2	
410-37993-9 MS	B-169_20210429	Total/NA	Water	351.2	
410-37993-8 DU	S-427_20210429	Total/NA	Water	351.2	
410-37993-9 DU	B-169_20210429	Total/NA	Water	351.2	

Analysis Batch: 122817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-1	S-384_20210429	Total/NA	Water	2320B-2011	
410-37993-2	S-388D_20210429	Total/NA	Water	2320B-2011	
410-37993-3	DUP-4_20210429	Total/NA	Water	2320B-2011	
410-37993-4	S-306_20210429	Total/NA	Water	2320B-2011	
410-37993-5	A-140_20210429	Total/NA	Water	2320B-2011	
410-37993-6	A-134_20210429	Total/NA	Water	2320B-2011	
410-37993-7	A-19D_20210429	Total/NA	Water	2320B-2011	
410-37993-9	B-169_20210429	Total/NA	Water	2320B-2011	
410-37993-10	B-170_20210429	Total/NA	Water	2320B-2011	
410-37993-11	S-399_20210429	Total/NA	Water	2320B-2011	
410-37993-12	S-398_20210429	Total/NA	Water	2320B-2011	
410-37993-14	A-21D_20210429	Total/NA	Water	2320B-2011	
MB 410-122817/84	Method Blank	Total/NA	Water	2320B-2011	
LCS 410-122817/85	Lab Control Sample	Total/NA	Water	2320B-2011	
410-37993-1 MS	S-384_20210429	Total/NA	Water	2320B-2011	
410-37993-1 DU	S-384_20210429	Total/NA	Water	2320B-2011	
410-37993-2 DU	S-388D_20210429	Total/NA	Water	2320B-2011	

Analysis Batch: 123209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-1	S-384_20210429	Total/NA	Water	5310 B-2011	
410-37993-2	S-388D_20210429	Total/NA	Water	5310 B-2011	
410-37993-3	DUP-4_20210429	Total/NA	Water	5310 B-2011	

General Chemistry (Continued)

Analysis Batch: 123209 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-5	A-140_20210429	Total/NA	Water	5310 B-2011	
410-37993-6	A-134_20210429	Total/NA	Water	5310 B-2011	
410-37993-7	A-19D_20210429	Total/NA	Water	5310 B-2011	
410-37993-8	S-427_20210429	Total/NA	Water	5310 B-2011	
410-37993-9	B-169_20210429	Total/NA	Water	5310 B-2011	
410-37993-10	B-170_20210429	Total/NA	Water	5310 B-2011	
410-37993-11	S-399_20210429	Total/NA	Water	5310 B-2011	
410-37993-12	S-398_20210429	Total/NA	Water	5310 B-2011	
410-37993-14	A-21D_20210429	Total/NA	Water	5310 B-2011	
MB 410-123209/5	Method Blank	Total/NA	Water	5310 B-2011	
LCS 410-123209/36	Lab Control Sample	Total/NA	Water	5310 B-2011	
LCS 410-123209/4	Lab Control Sample	Total/NA	Water	5310 B-2011	
410-37993-5 MS	A-140_20210429	Total/NA	Water	5310 B-2011	
410-37993-5 DU	A-140_20210429	Total/NA	Water	5310 B-2011	

Analysis Batch: 123355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-4	S-306_20210429	Total/NA	Water	5310 B-2011	
MB 410-123355/4	Method Blank	Total/NA	Water	5310 B-2011	

Analysis Batch: 123828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-8	S-427_20210429	Total/NA	Water	2320B-2011	
MB 410-123828/33	Method Blank	Total/NA	Water	2320B-2011	
MB 410-123828/43	Method Blank	Total/NA	Water	2320B-2011	
LCS 410-123828/34	Lab Control Sample	Total/NA	Water	2320B-2011	
LCS 410-123828/44	Lab Control Sample	Total/NA	Water	2320B-2011	
410-37993-8 DU	S-427_20210429	Total/NA	Water	2320B-2011	

Analysis Batch: 123867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-1	S-384_20210429	Total/NA	Water	5310C-2011	
410-37993-2	S-388D_20210429	Total/NA	Water	5310C-2011	
410-37993-3	DUP-4_20210429	Total/NA	Water	5310C-2011	
410-37993-4	S-306_20210429	Total/NA	Water	5310C-2011	
410-37993-5	A-140_20210429	Total/NA	Water	5310C-2011	
410-37993-6	A-134_20210429	Total/NA	Water	5310C-2011	
410-37993-7	A-19D_20210429	Total/NA	Water	5310C-2011	
410-37993-8	S-427_20210429	Total/NA	Water	5310C-2011	
410-37993-9	B-169_20210429	Total/NA	Water	5310C-2011	
410-37993-10	B-170_20210429	Total/NA	Water	5310C-2011	
410-37993-11	S-399_20210429	Total/NA	Water	5310C-2011	
410-37993-12	S-398_20210429	Total/NA	Water	5310C-2011	
410-37993-14	A-21D_20210429	Total/NA	Water	5310C-2011	
MB 410-123867/37	Method Blank	Total/NA	Water	5310C-2011	
LCS 410-123867/36	Lab Control Sample	Total/NA	Water	5310C-2011	
410-37993-9 MS	B-169_20210429	Total/NA	Water	5310C-2011	
410-37993-9 DU	B-169_20210429	Total/NA	Water	5310C-2011	

General Chemistry

Analysis Batch: 124510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-1	S-384_20210429	Total/NA	Water	SM5310C	
410-37993-2	S-388D_20210429	Total/NA	Water	SM5310C	
410-37993-3	DUP-4_20210429	Total/NA	Water	SM5310C	
410-37993-4	S-306_20210429	Total/NA	Water	SM5310C	
410-37993-5	A-140_20210429	Total/NA	Water	SM5310C	
410-37993-6	A-134_20210429	Total/NA	Water	SM5310C	
410-37993-7	A-19D_20210429	Total/NA	Water	SM5310C	
410-37993-8	S-427_20210429	Total/NA	Water	SM5310C	
410-37993-9	B-169_20210429	Total/NA	Water	SM5310C	
410-37993-10	B-170_20210429	Total/NA	Water	SM5310C	
410-37993-11	S-399_20210429	Total/NA	Water	SM5310C	
410-37993-12	S-398_20210429	Total/NA	Water	SM5310C	
410-37993-14	A-21D_20210429	Total/NA	Water	SM5310C	

Analysis Batch: 125533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37993-1	S-384_20210429	Total/NA	Water	351.2	122117
410-37993-2	S-388D_20210429	Total/NA	Water	351.2	122117
410-37993-3	DUP-4_20210429	Total/NA	Water	351.2	122117
410-37993-4	S-306_20210429	Total/NA	Water	351.2	122117
410-37993-5	A-140_20210429	Total/NA	Water	351.2	122117
410-37993-6	A-134_20210429	Total/NA	Water	351.2	122117
410-37993-7	A-19D_20210429	Total/NA	Water	351.2	122117
410-37993-8	S-427_20210429	Total/NA	Water	351.2	122117
410-37993-9	B-169_20210429	Total/NA	Water	351.2	122117
410-37993-10	B-170_20210429	Total/NA	Water	351.2	122117
410-37993-11	S-399_20210429	Total/NA	Water	351.2	122117
410-37993-12	S-398_20210429	Total/NA	Water	351.2	122117
410-37993-14	A-21D_20210429	Total/NA	Water	351.2	122117
MB 410-122117/2-A	Method Blank	Total/NA	Water	351.2	122117
LCS 410-122117/1-A	Lab Control Sample	Total/NA	Water	351.2	122117
410-37993-8 MS	S-427_20210429	Total/NA	Water	351.2	122117
410-37993-9 MS	B-169_20210429	Total/NA	Water	351.2	122117
410-37993-8 DU	S-427_20210429	Total/NA	Water	351.2	122117
410-37993-9 DU	B-169_20210429	Total/NA	Water	351.2	122117

Client Sample ID: S-384_20210429

Lab Sample ID: 410-37993-1

Date Collected: 04/29/21 08:15

Matrix: Water

Date Received: 04/30/21 17:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	122605	05/05/21 13:34	USEJ	ELLE
Total/NA	Prep	3510C			123094	05/06/21 10:15	R9CT	ELLE
Total/NA	Analysis	8270D		1	124307	05/10/21 18:13	W6XI	ELLE
Total/NA	Prep	RSK-175			122112	05/04/21 12:37	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	122090	05/04/21 16:08	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		122572	05/06/21 07:40	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	20	123090	05/06/21 10:35	LXF2	ELLE
Total/NA	Prep	8011			122367	05/04/21 18:00	QQ3P	ELLE
Total/NA	Analysis	8011		1	122532	05/05/21 19:18	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	122408	05/05/21 00:41	GJ35	ELLE
Total Recoverable	Prep	3005A			122491	05/05/21 01:31	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	122852	05/05/21 15:33	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			122979	05/05/21 21:39	UJLA	ELLE
Dissolved	Analysis	6020A		1	123312	05/06/21 11:57	S8DY	ELLE
Total/NA	Analysis	2320B-2011		1	122817	05/05/21 03:27	DI9Q	ELLE
Total/NA	Prep	351.2			122117	05/04/21 07:20	UNJS	ELLE
Total/NA	Analysis	351.2		1	125533	05/12/21 11:28	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		5	123209	05/05/21 23:12	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	123867	05/07/21 04:04	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:12	NKL9	ELLE

Client Sample ID: S-388D_20210429

Lab Sample ID: 410-37993-2

Date Collected: 04/29/21 08:55

Matrix: Water

Date Received: 04/30/21 17:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	122605	05/05/21 13:58	USEJ	ELLE
Total/NA	Prep	3510C			123094	05/06/21 10:15	R9CT	ELLE
Total/NA	Analysis	8270D		1	124307	05/10/21 18:42	W6XI	ELLE
Total/NA	Prep	RSK-175			122112	05/04/21 12:37	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	122090	05/04/21 16:25	LXF2	ELLE
Total/NA	Prep	8011			122367	05/04/21 18:00	QQ3P	ELLE
Total/NA	Analysis	8011		1	122532	05/05/21 19:52	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		50	122541	05/05/21 06:15	W5UX	ELLE
Total Recoverable	Prep	3005A			122492	05/05/21 01:35	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	122861	05/05/21 14:18	MDP5	ELLE
Dissolved	Prep	Non-Digest Prep			122979	05/05/21 21:39	UJLA	ELLE
Dissolved	Analysis	6020A		1	123312	05/06/21 11:43	S8DY	ELLE
Total/NA	Analysis	2320B-2011		1	122817	05/05/21 03:47	DI9Q	ELLE
Total/NA	Prep	351.2			122117	05/04/21 07:20	UNJS	ELLE
Total/NA	Analysis	351.2		1	125533	05/12/21 11:22	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		5	123209	05/05/21 23:22	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	123867	05/07/21 04:18	KGQ6	ELLE

Client Sample ID: S-388D_20210429

Lab Sample ID: 410-37993-2

Date Collected: 04/29/21 08:55

Matrix: Water

Date Received: 04/30/21 17:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:12	NKL9	ELLE

Client Sample ID: DUP-4_20210429

Lab Sample ID: 410-37993-3

Date Collected: 04/29/21 12:00

Matrix: Water

Date Received: 04/30/21 17:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	122605	05/05/21 14:22	USEJ	ELLE
Total/NA	Prep	3510C			123094	05/06/21 10:15	R9CT	ELLE
Total/NA	Analysis	8270D		1	124307	05/10/21 19:11	W6XI	ELLE
Total/NA	Prep	RSK-175			122112	05/04/21 12:37	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	122090	05/04/21 16:42	LXF2	ELLE
Total/NA	Prep	8011			122367	05/04/21 18:00	QQ3P	ELLE
Total/NA	Analysis	8011		1	122532	05/05/21 20:09	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		50	122541	05/05/21 06:45	W5UX	ELLE
Total Recoverable	Prep	3005A			122492	05/05/21 01:35	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	122861	05/05/21 14:30	MDP5	ELLE
Dissolved	Prep	Non-Digest Prep			122979	05/05/21 21:39	UJLA	ELLE
Dissolved	Analysis	6020A		1	123312	05/06/21 12:03	S8DY	ELLE
Total/NA	Analysis	2320B-2011		1	122817	05/05/21 04:55	DI9Q	ELLE
Total/NA	Prep	351.2			122117	05/04/21 07:20	UNJS	ELLE
Total/NA	Analysis	351.2		1	125533	05/12/21 11:07	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		5	123209	05/05/21 23:33	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	123867	05/07/21 04:32	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:12	NKL9	ELLE

Client Sample ID: S-306_20210429

Lab Sample ID: 410-37993-4

Date Collected: 04/29/21 09:20

Matrix: Water

Date Received: 04/30/21 17:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	122605	05/05/21 14:46	USEJ	ELLE
Total/NA	Prep	3510C			123094	05/06/21 10:15	R9CT	ELLE
Total/NA	Analysis	8270D		1	124307	05/10/21 19:40	W6XI	ELLE
Total/NA	Prep	RSK-175			122112	05/04/21 12:37	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	122090	05/04/21 16:59	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		122572	05/06/21 07:40	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	50	123090	05/06/21 11:19	LXF2	ELLE
Total/NA	Prep	8011			122367	05/04/21 18:00	QQ3P	ELLE
Total/NA	Analysis	8011		1	122532	05/05/21 20:26	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	122541	05/05/21 05:15	W5UX	ELLE
Total Recoverable	Prep	3005A			122492	05/05/21 01:35	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	122861	05/05/21 14:21	MDP5	ELLE

Client Sample ID: S-306_20210429

Lab Sample ID: 410-37993-4

Date Collected: 04/29/21 09:20

Matrix: Water

Date Received: 04/30/21 17:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			122979	05/05/21 21:39	UJLA	ELLE
Dissolved	Analysis	6020A		1	123312	05/06/21 11:42	S8DY	ELLE
Total/NA	Analysis	2320B-2011		1	122817	05/05/21 04:35	DI9Q	ELLE
Total/NA	Prep	351.2			122117	05/04/21 07:20	UNJS	ELLE
Total/NA	Analysis	351.2		50	125533	05/12/21 10:57	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	123355	05/06/21 12:58	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	123867	05/07/21 04:46	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:13	NKL9	ELLE

Client Sample ID: A-140_20210429

Lab Sample ID: 410-37993-5

Date Collected: 04/29/21 08:50

Matrix: Water

Date Received: 04/30/21 17:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	122612	05/05/21 17:23	USEJ	ELLE
Total/NA	Prep	3510C			123094	05/06/21 10:15	R9CT	ELLE
Total/NA	Analysis	8270D		1	124307	05/10/21 20:09	W6XI	ELLE
Total/NA	Prep	RSK-175			122112	05/04/21 12:37	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	122090	05/04/21 17:16	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		122572	05/06/21 07:40	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	50	123090	05/06/21 11:37	LXF2	ELLE
Total/NA	Prep	8011			122367	05/04/21 18:00	QQ3P	ELLE
Total/NA	Analysis	8011		1	122532	05/05/21 20:43	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	122541	05/05/21 07:00	W5UX	ELLE
Total Recoverable	Prep	3005A			122492	05/05/21 01:35	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	122861	05/05/21 14:43	MDP5	ELLE
Dissolved	Prep	Non-Digest Prep			122979	05/05/21 21:39	UJLA	ELLE
Dissolved	Analysis	6020A		1	123312	05/06/21 11:40	S8DY	ELLE
Total/NA	Analysis	2320B-2011		1	122817	05/05/21 05:38	DI9Q	ELLE
Total/NA	Prep	351.2			122117	05/04/21 07:20	UNJS	ELLE
Total/NA	Analysis	351.2		1	125533	05/12/21 11:30	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	123209	05/06/21 00:39	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	123867	05/07/21 05:28	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:13	NKL9	ELLE

Client Sample ID: A-134_20210429

Lab Sample ID: 410-37993-6

Date Collected: 04/29/21 09:55

Matrix: Water

Date Received: 04/30/21 17:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	123230	05/06/21 18:18	LCW8	ELLE
Total/NA	Prep	3510C			123376	05/06/21 15:57	DN9W	ELLE
Total/NA	Analysis	8270D		1	123874	05/07/21 21:04	SJ89	ELLE

Client Sample ID: A-134_20210429

Lab Sample ID: 410-37993-6

Date Collected: 04/29/21 09:55

Matrix: Water

Date Received: 04/30/21 17:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	RSK-175			122112	05/04/21 12:37	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	122090	05/04/21 17:49	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		122664	05/05/21 08:50	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	100	122673	05/05/21 12:42	LXF2	ELLE
Total/NA	Prep	8011			122367	05/04/21 18:00	QQ3P	ELLE
Total/NA	Analysis	8011		1	122532	05/05/21 21:00	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	122541	05/05/21 07:45	W5UX	ELLE
Total Recoverable	Prep	3005A			122492	05/05/21 01:35	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	122861	05/05/21 14:00	MDP5	ELLE
Dissolved	Prep	Non-Digest Prep			122979	05/05/21 21:39	UJLA	ELLE
Dissolved	Analysis	6020A		1	123312	05/06/21 11:49	S8DY	ELLE
Total/NA	Analysis	2320B-2011		1	122817	05/05/21 04:42	DI9Q	ELLE
Total/NA	Prep	351.2			122117	05/04/21 07:20	UNJS	ELLE
Total/NA	Analysis	351.2		1	125533	05/12/21 11:16	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		5	123209	05/06/21 01:11	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	123867	05/07/21 05:42	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:13	NKL9	ELLE

Client Sample ID: A-19D_20210429

Lab Sample ID: 410-37993-7

Date Collected: 04/29/21 11:20

Matrix: Water

Date Received: 04/30/21 17:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	122612	05/05/21 18:11	USEJ	ELLE
Total/NA	Prep	3510C			123376	05/06/21 15:57	DN9W	ELLE
Total/NA	Analysis	8270D		1	123874	05/07/21 21:33	SJ89	ELLE
Total/NA	Prep	RSK-175			122112	05/04/21 12:37	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	122090	05/04/21 18:06	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		122572	05/06/21 07:40	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	5	123090	05/06/21 11:56	LXF2	ELLE
Total/NA	Prep	8011			122367	05/04/21 18:00	QQ3P	ELLE
Total/NA	Analysis	8011		1	122532	05/05/21 21:17	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	122541	05/05/21 08:16	W5UX	ELLE
Total Recoverable	Prep	3005A			122491	05/05/21 01:31	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	122852	05/05/21 14:23	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			122979	05/05/21 21:39	UJLA	ELLE
Dissolved	Analysis	6020A		1	123312	05/06/21 11:47	S8DY	ELLE
Total/NA	Analysis	2320B-2011		1	122817	05/05/21 04:28	DI9Q	ELLE
Total/NA	Prep	351.2			122117	05/04/21 07:20	UNJS	ELLE
Total/NA	Analysis	351.2		1	125533	05/12/21 11:09	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		5	123209	05/06/21 01:22	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	123867	05/07/21 05:56	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:13	NKL9	ELLE

Client Sample ID: S-427_20210429

Lab Sample ID: 410-37993-8

Date Collected: 04/29/21 10:40

Matrix: Water

Date Received: 04/30/21 17:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	122612	05/05/21 18:35	USEJ	ELLE
Total/NA	Prep	3510C			123376	05/06/21 15:57	DN9W	ELLE
Total/NA	Analysis	8270D		1	123874	05/07/21 22:02	SJ89	ELLE
Total/NA	Prep	RSK-175			122112	05/04/21 12:37	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	122090	05/04/21 18:23	LXF2	ELLE
Total/NA	Prep	8011			122367	05/04/21 18:00	QQ3P	ELLE
Total/NA	Analysis	8011		1	122532	05/05/21 21:34	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	122541	05/05/21 08:31	W5UX	ELLE
Total Recoverable	Prep	3005A			122491	05/05/21 01:31	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	122852	05/05/21 15:17	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			122979	05/05/21 21:39	UJLA	ELLE
Dissolved	Analysis	6020A		1	123312	05/06/21 11:53	S8DY	ELLE
Total/NA	Analysis	2320B-2011		1	123828	05/06/21 22:33	DI9Q	ELLE
Total/NA	Prep	351.2			122117	05/04/21 07:20	UNJS	ELLE
Total/NA	Analysis	351.2		1	125533	05/12/21 10:51	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		5	123209	05/06/21 01:33	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	123867	05/07/21 06:10	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:13	NKL9	ELLE

Client Sample ID: B-169_20210429

Lab Sample ID: 410-37993-9

Date Collected: 04/29/21 12:20

Matrix: Water

Date Received: 04/30/21 17:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	122612	05/05/21 18:59	USEJ	ELLE
Total/NA	Prep	3510C			123376	05/06/21 15:57	DN9W	ELLE
Total/NA	Analysis	8270D		1	123874	05/07/21 22:31	SJ89	ELLE
Total/NA	Prep	RSK-175			122112	05/04/21 12:37	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	122090	05/04/21 18:40	LXF2	ELLE
Total/NA	Prep	8011			122367	05/04/21 18:00	QQ3P	ELLE
Total/NA	Analysis	8011		1	122532	05/05/21 21:51	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	122541	05/05/21 09:01	W5UX	ELLE
Total Recoverable	Prep	3005A			122491	05/05/21 01:31	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	122852	05/05/21 15:30	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			122979	05/05/21 21:39	UJLA	ELLE
Dissolved	Analysis	6020A		1	123312	05/06/21 11:51	S8DY	ELLE
Total/NA	Analysis	2320B-2011		1	122817	05/05/21 05:31	DI9Q	ELLE
Total/NA	Prep	351.2			122117	05/04/21 07:20	UNJS	ELLE
Total/NA	Analysis	351.2		1	125533	05/12/21 11:32	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		5	123209	05/06/21 01:43	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	123867	05/07/21 06:24	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:13	NKL9	ELLE

Client Sample ID: B-170_20210429

Lab Sample ID: 410-37993-10

Date Collected: 04/29/21 13:40

Matrix: Water

Date Received: 04/30/21 17:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	123230	05/06/21 18:41	LCW8	ELLE
Total/NA	Prep	3510C			123376	05/06/21 15:57	DN9W	ELLE
Total/NA	Analysis	8270D		1	123874	05/07/21 23:00	SJ89	ELLE
Total/NA	Prep	RSK-175			122112	05/04/21 12:37	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	122090	05/04/21 18:57	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		122572	05/06/21 07:40	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	50	123090	05/06/21 12:14	LXF2	ELLE
Total/NA	Prep	8011			122942	05/05/21 19:45	QQ3P	ELLE
Total/NA	Analysis	8011		1	123056	05/06/21 09:42	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	122541	05/05/21 09:16	W5UX	ELLE
Total Recoverable	Prep	3005A			122491	05/05/21 01:31	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	122852	05/05/21 15:26	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			122979	05/05/21 21:39	UJLA	ELLE
Dissolved	Analysis	6020A		1	123312	05/06/21 11:45	S8DY	ELLE
Total/NA	Analysis	2320B-2011		1	122817	05/05/21 04:49	DI9Q	ELLE
Total/NA	Prep	351.2			122117	05/04/21 07:20	UNJS	ELLE
Total/NA	Analysis	351.2		1	125533	05/12/21 11:18	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		5	123209	05/06/21 01:54	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	123867	05/07/21 07:06	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:13	NKL9	ELLE

Client Sample ID: S-399_20210429

Lab Sample ID: 410-37993-11

Date Collected: 04/29/21 14:30

Matrix: Water

Date Received: 04/30/21 17:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	122612	05/05/21 19:48	USEJ	ELLE
Total/NA	Prep	3510C			123376	05/06/21 15:57	DN9W	ELLE
Total/NA	Analysis	8270D		1	123874	05/07/21 23:29	SJ89	ELLE
Total/NA	Prep	RSK-175			122112	05/04/21 12:37	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	122090	05/04/21 19:14	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		122572	05/06/21 07:40	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	5	123090	05/06/21 12:32	LXF2	ELLE
Total/NA	Prep	8011			122942	05/05/21 19:45	QQ3P	ELLE
Total/NA	Analysis	8011		1	123056	05/06/21 09:59	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	122541	05/05/21 09:31	W5UX	ELLE
Total Recoverable	Prep	3005A			122491	05/05/21 01:31	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	122852	05/05/21 15:23	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			122979	05/05/21 21:39	UJLA	ELLE
Dissolved	Analysis	6020A		1	123312	05/06/21 12:05	S8DY	ELLE
Total/NA	Analysis	2320B-2011		1	122817	05/05/21 05:02	DI9Q	ELLE
Total/NA	Prep	351.2			122117	05/04/21 07:20	UNJS	ELLE
Total/NA	Analysis	351.2		1	125533	05/12/21 11:05	JCG7	ELLE

Client Sample ID: S-399_20210429

Lab Sample ID: 410-37993-11

Date Collected: 04/29/21 14:30

Matrix: Water

Date Received: 04/30/21 17:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	5310 B-2011		5	123209	05/06/21 02:27	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	123867	05/07/21 07:20	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:13	NKL9	ELLE

Client Sample ID: S-398_20210429

Lab Sample ID: 410-37993-12

Date Collected: 04/29/21 10:40

Matrix: Water

Date Received: 04/30/21 17:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	122612	05/05/21 20:12	USEJ	ELLE
Total/NA	Prep	3510C			123089	05/06/21 10:15	R9CT	ELLE
Total/NA	Analysis	8270D		1	124654	05/11/21 03:23	W6XI	ELLE
Total/NA	Prep	RSK-175			122112	05/04/21 12:37	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	122090	05/04/21 19:30	LXF2	ELLE
Total/NA	Prep	8011			122942	05/05/21 19:45	QQ3P	ELLE
Total/NA	Analysis	8011		1	123056	05/06/21 10:16	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		50	122541	05/05/21 09:46	W5UX	ELLE
Total Recoverable	Prep	3005A			122491	05/05/21 01:31	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	122852	05/05/21 15:04	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			122979	05/05/21 21:39	UJLA	ELLE
Dissolved	Analysis	6020A		1	123312	05/06/21 11:55	S8DY	ELLE
Total/NA	Analysis	2320B-2011		1	122817	05/05/21 05:25	DI9Q	ELLE
Total/NA	Prep	351.2			122117	05/04/21 07:20	UNJS	ELLE
Total/NA	Analysis	351.2		1	125533	05/12/21 11:03	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		5	123209	05/06/21 02:38	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	123867	05/07/21 07:34	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:13	NKL9	ELLE

Client Sample ID: TB_20210430

Lab Sample ID: 410-37993-13

Date Collected: 04/30/21 00:00

Matrix: Water

Date Received: 04/30/21 17:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	122616	05/05/21 12:45	USEJ	ELLE

Client Sample ID: A-21D_20210429

Lab Sample ID: 410-37993-14

Date Collected: 04/29/21 14:20

Matrix: Water

Date Received: 04/30/21 17:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	122616	05/05/21 14:21	USEJ	ELLE
Total/NA	Prep	3510C			123089	05/06/21 10:15	R9CT	ELLE
Total/NA	Analysis	8270D		1	124654	05/11/21 03:53	W6XI	ELLE

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37993-1

Client Sample ID: A-21D_20210429
Date Collected: 04/29/21 14:20
Date Received: 04/30/21 17:24

Lab Sample ID: 410-37993-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	RSK-175			122112	05/04/21 12:37	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	122090	05/04/21 19:47	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		122572	05/06/21 07:40	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	50	123090	05/06/21 12:50	LXF2	ELLE
Total/NA	Prep	8011			122942	05/05/21 19:45	QQ3P	ELLE
Total/NA	Analysis	8011		1	123056	05/06/21 10:32	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	122541	05/05/21 11:01	W5UX	ELLE
Total Recoverable	Prep	3005A			122491	05/05/21 01:31	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	122852	05/05/21 15:20	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			122979	05/05/21 21:39	UJLA	ELLE
Dissolved	Analysis	6020A		1	123312	05/06/21 11:24	S8DY	ELLE
Total/NA	Analysis	2320B-2011		1	122817	05/05/21 05:08	DI9Q	ELLE
Total/NA	Prep	351.2			122117	05/04/21 07:20	UNJS	ELLE
Total/NA	Analysis	351.2		50	125533	05/12/21 11:20	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		5	123209	05/06/21 02:49	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	123867	05/07/21 08:17	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:13	NKL9	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37993-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
5310 B-2011		Water	Total Carbon
SM5310C		Water	Total Inorganic Carbon

Method Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37993-1

Method	Method Description	Protocol	Laboratory
8260C/UST	Volatile Organic Compounds (GC/MS)	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
RSK-175	Dissolved Gases (GC)	RSK	ELLE
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	ELLE
6010C	Metals (ICP)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
2320B-2011	Alkalinity, Total	SM	ELLE
351.2	Nitrogen, Total Kjeldahl	MCAWW	ELLE
5310 B-2011	Carbon, Total and Total Inorganic	SM	ELLE
5310C-2011	Total Organic Carbon/Persulfate - Ultrav	SM	ELLE
SM5310C	Carbon, Total Inorganic	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
351.2	Nitrogen, Total Kjeldahl	MCAWW	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
8011	Microextraction	SW846	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique , RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-37993-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-37993-1	S-384_20210429	Water	04/29/21 08:15	04/30/21 17:24	
410-37993-2	S-388D_20210429	Water	04/29/21 08:55	04/30/21 17:24	
410-37993-3	DUP-4_20210429	Water	04/29/21 12:00	04/30/21 17:24	
410-37993-4	S-306_20210429	Water	04/29/21 09:20	04/30/21 17:24	
410-37993-5	A-140_20210429	Water	04/29/21 08:50	04/30/21 17:24	
410-37993-6	A-134_20210429	Water	04/29/21 09:55	04/30/21 17:24	
410-37993-7	A-19D_20210429	Water	04/29/21 11:20	04/30/21 17:24	
410-37993-8	S-427_20210429	Water	04/29/21 10:40	04/30/21 17:24	
410-37993-9	B-169_20210429	Water	04/29/21 12:20	04/30/21 17:24	
410-37993-10	B-170_20210429	Water	04/29/21 13:40	04/30/21 17:24	
410-37993-11	S-399_20210429	Water	04/29/21 14:30	04/30/21 17:24	
410-37993-12	S-398_20210429	Water	04/29/21 10:40	04/30/21 17:24	
410-37993-13	TB_20210430	Water	04/30/21 00:00	04/30/21 17:24	
410-37993-14	A-21D_20210429	Water	04/29/21 14:20	04/30/21 17:24	

Environ quest/Chain of Custody

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Acct. #

410-37993 Chain of Custody

Client:	Evergreen c/o Stantec		
Project Name/#:	Former PES Annual GWS	Site ID #:	16657
Project Manager:	Andrew Bradley	P.O. #:	213403363
Sampler:	Dane Hopkins, Andrea Hill, Sean Pierce, Dana Hoblitzell	PWSID #:	
Phone #:	610.840.2541	Quote #:	
State where sample(s) were collected:	PA		

Matrix: ☐ Soil ☐ Sediment ☑ Water ☐ Potable ☐ Ground ☐ NPDES ☐ Surface ☐ Other: ☐ Trip Blank / Field Blank

Analyses Requested — Preservation Codes

For Lab Use Only: SF #: _____ SCR #: _____

Sample Identification	Collection Date	Collection Time	Grab	Composite	Total # of Containers	Evergreen Petroleum Short List (refer to attached list of analytes) H / NP	Dissolved Lead (field filtered) N	Total Inorganic Carbon (TIC) P/NP	Sulfate NP	Dissolved Headspace Gases (methane, ethane, ethene) H	Total Iron N	Total Calcium N	Total Kjeldahl Nitrogen (TKN) S	Alkalinity as CaCO3 NP	VOC 8260 / EDB 8011 H	Remarks
S-384_20210429	4/29/2021	8:15	X		18	X	X	X	X	X	X	X	X	X		
S-388D_20210429	4/29/2021	8:55	X		18	X	X	X	X	X	X	X	X	X		
DUP-4_20210429	4/29/2021	12:00	X		18	X	X	X	X	X	X	X	X	X		
S-306_20210429	4/29/2021	9:20	X		18	X	X	X	X	X	X	X	X	X		
A-140_20210429	4/29/2021	8:50	X		18	X	X	X	X	X	X	X	X	X		
A-134_20210429	4/29/2021	9:55	X		18	X	X	X	X	X	X	X	X	X		
A-19D_20210429	4/29/2021	11:20	X		18	X	X	X	X	X	X	X	X	X		
S-427_20210429	4/29/2021	10:40	X		18	X	X	X	X	X	X	X	X	X		
B-169_20210429	4/29/2021	12:20	X		18	X	X	X	X	X	X	X	X	X		
B-170_20210429	4/29/2021	13:40	X		18	X	X	X	X	X	X	X	X	X		

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other; NP = Non-Preserved

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed:

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: abradley@stantec.com

Phone: 610.840.2541

Data Package Options (please check if required)

Type I (Validation/non-CLP) ☐ MA MCP ☐
Type III (Reduced non-CLP) ☐ CT RCP ☐
Type IV (CLP SOW) ☐ TX TRRP-13 ☐
Type VI (Raw Data Only) ☐

EDD Required? Yes ☑ No ☐ If yes, format: ___ EQUIS

Relinquished by:	Date	Time	Received by:	Date	Time
	4/30/21	1400		4/30/21	14:00
	4/30	17:16			
				4/30/21	17:24

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt 3.3 - 8.4 °C

Environmental Analysis Request/Chain of Custody

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Acct. # _____ Group # _____ Sample # _____

Client: **Evergreen c/o Stantec**			
Project Name/#: Former PES Annual GWS	Site ID #: 16657		
Project Manager: Andrew Bradley	P.O. #: 213403363		
Sampler: Dane Hopkins, Andrea Hill, Sean Pierce, Dana Hoblitzell	PWSID #:		
Phone #: 610.840.2541	Quote #:		
State where sample(s) were collected: PA			

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Sediment	Water: Potable	Ground	NPDES	Surface	Other: Trip Blank / Field Blank	Total # of Containers	Evergreen Petroleum Short List (refer to attached list of analytes)	Dissolved Lead (field filtered)	Total Inorganic Carbon (TIC)	Sulfate	Dissolved Headspace Gases (methane, ethane, ethene)	Total Iron	Total Calcium	Total Kjeldahl Nitrogen (TKN)	Alkalinity as CaCO3	VOC 8260 / EDB 8011	Remarks
													Analyses Requested / Preservation Codes: H / NP	N	P/NP	NP	H	N	N	S	NP	H	
S-399_20210429	4/29/2021	14:30	X				X					18	X	X	X	X	X	X	X	X	X		
S-398_20210429	4/29/2021	10:40	X				X					18	X	X	X	X	X	X	X	X	X		
TB_20210430	4/12/2021	--	X								X	4										X	Trip Blank
A-21D_20210429	4/29/21	1420	X				X					18	X	X	X	X	X	X	X	X	X		

For Lab Use Only

SF #: _____

SCR #: _____

Preservation Codes

H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other; NP = Non-Preserved

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐

(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed:

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: abradley@stantec.com

Phone: 610.840.2541

Data Package Options (please check if required)

Type I (Validation/non-CLP) ☐ MA MCP ☐

Type III (Reduced non-CLP) ☐ CT RCP ☐

Type IV (CLP SOW) ☐ TX TRRP-13 ☐

Type VI (Raw Data Only) ☐

EDD Required? Yes ☑ No ☐ If yes, format: ___ EQUIS

Relinquished by:	Date	Time	Received by:	Date	Time
	4/30/21	1400		4/30/21	1400
	4/30	17:16			
				4/30/2021	17:24

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt 3.3-8.4 °C



Evergreen Petroleum Short List (June 2016)

VOCs by EPA Method 8260	CAS No.
Benzene	71-43-2
Cumene	98-82-8
Dichloroethane, 1,2-	107-06-2
Ethylbenzene	100-41-4
Ethylene Dibromide*	106-93-4
Methyl tert butyl ether	1634-04-4
Toluene	108-88-3
Trimethylbenzene, 1,2,4-	95-63-6
Trimethylbenzene, 1,3,5-	108-67-8
Xylenes	1330-20-7

SVOCs by EPA Method 8270	CAS No.
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Chrysene	218-01-9
Fluorene	86-73-7
Naphthalene**	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Metals by Method 6010/6020	CAS No.
Lead***	7439-92-1

*Ethylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

**Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

***Metals analysis should be total in soil and dissolved in groundwater.

This list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline and No. 1, 2, 4, 5, 6 Fuel Oils).

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-37993-1

Login Number: 37993

List Source: Eurofins Lancaster Laboratories Env

List Number: 1

Creator: Knoedler, Christine M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	False	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	False	Refer to Job Narrative for details.
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	True	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-38134-1
Client Project/Site: Former PES Annual GWS

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Mr. Andrew Bradley

Authorized for release by:
5/18/2021 12:27:54 PM

Amek Carter, Project Manager
(717)556-7252
Loran.Carter@eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
5/18/2021 12:27:54 PM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 6
Detection Summary 7
Client Sample Results 10
Surrogate Summary 23
QC Sample Results 25
QC Association Summary 37
Lab Chronicle 44
Certification Summary 49
Method Summary 50
Sample Summary 51
Chain of Custody 52
Receipt Checklists 54

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-38134-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-38134-1

Receipt
The samples were received on 5/3/2021 5:33 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 2.1°C, 3.3°C and 3.9°C

Receipt Exceptions
The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): S-425_20210430 (410-38134-3). The COC lists an ID of A-425_20210430. The sample container labels list an ID of S-425_20210430.

GC/MS VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38134-1

Client Sample ID: TB_20210503 — Lab Sample ID: 410-38134-1

No Detections.

Client Sample ID: FB_20210503 — Lab Sample ID: 410-38134-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	150	J	500	96	ug/L	1		6010C	Total Recoverable
Total Carbon	570	J	1000	500	ug/L	1		5310 B-2011	Total/NA

Client Sample ID: S-425_20210430 — Lab Sample ID: 410-38134-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.48	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Methane (1C)	81		5.0	3.0	ug/L	1		RSK-175	Total/NA
Sulfate	6600		5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	110000		500	96	ug/L	1		6010C	Total Recoverable
Iron	110000		200	40	ug/L	1		6010C	Total Recoverable
Lead	17		0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	150000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	2700		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	32000		5000	2500	ug/L	5		5310 B-2011	Total/NA
Total Organic Carbon	2900		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	29000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: A-182_20210430 — Lab Sample ID: 410-38134-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.20	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Methyl tert-butyl ether	0.87	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
t-Butyl alcohol	50		50	12	ug/L	1		8260C/UST	Total/NA
Toluene	0.22	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Methane (1C)	290		5.0	3.0	ug/L	1		RSK-175	Total/NA
Sulfate	25000		5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	44000		500	96	ug/L	1		6010C	Total Recoverable
Iron	1000		200	40	ug/L	1		6010C	Total Recoverable
Lead	0.087	J	0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	120000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	520	J *+	1000	500	ug/L	1		351.2	Total/NA
Total Carbon	27000		5000	2500	ug/L	5		5310 B-2011	Total/NA
Total Organic Carbon	3500		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	24000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: A-4_20210430 — Lab Sample ID: 410-38134-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methane (1C)	49		5.0	3.0	ug/L	1		RSK-175	Total/NA
Sulfate	4100	J	5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	26000		500	96	ug/L	1		6010C	Total Recoverable
Iron	1100		200	40	ug/L	1		6010C	Total Recoverable
Lead	0.30	J	0.52	0.073	ug/L	1		6020A	Dissolved

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample ID: A-4_20210430 (Continued) — Lab Sample ID: 410-38134-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Alkalinity as CaCO3 to pH 4.5	81000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Carbon	17000		1000	500	ug/L	1		5310 B-2011	Total/NA
Total Organic Carbon	2100		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	15000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: C-144D_20210430 — Lab Sample ID: 410-38134-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.69	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Methane (1C) - DL	520		50	30	ug/L	10		RSK-175	Total/NA
Sulfate	22000		5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	45000		500	96	ug/L	1		6010C	Total Recoverable
Iron	32000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	120000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	3600		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	37000		2000	1000	ug/L	2		5310 B-2011	Total/NA
Total Organic Carbon	4200		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	33000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: C-134D_20210430 — Lab Sample ID: 410-38134-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methane (1C) - DL	2000		50	30	ug/L	10		RSK-175	Total/NA
Sulfate	8700		5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	100000		500	96	ug/L	1		6010C	Total Recoverable
Iron	140000		200	40	ug/L	1		6010C	Total Recoverable
Lead	0.13	J	0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	310000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	2400		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	72000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	12000		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	60000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-218D_20210430 — Lab Sample ID: 410-38134-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	36		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Methane (1C)	27		5.0	3.0	ug/L	1		RSK-175	Total/NA
Sulfate	22000		5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	47000		500	96	ug/L	1		6010C	Total Recoverable
Iron	1100		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	300000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	1400		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	72000		5000	2500	ug/L	5		5310 B-2011	Total/NA
Total Organic Carbon	5100		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	67000		2000	600	ug/L	1		SM5310C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38134-1

Client Sample ID: S-38D2_20210430

Lab Sample ID: 410-38134-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloroethane	1.3		1.0	0.30	ug/L	1		8260C/UST	Total/NA
Phenanthrene	0.17	J	0.60	0.13	ug/L	1		8270D	Total/NA
Methane (1C)	220		5.0	3.0	ug/L	1		RSK-175	Total/NA
Sulfate	32000		5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	46000		500	96	ug/L	1		6010C	Total Recoverable
Iron	17000		200	40	ug/L	1		6010C	Total Recoverable
Lead	0.18	J	0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	240000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	1500		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	51000		5000	2500	ug/L	5		5310 B-2011	Total/NA
Total Organic Carbon	1800		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	49000		2000	600	ug/L	1		SM5310C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TB_20210503

Lab Sample ID: 410-38134-1

Date Collected: 05/03/21 00:00
Matrix: Water
Date Received: 05/03/21 17:33

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/05/21 13:09	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/05/21 13:09	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/05/21 13:09	1
Benzene	ND		1.0	0.20	ug/L			05/05/21 13:09	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/05/21 13:09	1
Ethylene Dibromide	ND		1.0	0.20	ug/L			05/05/21 13:09	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/05/21 13:09	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/05/21 13:09	1
Naphthalene	ND		5.0	1.0	ug/L			05/05/21 13:09	1
t-Butyl alcohol	ND		50	12	ug/L			05/05/21 13:09	1
Toluene	ND		1.0	0.20	ug/L			05/05/21 13:09	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/05/21 13:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*80 - 120*		*05/05/21 13:09*	*1*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*05/05/21 13:09*	*1*
Dibromofluoromethane (Surr)	*94*		*80 - 120*		*05/05/21 13:09*	*1*
Toluene-d8 (Surr)	*105*		*80 - 120*		*05/05/21 13:09*	*1*

Client Sample ID: FB_20210503

Lab Sample ID: 410-38134-2

Date Collected: 05/03/21 08:00
Matrix: Water
Date Received: 05/03/21 17:33

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/05/21 13:33	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/05/21 13:33	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/05/21 13:33	1
Benzene	ND		1.0	0.20	ug/L			05/05/21 13:33	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/05/21 13:33	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/05/21 13:33	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/05/21 13:33	1
t-Butyl alcohol	ND		50	12	ug/L			05/05/21 13:33	1
Toluene	ND		1.0	0.20	ug/L			05/05/21 13:33	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/05/21 13:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 120*		*05/05/21 13:33*	*1*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*05/05/21 13:33*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*05/05/21 13:33*	*1*
Toluene-d8 (Surr)	*106*		*80 - 120*		*05/05/21 13:33*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.51	0.10	ug/L		05/10/21 15:52	05/11/21 20:25	1
Benzo[a]anthracene	ND		0.51	0.10	ug/L		05/10/21 15:52	05/11/21 20:25	1
Benzo[a]pyrene	ND	*+	0.51	0.11	ug/L		05/10/21 15:52	05/11/21 20:25	1
Benzo[b]fluoranthene	ND		0.51	0.10	ug/L		05/10/21 15:52	05/11/21 20:25	1
Benzo[g,h,i]perylene	ND		0.51	0.10	ug/L		05/10/21 15:52	05/11/21 20:25	1
Chrysene	ND		0.51	0.10	ug/L		05/10/21 15:52	05/11/21 20:25	1
Fluorene	ND		0.51	0.12	ug/L		05/10/21 15:52	05/11/21 20:25	1

Client Sample ID: FB_20210503
Date Collected: 05/03/21 08:00
Date Received: 05/03/21 17:33

Lab Sample ID: 410-38134-2
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.51	0.10	ug/L		05/10/21 15:52	05/11/21 20:25	1
Phenanthrene	ND		0.51	0.11	ug/L		05/10/21 15:52	05/11/21 20:25	1
Pyrene	ND		0.51	0.10	ug/L		05/10/21 15:52	05/11/21 20:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*75*		*44 - 102*	*05/10/21 15:52*	*05/11/21 20:25*	*1*
Nitrobenzene-d5 (Surr)	*82*		*23 - 128*	*05/10/21 15:52*	*05/11/21 20:25*	*1*
p-Terphenyl-d14 (Surr)	*87*		*31 - 113*	*05/10/21 15:52*	*05/11/21 20:25*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/04/21 12:39	05/04/21 18:52	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/04/21 12:39	05/04/21 18:52	1
Methane (1C)	ND		5.0	3.0	ug/L		05/04/21 12:39	05/04/21 18:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*100*		*28 - 140*	*05/04/21 12:39*	*05/04/21 18:52*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0098	ug/L		05/05/21 19:45	05/06/21 11:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*102*		*46 - 136*	*05/05/21 19:45*	*05/06/21 11:06*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*101*		*46 - 136*	*05/05/21 19:45*	*05/06/21 11:06*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1000	300	ug/L			05/05/21 15:30	1

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**150**	**J**	500	96	ug/L		05/05/21 01:31	05/05/21 14:36	1
Iron	ND		200	40	ug/L		05/05/21 01:31	05/05/21 14:36	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/05/21 21:47	05/06/21 13:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8000	8000	ug/L			05/05/21 04:22	1
Total Kjeldahl Nitrogen	ND	*+	1000	500	ug/L		05/07/21 10:26	05/11/21 09:48	1
Total Carbon	**570**	**J**	1000	500	ug/L			05/06/21 03:00	1
Total Organic Carbon	ND		1000	500	ug/L			05/08/21 23:57	1
Total Inorganic Carbon	ND		2000	600	ug/L			05/10/21 15:13	1

Client Sample ID: S-425_20210430
Date Collected: 04/30/21 08:00
Date Received: 05/03/21 17:33

Lab Sample ID: 410-38134-3
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/05/21 14:46	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/05/21 14:46	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/05/21 14:46	1
Benzene	**0.48**	**J**	1.0	0.20	ug/L			05/05/21 14:46	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/05/21 14:46	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/05/21 14:46	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/05/21 14:46	1
t-Butyl alcohol	ND		50	12	ug/L			05/05/21 14:46	1
Toluene	ND		1.0	0.20	ug/L			05/05/21 14:46	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/05/21 14:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 120*		*05/05/21 14:46*	*1*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*		*05/05/21 14:46*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*05/05/21 14:46*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/05/21 14:46*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.55	0.11	ug/L		05/07/21 09:56	05/10/21 05:52	1
Benzo[a]anthracene	ND		0.55	0.11	ug/L		05/07/21 09:56	05/10/21 05:52	1
Benzo[a]pyrene	ND		0.55	0.12	ug/L		05/07/21 09:56	05/10/21 05:52	1
Benzo[b]fluoranthene	ND		0.55	0.11	ug/L		05/07/21 09:56	05/10/21 05:52	1
Benzo[g,h,i]perylene	ND		0.55	0.11	ug/L		05/07/21 09:56	05/10/21 05:52	1
Chrysene	ND		0.55	0.11	ug/L		05/07/21 09:56	05/10/21 05:52	1
Fluorene	ND		0.55	0.13	ug/L		05/07/21 09:56	05/10/21 05:52	1
Naphthalene	ND		0.55	0.11	ug/L		05/07/21 09:56	05/10/21 05:52	1
Phenanthrene	ND		0.55	0.12	ug/L		05/07/21 09:56	05/10/21 05:52	1
Pyrene	ND		0.55	0.11	ug/L		05/07/21 09:56	05/10/21 05:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*74*		*44 - 102*	*05/07/21 09:56*	*05/10/21 05:52*	*1*
Nitrobenzene-d5 (Surr)	*72*		*23 - 128*	*05/07/21 09:56*	*05/10/21 05:52*	*1*
p-Terphenyl-d14 (Surr)	*48*		*31 - 113*	*05/07/21 09:56*	*05/10/21 05:52*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/04/21 12:39	05/04/21 19:11	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/04/21 12:39	05/04/21 19:11	1
Methane (1C)	**81**		5.0	3.0	ug/L		05/04/21 12:39	05/04/21 19:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*90*		*28 - 140*	*05/04/21 12:39*	*05/04/21 19:11*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0097	ug/L		05/05/21 19:45	05/06/21 11:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*99*		*46 - 136*	*05/05/21 19:45*	*05/06/21 11:23*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*96*		*46 - 136*	*05/05/21 19:45*	*05/06/21 11:23*	*1*

Client Sample ID: S-425_20210430

Lab Sample ID: 410-38134-3

Date Collected: 04/30/21 08:00
Matrix: Water
Date Received: 05/03/21 17:33

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	6600		5000	1500	ug/L			05/05/21 15:47	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	110000		500	96	ug/L		05/05/21 01:31	05/05/21 14:26	1
Iron	110000		200	40	ug/L		05/05/21 01:31	05/05/21 14:26	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	17		0.52	0.073	ug/L		05/05/21 21:47	05/06/21 13:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	150000		8000	8000	ug/L			05/05/21 02:38	1
Total Kjeldahl Nitrogen	2700		1000	500	ug/L		05/05/21 07:15	05/05/21 13:50	1
Total Carbon	32000		5000	2500	ug/L			05/06/21 03:10	5
Total Organic Carbon	2900		1000	500	ug/L			05/09/21 00:12	1
Total Inorganic Carbon	29000		2000	600	ug/L			05/10/21 15:13	1

Client Sample ID: A-182_20210430

Lab Sample ID: 410-38134-4

Date Collected: 04/30/21 09:45
Matrix: Water
Date Received: 05/03/21 17:33

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/05/21 15:10	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/05/21 15:10	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/05/21 15:10	1
Benzene	0.20	J	1.0	0.20	ug/L			05/05/21 15:10	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/05/21 15:10	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/05/21 15:10	1
Methyl tert-butyl ether	0.87	J	1.0	0.20	ug/L			05/05/21 15:10	1
t-Butyl alcohol	50		50	12	ug/L			05/05/21 15:10	1
Toluene	0.22	J	1.0	0.20	ug/L			05/05/21 15:10	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/05/21 15:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*80 - 120*		*05/05/21 15:10*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*05/05/21 15:10*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*05/05/21 15:10*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*05/05/21 15:10*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.58	0.12	ug/L		05/07/21 09:56	05/10/21 06:22	1
Benzo[a]anthracene	ND		0.58	0.12	ug/L		05/07/21 09:56	05/10/21 06:22	1
Benzo[a]pyrene	ND		0.58	0.13	ug/L		05/07/21 09:56	05/10/21 06:22	1
Benzo[b]fluoranthene	ND		0.58	0.12	ug/L		05/07/21 09:56	05/10/21 06:22	1
Benzo[g,h,i]perylene	ND		0.58	0.12	ug/L		05/07/21 09:56	05/10/21 06:22	1
Chrysene	ND		0.58	0.12	ug/L		05/07/21 09:56	05/10/21 06:22	1
Fluorene	ND		0.58	0.14	ug/L		05/07/21 09:56	05/10/21 06:22	1

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38134-1

Client Sample ID: A-182_20210430
Date Collected: 04/30/21 09:45
Date Received: 05/03/21 17:33

Lab Sample ID: 410-38134-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.58	0.12	ug/L		05/07/21 09:56	05/10/21 06:22	1
Phenanthrene	ND		0.58	0.13	ug/L		05/07/21 09:56	05/10/21 06:22	1
Pyrene	ND		0.58	0.12	ug/L		05/07/21 09:56	05/10/21 06:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*77*		*44 - 102*	*05/07/21 09:56*	*05/10/21 06:22*	*1*
Nitrobenzene-d5 (Surr)	*75*		*23 - 128*	*05/07/21 09:56*	*05/10/21 06:22*	*1*
p-Terphenyl-d14 (Surr)	*85*		*31 - 113*	*05/07/21 09:56*	*05/10/21 06:22*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/04/21 12:39	05/04/21 19:29	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/04/21 12:39	05/04/21 19:29	1
Methane (1C)	**290**		5.0	3.0	ug/L		05/04/21 12:39	05/04/21 19:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*92*		*28 - 140*	*05/04/21 12:39*	*05/04/21 19:29*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0096	ug/L		05/05/21 19:45	05/06/21 11:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*107*		*46 - 136*	*05/05/21 19:45*	*05/06/21 11:40*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*103*		*46 - 136*	*05/05/21 19:45*	*05/06/21 11:40*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**25000**		5000	1500	ug/L			05/05/21 16:03	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**44000**		500	96	ug/L		05/05/21 01:31	05/05/21 14:55	1
Iron	**1000**		200	40	ug/L		05/05/21 01:31	05/05/21 14:55	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.087**	**J**	0.52	0.073	ug/L		05/05/21 21:47	05/06/21 13:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**120000**		8000	8000	ug/L			05/05/21 04:09	1
Total Kjeldahl Nitrogen	**520**	**J *+**	1000	500	ug/L		05/07/21 10:26	05/11/21 09:46	1
Total Carbon	**27000**		5000	2500	ug/L			05/06/21 03:43	5
Total Organic Carbon	**3500**		1000	500	ug/L			05/09/21 00:26	1
Total Inorganic Carbon	**24000**		2000	600	ug/L			05/10/21 15:13	1

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38134-1

Client Sample ID: A-4_20210430
Date Collected: 04/30/21 10:55
Date Received: 05/03/21 17:33

Lab Sample ID: 410-38134-5
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/05/21 15:34	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/05/21 15:34	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/05/21 15:34	1
Benzene	ND		1.0	0.20	ug/L			05/05/21 15:34	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/05/21 15:34	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/05/21 15:34	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/05/21 15:34	1
t-Butyl alcohol	ND		50	12	ug/L			05/05/21 15:34	1
Toluene	ND		1.0	0.20	ug/L			05/05/21 15:34	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/05/21 15:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*80 - 120*		*05/05/21 15:34*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*05/05/21 15:34*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*05/05/21 15:34*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/05/21 15:34*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.61	0.12	ug/L		05/07/21 09:56	05/10/21 06:52	1
Benzo[a]anthracene	ND		0.61	0.12	ug/L		05/07/21 09:56	05/10/21 06:52	1
Benzo[a]pyrene	ND		0.61	0.13	ug/L		05/07/21 09:56	05/10/21 06:52	1
Benzo[b]fluoranthene	ND		0.61	0.12	ug/L		05/07/21 09:56	05/10/21 06:52	1
Benzo[g,h,i]perylene	ND		0.61	0.12	ug/L		05/07/21 09:56	05/10/21 06:52	1
Chrysene	ND		0.61	0.12	ug/L		05/07/21 09:56	05/10/21 06:52	1
Fluorene	ND		0.61	0.15	ug/L		05/07/21 09:56	05/10/21 06:52	1
Naphthalene	ND		0.61	0.12	ug/L		05/07/21 09:56	05/10/21 06:52	1
Phenanthrene	ND		0.61	0.13	ug/L		05/07/21 09:56	05/10/21 06:52	1
Pyrene	ND		0.61	0.12	ug/L		05/07/21 09:56	05/10/21 06:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*76*		*44 - 102*	*05/07/21 09:56*	*05/10/21 06:52*	*1*
Nitrobenzene-d5 (Surr)	*79*		*23 - 128*	*05/07/21 09:56*	*05/10/21 06:52*	*1*
p-Terphenyl-d14 (Surr)	*86*		*31 - 113*	*05/07/21 09:56*	*05/10/21 06:52*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/04/21 12:39	05/04/21 19:48	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/04/21 12:39	05/04/21 19:48	1
Methane (1C)	**49**		5.0	3.0	ug/L		05/04/21 12:39	05/04/21 19:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*95*		*28 - 140*	*05/04/21 12:39*	*05/04/21 19:48*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0097	ug/L		05/05/21 19:45	05/06/21 11:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*109*		*46 - 136*	*05/05/21 19:45*	*05/06/21 11:57*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*105*		*46 - 136*	*05/05/21 19:45*	*05/06/21 11:57*	*1*

Client Sample ID: A-4_20210430

Lab Sample ID: 410-38134-5

Date Collected: 04/30/21 10:55
Matrix: Water
Date Received: 05/03/21 17:33

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**4100**	**J**	5000	1500	ug/L			05/05/21 16:35	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**26000**		500	96	ug/L		05/05/21 01:31	05/05/21 14:42	1
Iron	**1100**		200	40	ug/L		05/05/21 01:31	05/05/21 14:42	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.30**	**J**	0.52	0.073	ug/L		05/05/21 21:47	05/06/21 14:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**81000**		8000	8000	ug/L			05/05/21 04:15	1
Total Kjeldahl Nitrogen	ND		1000	500	ug/L		05/05/21 07:15	05/05/21 14:23	1
Total Carbon	**17000**		1000	500	ug/L			05/06/21 13:08	1
Total Organic Carbon	**2100**		1000	500	ug/L			05/09/21 00:40	1
Total Inorganic Carbon	**15000**		2000	600	ug/L			05/10/21 15:13	1

Client Sample ID: C-144D_20210430

Lab Sample ID: 410-38134-6

Date Collected: 04/30/21 10:50
Matrix: Water
Date Received: 05/03/21 17:33

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/05/21 15:58	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/05/21 15:58	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/05/21 15:58	1
Benzene	**0.69**	**J**	1.0	0.20	ug/L			05/05/21 15:58	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/05/21 15:58	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/05/21 15:58	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/05/21 15:58	1
t-Butyl alcohol	ND		50	12	ug/L			05/05/21 15:58	1
Toluene	ND		1.0	0.20	ug/L			05/05/21 15:58	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/05/21 15:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*80 - 120*		*05/05/21 15:58*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*05/05/21 15:58*	*1*
Dibromofluoromethane (Surr)	*92*		*80 - 120*		*05/05/21 15:58*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/05/21 15:58*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.54	0.11	ug/L		05/07/21 09:56	05/10/21 21:48	1
Benzo[a]anthracene	ND		0.54	0.11	ug/L		05/07/21 09:56	05/10/21 21:48	1
Benzo[a]pyrene	ND		0.54	0.12	ug/L		05/07/21 09:56	05/10/21 21:48	1
Benzo[b]fluoranthene	ND		0.54	0.11	ug/L		05/07/21 09:56	05/10/21 21:48	1
Benzo[g,h,i]perylene	ND		0.54	0.11	ug/L		05/07/21 09:56	05/10/21 21:48	1
Chrysene	ND		0.54	0.11	ug/L		05/07/21 09:56	05/10/21 21:48	1
Fluorene	ND		0.54	0.13	ug/L		05/07/21 09:56	05/10/21 21:48	1

Client Sample ID: C-144D_20210430
Date Collected: 04/30/21 10:50
Date Received: 05/03/21 17:33

Lab Sample ID: 410-38134-6
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.54	0.11	ug/L		05/07/21 09:56	05/10/21 21:48	1
Phenanthrene	ND		0.54	0.12	ug/L		05/07/21 09:56	05/10/21 21:48	1
Pyrene	ND		0.54	0.11	ug/L		05/07/21 09:56	05/10/21 21:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*75*		*44 - 102*	*05/07/21 09:56*	*05/10/21 21:48*	*1*
Nitrobenzene-d5 (Surr)	*73*		*23 - 128*	*05/07/21 09:56*	*05/10/21 21:48*	*1*
p-Terphenyl-d14 (Surr)	*75*		*31 - 113*	*05/07/21 09:56*	*05/10/21 21:48*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/04/21 12:39	05/04/21 20:07	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/04/21 12:39	05/04/21 20:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*94*		*28 - 140*	*05/04/21 12:39*	*05/04/21 20:07*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**520**		50	30	ug/L		05/06/21 07:40	05/06/21 09:59	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*97*		*28 - 140*	*05/06/21 07:40*	*05/06/21 09:59*	*10*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0098	ug/L		05/05/21 19:45	05/06/21 12:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*111*		*46 - 136*	*05/05/21 19:45*	*05/06/21 12:14*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*101*		*46 - 136*	*05/05/21 19:45*	*05/06/21 12:14*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**22000**		5000	1500	ug/L			05/05/21 16:12	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**45000**		500	96	ug/L		05/05/21 01:31	05/05/21 14:05	1
Iron	**32000**		200	40	ug/L		05/05/21 01:31	05/05/21 14:05	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/05/21 21:47	05/06/21 13:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**120000**		8000	8000	ug/L			05/05/21 02:55	1
Total Kjeldahl Nitrogen	**3600**		1000	500	ug/L		05/07/21 10:26	05/10/21 14:46	1
Total Carbon	**37000**		2000	1000	ug/L			05/06/21 13:19	2
Total Organic Carbon	**4200**		1000	500	ug/L			05/09/21 00:55	1
Total Inorganic Carbon	**33000**		2000	600	ug/L			05/10/21 15:13	1

Client Sample ID: C-134D_20210430
Date Collected: 04/30/21 11:25
Date Received: 05/03/21 17:33

Lab Sample ID: 410-38134-7
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/05/21 16:22	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/05/21 16:22	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/05/21 16:22	1
Benzene	ND		1.0	0.20	ug/L			05/05/21 16:22	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/05/21 16:22	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/05/21 16:22	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/05/21 16:22	1
t-Butyl alcohol	ND		50	12	ug/L			05/05/21 16:22	1
Toluene	ND		1.0	0.20	ug/L			05/05/21 16:22	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/05/21 16:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*80 - 120*		*05/05/21 16:22*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*05/05/21 16:22*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*05/05/21 16:22*	*1*
Toluene-d8 (Surr)	*106*		*80 - 120*		*05/05/21 16:22*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.55	0.11	ug/L		05/07/21 09:56	05/10/21 22:18	1
Benzo[a]anthracene	ND		0.55	0.11	ug/L		05/07/21 09:56	05/10/21 22:18	1
Benzo[a]pyrene	ND		0.55	0.12	ug/L		05/07/21 09:56	05/10/21 22:18	1
Benzo[b]fluoranthene	ND		0.55	0.11	ug/L		05/07/21 09:56	05/10/21 22:18	1
Benzo[g,h,i]perylene	ND		0.55	0.11	ug/L		05/07/21 09:56	05/10/21 22:18	1
Chrysene	ND		0.55	0.11	ug/L		05/07/21 09:56	05/10/21 22:18	1
Fluorene	ND		0.55	0.13	ug/L		05/07/21 09:56	05/10/21 22:18	1
Naphthalene	ND		0.55	0.11	ug/L		05/07/21 09:56	05/10/21 22:18	1
Phenanthrene	ND		0.55	0.12	ug/L		05/07/21 09:56	05/10/21 22:18	1
Pyrene	ND		0.55	0.11	ug/L		05/07/21 09:56	05/10/21 22:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*73*		*44 - 102*	*05/07/21 09:56*	*05/10/21 22:18*	*1*
Nitrobenzene-d5 (Surr)	*71*		*23 - 128*	*05/07/21 09:56*	*05/10/21 22:18*	*1*
p-Terphenyl-d14 (Surr)	*68*		*31 - 113*	*05/07/21 09:56*	*05/10/21 22:18*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/04/21 12:39	05/04/21 20:26	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/04/21 12:39	05/04/21 20:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*82*		*28 - 140*	*05/04/21 12:39*	*05/04/21 20:26*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**2000**		50	30	ug/L		05/06/21 07:40	05/06/21 10:17	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*96*		*28 - 140*	*05/06/21 07:40*	*05/06/21 10:17*	*10*

Client Sample ID: C-134D_20210430

Lab Sample ID: 410-38134-7

Date Collected: 04/30/21 11:25

Matrix: Water

Date Received: 05/03/21 17:33

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0097	ug/L		05/05/21 19:45	05/06/21 12:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*109*		*46 - 136*	*05/05/21 19:45*	*05/06/21 12:31*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*104*		*46 - 136*	*05/05/21 19:45*	*05/06/21 12:31*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**8700**		5000	1500	ug/L			05/05/21 17:06	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**100000**		500	96	ug/L		05/05/21 01:31	05/05/21 14:52	1
Iron	**140000**		200	40	ug/L		05/05/21 01:31	05/05/21 14:52	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.13**	**J**	0.52	0.073	ug/L		05/05/21 21:47	05/06/21 13:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**310000**		8000	8000	ug/L			05/05/21 02:32	1
Total Kjeldahl Nitrogen	**2400**		1000	500	ug/L		05/05/21 07:15	05/05/21 14:00	1
Total Carbon	**72000**		10000	5000	ug/L			05/06/21 04:37	10
Total Organic Carbon	**12000**		1000	500	ug/L			05/09/21 01:09	1
Total Inorganic Carbon	**60000**		2000	600	ug/L			05/10/21 15:13	1

Client Sample ID: S-218D_20210430

Lab Sample ID: 410-38134-8

Date Collected: 04/30/21 12:50

Matrix: Water

Date Received: 05/03/21 17:33

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/05/21 16:46	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/05/21 16:46	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/05/21 16:46	1
Benzene	ND		1.0	0.20	ug/L			05/05/21 16:46	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/05/21 16:46	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/05/21 16:46	1
Methyl tert-butyl ether	**36**		1.0	0.20	ug/L			05/05/21 16:46	1
t-Butyl alcohol	ND		50	12	ug/L			05/05/21 16:46	1
Toluene	ND		1.0	0.20	ug/L			05/05/21 16:46	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/05/21 16:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*80 - 120*		*05/05/21 16:46*	*1*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*		*05/05/21 16:46*	*1*
Dibromofluoromethane (Surr)	*100*		*80 - 120*		*05/05/21 16:46*	*1*
Toluene-d8 (Surr)	*106*		*80 - 120*		*05/05/21 16:46*	*1*

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38134-1

Client Sample ID: S-218D_20210430

Date Collected: 04/30/21 12:50
Date Received: 05/03/21 17:33

Lab Sample ID: 410-38134-8

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.54	0.11	ug/L		05/07/21 09:56	05/10/21 22:48	1
Benzo[a]anthracene	ND		0.54	0.11	ug/L		05/07/21 09:56	05/10/21 22:48	1
Benzo[a]pyrene	ND		0.54	0.12	ug/L		05/07/21 09:56	05/10/21 22:48	1
Benzo[b]fluoranthene	ND		0.54	0.11	ug/L		05/07/21 09:56	05/10/21 22:48	1
Benzo[g,h,i]perylene	ND		0.54	0.11	ug/L		05/07/21 09:56	05/10/21 22:48	1
Chrysene	ND		0.54	0.11	ug/L		05/07/21 09:56	05/10/21 22:48	1
Fluorene	ND		0.54	0.13	ug/L		05/07/21 09:56	05/10/21 22:48	1
Naphthalene	ND		0.54	0.11	ug/L		05/07/21 09:56	05/10/21 22:48	1
Phenanthrene	ND		0.54	0.12	ug/L		05/07/21 09:56	05/10/21 22:48	1
Pyrene	ND		0.54	0.11	ug/L		05/07/21 09:56	05/10/21 22:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*71*		*44 - 102*	*05/07/21 09:56*	*05/10/21 22:48*	*1*
Nitrobenzene-d5 (Surr)	*68*		*23 - 128*	*05/07/21 09:56*	*05/10/21 22:48*	*1*
p-Terphenyl-d14 (Surr)	*72*		*31 - 113*	*05/07/21 09:56*	*05/10/21 22:48*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/04/21 12:39	05/04/21 20:45	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/04/21 12:39	05/04/21 20:45	1
Methane (1C)	**27**		5.0	3.0	ug/L		05/04/21 12:39	05/04/21 20:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*85*		*28 - 140*	*05/04/21 12:39*	*05/04/21 20:45*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0096	ug/L		05/05/21 19:45	05/06/21 12:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*105*		*46 - 136*	*05/05/21 19:45*	*05/06/21 12:48*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*101*		*46 - 136*	*05/05/21 19:45*	*05/06/21 12:48*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**22000**		5000	1500	ug/L			05/05/21 17:42	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**47000**		500	96	ug/L		05/05/21 01:31	05/05/21 14:45	1
Iron	**1100**		200	40	ug/L		05/05/21 01:31	05/05/21 14:45	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/05/21 21:47	05/06/21 13:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**300000**		8000	8000	ug/L			05/05/21 03:08	1
Total Kjeldahl Nitrogen	**1400**		1000	500	ug/L		05/05/21 07:15	05/05/21 13:56	1
Total Carbon	**72000**		5000	2500	ug/L			05/06/21 04:48	5
Total Organic Carbon	**5100**		1000	500	ug/L			05/09/21 02:21	1

Client Sample ID: S-218D_20210430

Lab Sample ID: 410-38134-8

Date Collected: 04/30/21 12:50

Matrix: Water

Date Received: 05/03/21 17:33

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Inorganic Carbon	**67000**		2000	600	ug/L			05/10/21 15:13	1

Client Sample ID: S-38D2_20210430

Lab Sample ID: 410-38134-9

Date Collected: 04/30/21 13:50

Matrix: Water

Date Received: 05/03/21 17:33

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/05/21 17:10	1
1,2-Dichloroethane	**1.3**		1.0	0.30	ug/L			05/05/21 17:10	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/05/21 17:10	1
Benzene	ND		1.0	0.20	ug/L			05/05/21 17:10	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/05/21 17:10	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/05/21 17:10	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/05/21 17:10	1
t-Butyl alcohol	ND		50	12	ug/L			05/05/21 17:10	1
Toluene	ND		1.0	0.20	ug/L			05/05/21 17:10	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/05/21 17:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*80 - 120*		*05/05/21 17:10*	*1*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*		*05/05/21 17:10*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*05/05/21 17:10*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/05/21 17:10*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.60	0.12	ug/L		05/07/21 09:58	05/12/21 00:55	1
Benzo[a]anthracene	ND		0.60	0.12	ug/L		05/07/21 09:58	05/12/21 00:55	1
Benzo[a]pyrene	ND		0.60	0.13	ug/L		05/07/21 09:58	05/12/21 00:55	1
Benzo[b]fluoranthene	ND		0.60	0.12	ug/L		05/07/21 09:58	05/12/21 00:55	1
Benzo[g,h,i]perylene	ND		0.60	0.12	ug/L		05/07/21 09:58	05/12/21 00:55	1
Chrysene	ND		0.60	0.12	ug/L		05/07/21 09:58	05/12/21 00:55	1
Fluorene	ND		0.60	0.14	ug/L		05/07/21 09:58	05/12/21 00:55	1
Naphthalene	ND		0.60	0.12	ug/L		05/07/21 09:58	05/12/21 00:55	1
Phenanthrene	**0.17**	**J**	0.60	0.13	ug/L		05/07/21 09:58	05/12/21 00:55	1
Pyrene	ND		0.60	0.12	ug/L		05/07/21 09:58	05/12/21 00:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*57*		*44 - 102*	*05/07/21 09:58*	*05/12/21 00:55*	*1*
Nitrobenzene-d5 (Surr)	*61*		*23 - 128*	*05/07/21 09:58*	*05/12/21 00:55*	*1*
p-Terphenyl-d14 (Surr)	*58*		*31 - 113*	*05/07/21 09:58*	*05/12/21 00:55*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/04/21 12:39	05/04/21 21:04	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/04/21 12:39	05/04/21 21:04	1
Methane (1C)	**220**		5.0	3.0	ug/L		05/04/21 12:39	05/04/21 21:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*87*		*28 - 140*	*05/04/21 12:39*	*05/04/21 21:04*	*1*

Client Sample ID: S-38D2_20210430
Date Collected: 04/30/21 13:50
Date Received: 05/03/21 17:33

Lab Sample ID: 410-38134-9
Matrix: Water

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0097	ug/L		05/05/21 19:45	05/06/21 13:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*98*		*46 - 136*	*05/05/21 19:45*	*05/06/21 13:05*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*101*		*46 - 136*	*05/05/21 19:45*	*05/06/21 13:05*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	32000		5000	1500	ug/L			05/05/21 18:55	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	46000		500	96	ug/L		05/05/21 01:31	05/05/21 14:49	1
Iron	17000		200	40	ug/L		05/05/21 01:31	05/05/21 14:49	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.18	J	0.52	0.073	ug/L		05/05/21 21:47	05/06/21 13:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	240000		8000	8000	ug/L			05/05/21 03:01	1
Total Kjeldahl Nitrogen	1500		1000	500	ug/L		05/05/21 07:15	05/05/21 13:58	1
Total Carbon	51000		5000	2500	ug/L			05/06/21 04:59	5
Total Organic Carbon	1800		1000	500	ug/L			05/09/21 03:04	1
Total Inorganic Carbon	49000		2000	600	ug/L			05/10/21 15:13	1

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38134-1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-38134-1	TB_20210503	93	103	94	105
410-38134-2	FB_20210503	98	103	97	106
410-38134-3	S-425_20210430	98	106	97	102
410-38134-4	A-182_20210430	95	102	98	103
410-38134-5	A-4_20210430	96	101	98	100
410-38134-6	C-144D_20210430	91	99	92	102
410-38134-7	C-134D_20210430	95	102	96	106
410-38134-8	S-218D_20210430	97	106	100	106
410-38134-9	S-38D2_20210430	94	106	96	102
LCS 410-122616/5	Lab Control Sample	101	108	96	106
LCSD 410-122616/6	Lab Control Sample Dup	103	109	98	106
MB 410-122616/9	Method Blank	98	104	101	105

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(44-102)	(23-128)	(31-113)
410-38134-2	FB_20210503	75	82	87
410-38134-3	S-425_20210430	74	72	48
410-38134-4	A-182_20210430	77	75	85
410-38134-5	A-4_20210430	76	79	86
410-38134-6	C-144D_20210430	75	73	75
410-38134-7	C-134D_20210430	73	71	68
410-38134-8	S-218D_20210430	71	68	72
410-38134-9	S-38D2_20210430	57	61	58
LCS 410-123574/2-A	Lab Control Sample	74	69	93
LCS 410-123580/2-A	Lab Control Sample	69	80	92
LCS 410-124523/2-A	Lab Control Sample	84	82	87
LCSD 410-123574/3-A	Lab Control Sample Dup	84	78	92
MB 410-123574/1-A	Method Blank	76	73	100
MB 410-123580/1-A	Method Blank	55	80	96
MB 410-124523/1-A	Method Blank	74	85	94

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Surrogate Summary

Client: Stantec Consulting Corp. Job ID: 410-38134-1
Project/Site: Former PES Annual GWS

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)								
		Propene1								
Lab Sample ID	Client Sample ID	(28-140)								
410-38134-2	FB_20210503	100								
410-38134-3	S-425_20210430	90								
410-38134-4	A-182_20210430	92								
410-38134-5	A-4_20210430	95								
410-38134-6	C-144D_20210430	94								
410-38134-6 - DL	C-144D_20210430	97								
410-38134-7	C-134D_20210430	82								
410-38134-7 - DL	C-134D_20210430	96								
410-38134-8	S-218D_20210430	85								
410-38134-9	S-38D2_20210430	87								
LCS 410-122114/2-A	Lab Control Sample	107								
LCS 410-122572/2-A	Lab Control Sample	102								
LCSD 410-122572/3-A	Lab Control Sample Dup	101								
MB 410-122114/1-A	Method Blank	106								
MB 410-122572/1-A	Method Blank	105								

Surrogate Legend

Propene = Propene

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)								
		1122TCA1	1122TCA2							
Lab Sample ID	Client Sample ID	(46-136)	(46-136)							
410-38134-2	FB_20210503	102	101							
410-38134-3	S-425_20210430	99	96							
410-38134-4	A-182_20210430	107	103							
410-38134-5	A-4_20210430	109	105							
410-38134-6	C-144D_20210430	111	101							
410-38134-7	C-134D_20210430	109	104							
410-38134-8	S-218D_20210430	105	101							
410-38134-9	S-38D2_20210430	98	101							
LCS 410-122942/2-A	Lab Control Sample	94	97							
LCSD 410-122942/3-A	Lab Control Sample Dup	98	107							
MB 410-122942/1-A	Method Blank	93	91							

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38134-1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-122616/9
Matrix: Water
Analysis Batch: 122616

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/05/21 12:21	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/05/21 12:21	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/05/21 12:21	1
Benzene	ND		1.0	0.20	ug/L			05/05/21 12:21	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/05/21 12:21	1
Ethylene Dibromide	ND		1.0	0.20	ug/L			05/05/21 12:21	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/05/21 12:21	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/05/21 12:21	1
Naphthalene	ND		5.0	1.0	ug/L			05/05/21 12:21	1
t-Butyl alcohol	ND		50	12	ug/L			05/05/21 12:21	1
Toluene	ND		1.0	0.20	ug/L			05/05/21 12:21	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/05/21 12:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 120*		*05/05/21 12:21*	*1*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*05/05/21 12:21*	*1*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*05/05/21 12:21*	*1*
Toluene-d8 (Surr)	*105*		*80 - 120*		*05/05/21 12:21*	*1*

Lab Sample ID: LCS 410-122616/5
Matrix: Water
Analysis Batch: 122616

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	20.0	19.8		ug/L		99	75 - 120
1,2-Dichloroethane	20.0	17.4		ug/L		87	73 - 124
1,3,5-Trimethylbenzene	20.0	19.7		ug/L		99	75 - 120
Benzene	20.0	20.6		ug/L		103	80 - 120
Ethylbenzene	20.0	20.7		ug/L		103	80 - 120
Ethylene Dibromide	20.0	19.4		ug/L		97	77 - 120
Isopropylbenzene	20.0	19.2		ug/L		96	80 - 120
Methyl tert-butyl ether	20.0	18.7		ug/L		93	69 - 122
Naphthalene	20.0	15.2		ug/L		76	53 - 124
t-Butyl alcohol	200	192		ug/L		96	60 - 130
Toluene	20.0	20.7		ug/L		104	80 - 120
Xylenes, Total	60.0	58.5		ug/L		98	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*
4-Bromofluorobenzene (Surr)	*108*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*80 - 120*
Toluene-d8 (Surr)	*106*		*80 - 120*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-122616/6
Matrix: Water
Analysis Batch: 122616

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene			20.0	17.1		ug/L		86	75 - 120	15	30
1,2-Dichloroethane			20.0	16.1		ug/L		80	73 - 124	8	30
1,3,5-Trimethylbenzene			20.0	17.2		ug/L		86	75 - 120	14	30
Benzene			20.0	18.6		ug/L		93	80 - 120	10	30
Ethylbenzene			20.0	18.1		ug/L		90	80 - 120	14	30
Ethylene Dibromide			20.0	17.0		ug/L		85	77 - 120	13	30
Isopropylbenzene			20.0	16.9		ug/L		84	80 - 120	13	30
Methyl tert-butyl ether			20.0	17.0		ug/L		85	69 - 122	10	30
Naphthalene			20.0	13.9		ug/L		69	53 - 124	9	30
t-Butyl alcohol			200	170		ug/L		85	60 - 130	12	30
Toluene			20.0	18.3		ug/L		92	80 - 120	12	30
Xylenes, Total			60.0	51.8		ug/L		86	80 - 120	12	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*80 - 120*
4-Bromofluorobenzene (Surr)	*109*		*80 - 120*
Dibromofluoromethane (Surr)	*98*		*80 - 120*
Toluene-d8 (Surr)	*106*		*80 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-123574/1-A
Matrix: Water
Analysis Batch: 124139

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 123574

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/07/21 09:56	05/09/21 20:26	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/07/21 09:56	05/09/21 20:26	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/07/21 09:56	05/09/21 20:26	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/07/21 09:56	05/09/21 20:26	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/07/21 09:56	05/09/21 20:26	1
Chrysene	ND		0.50	0.10	ug/L		05/07/21 09:56	05/09/21 20:26	1
Fluorene	ND		0.50	0.12	ug/L		05/07/21 09:56	05/09/21 20:26	1
Naphthalene	ND		0.50	0.10	ug/L		05/07/21 09:56	05/09/21 20:26	1
Phenanthrene	ND		0.50	0.11	ug/L		05/07/21 09:56	05/09/21 20:26	1
Pyrene	ND		0.50	0.10	ug/L		05/07/21 09:56	05/09/21 20:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*76*		*44 - 102*	*05/07/21 09:56*	*05/09/21 20:26*	*1*
Nitrobenzene-d5 (Surr)	*73*		*23 - 128*	*05/07/21 09:56*	*05/09/21 20:26*	*1*
p-Terphenyl-d14 (Surr)	*100*		*31 - 113*	*05/07/21 09:56*	*05/09/21 20:26*	*1*

Lab Sample ID: LCS 410-123574/2-A
Matrix: Water
Analysis Batch: 124139

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 123574

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Anthracene			50.0	47.7		ug/L		95	61 - 117		

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-123574/2-A
Matrix: Water
Analysis Batch: 124139

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 123574

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzo[a]anthracene			50.0	55.2		ug/L		110	61 - 126		
Benzo[a]pyrene			50.0	50.2		ug/L		100	60 - 116		
Benzo[b]fluoranthene			50.0	47.9		ug/L		96	61 - 119		
Benzo[g,h,i]perylene			50.0	56.6		ug/L		113	54 - 120		
Chrysene			50.0	55.2		ug/L		110	65 - 121		
Fluorene			50.0	46.9		ug/L		94	56 - 115		
Naphthalene			50.0	39.7		ug/L		79	51 - 102		
Phenanthrene			50.0	47.9		ug/L		96	65 - 113		
Pyrene			50.0	49.8		ug/L		100	65 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*74*		*44 - 102*
Nitrobenzene-d5 (Surr)	*69*		*23 - 128*
p-Terphenyl-d14 (Surr)	*93*		*31 - 113*

Lab Sample ID: LCSD 410-123574/3-A
Matrix: Water
Analysis Batch: 124139

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 123574

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Anthracene			50.0	52.7		ug/L		105	61 - 117	10	30
Benzo[a]anthracene			50.0	57.9		ug/L		116	61 - 126	5	30
Benzo[a]pyrene			50.0	52.1		ug/L		104	60 - 116	4	30
Benzo[b]fluoranthene			50.0	50.7		ug/L		101	61 - 119	6	30
Benzo[g,h,i]perylene			50.0	58.0		ug/L		116	54 - 120	2	30
Chrysene			50.0	58.6		ug/L		117	65 - 121	6	30
Fluorene			50.0	51.5		ug/L		103	56 - 115	9	30
Naphthalene			50.0	43.7		ug/L		87	51 - 102	10	30
Phenanthrene			50.0	50.7		ug/L		101	65 - 113	6	30
Pyrene			50.0	52.4		ug/L		105	65 - 115	5	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*84*		*44 - 102*
Nitrobenzene-d5 (Surr)	*78*		*23 - 128*
p-Terphenyl-d14 (Surr)	*92*		*31 - 113*

Lab Sample ID: MB 410-123580/1-A
Matrix: Water
Analysis Batch: 124654

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 123580

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/07/21 09:58	05/11/21 00:28	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/07/21 09:58	05/11/21 00:28	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/07/21 09:58	05/11/21 00:28	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/07/21 09:58	05/11/21 00:28	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/07/21 09:58	05/11/21 00:28	1
Chrysene	ND		0.50	0.10	ug/L		05/07/21 09:58	05/11/21 00:28	1
Fluorene	ND		0.50	0.12	ug/L		05/07/21 09:58	05/11/21 00:28	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-123580/1-A
Matrix: Water
Analysis Batch: 124654

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 123580

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.50	0.10	ug/L		05/07/21 09:58	05/11/21 00:28	1
Phenanthrene	ND		0.50	0.11	ug/L		05/07/21 09:58	05/11/21 00:28	1
Pyrene	ND		0.50	0.10	ug/L		05/07/21 09:58	05/11/21 00:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*55*		*44 - 102*	*05/07/21 09:58*	*05/11/21 00:28*	*1*
Nitrobenzene-d5 (Surr)	*80*		*23 - 128*	*05/07/21 09:58*	*05/11/21 00:28*	*1*
p-Terphenyl-d14 (Surr)	*96*		*31 - 113*	*05/07/21 09:58*	*05/11/21 00:28*	*1*

Lab Sample ID: LCS 410-123580/2-A
Matrix: Water
Analysis Batch: 124654

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 123580

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.0	49.8		ug/L		100	61 - 117
Benzo[a]anthracene	50.0	55.5		ug/L		111	61 - 126
Benzo[a]pyrene	50.0	57.9		ug/L		116	60 - 116
Benzo[b]fluoranthene	50.0	50.8		ug/L		102	61 - 119
Benzo[g,h,i]perylene	50.0	41.0		ug/L		82	54 - 120
Chrysene	50.0	56.6		ug/L		113	65 - 121
Fluorene	50.0	48.3		ug/L		97	56 - 115
Naphthalene	50.0	37.4		ug/L		75	51 - 102
Phenanthrene	50.0	48.8		ug/L		98	65 - 113
Pyrene	50.0	51.6		ug/L		103	65 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*69*		*44 - 102*
Nitrobenzene-d5 (Surr)	*80*		*23 - 128*
p-Terphenyl-d14 (Surr)	*92*		*31 - 113*

Lab Sample ID: MB 410-124523/1-A
Matrix: Water
Analysis Batch: 124834

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 124523

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/10/21 15:52	05/11/21 10:37	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/10/21 15:52	05/11/21 10:37	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/10/21 15:52	05/11/21 10:37	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/10/21 15:52	05/11/21 10:37	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/10/21 15:52	05/11/21 10:37	1
Chrysene	ND		0.50	0.10	ug/L		05/10/21 15:52	05/11/21 10:37	1
Fluorene	ND		0.50	0.12	ug/L		05/10/21 15:52	05/11/21 10:37	1
Naphthalene	ND		0.50	0.10	ug/L		05/10/21 15:52	05/11/21 10:37	1
Phenanthrene	ND		0.50	0.11	ug/L		05/10/21 15:52	05/11/21 10:37	1
Pyrene	ND		0.50	0.10	ug/L		05/10/21 15:52	05/11/21 10:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*74*		*44 - 102*	*05/10/21 15:52*	*05/11/21 10:37*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-124523/1-A
Matrix: Water
Analysis Batch: 124834

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 124523

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	85		23 - 128	05/10/21 15:52	05/11/21 10:37	1
p-Terphenyl-d14 (Surr)	94		31 - 113	05/10/21 15:52	05/11/21 10:37	1

Lab Sample ID: LCS 410-124523/2-A
Matrix: Water
Analysis Batch: 124834

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 124523

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.0	51.1		ug/L		102	61 - 117
Benzo[a]anthracene	50.0	51.9		ug/L		104	61 - 126
Benzo[a]pyrene	50.0	62.8	*+	ug/L		126	60 - 116
Benzo[b]fluoranthene	50.0	52.1		ug/L		104	61 - 119
Benzo[g,h,i]perylene	50.0	43.6		ug/L		87	54 - 120
Chrysene	50.0	52.5		ug/L		105	65 - 121
Fluorene	50.0	51.4		ug/L		103	56 - 115
Naphthalene	50.0	46.3		ug/L		93	51 - 102
Phenanthrene	50.0	49.2		ug/L		98	65 - 113
Pyrene	50.0	52.6		ug/L		105	65 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	84		44 - 102
Nitrobenzene-d5 (Surr)	82		23 - 128
p-Terphenyl-d14 (Surr)	87		31 - 113

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-122114/1-A
Matrix: Water
Analysis Batch: 122076

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 122114

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/04/21 12:39	05/04/21 15:25	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/04/21 12:39	05/04/21 15:25	1
Methane (1C)	ND		5.0	3.0	ug/L		05/04/21 12:39	05/04/21 15:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Propene (1C)	106		28 - 140	05/04/21 12:39	05/04/21 15:25	1

Lab Sample ID: LCS 410-122114/2-A
Matrix: Water
Analysis Batch: 122076

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 122114

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethane (1C)	59.4	61.2		ug/L		103	85 - 115
Ethene (1C)	60.4	62.9		ug/L		104	83 - 115
Methane (1C)	59.4	62.4		ug/L		105	85 - 115

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCS 410-122114/2-A
Matrix: Water
Analysis Batch: 122076

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 122114

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Propene (1C)	107		28 - 140

Lab Sample ID: MB 410-122572/1-A
Matrix: Water
Analysis Batch: 123090

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 122572

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/06/21 07:40	05/06/21 07:59	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/06/21 07:40	05/06/21 07:59	1
Methane (1C)	ND		5.0	3.0	ug/L		05/06/21 07:40	05/06/21 07:59	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Propene (1C)	105		28 - 140	05/06/21 07:40	05/06/21 07:59	1

Lab Sample ID: LCS 410-122572/2-A
Matrix: Water
Analysis Batch: 123090

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 122572

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	61.8		ug/L		104	85 - 115		
Ethene (1C)			60.4	62.2		ug/L		103	83 - 115		
Methane (1C)			59.4	62.8		ug/L		106	85 - 115		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Propene (1C)	102		28 - 140

Lab Sample ID: LCSD 410-122572/3-A
Matrix: Water
Analysis Batch: 123090

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 122572

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	61.3		ug/L		103	85 - 115	1	20
Ethene (1C)			60.4	61.8		ug/L		102	83 - 115	1	20
Methane (1C)			59.4	63.1		ug/L		106	85 - 115	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Propene (1C)	101		28 - 140

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-122942/1-A
Matrix: Water
Analysis Batch: 123056

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 122942

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		05/05/21 19:45	05/06/21 06:52	1

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: MB 410-122942/1-A
Matrix: Water
Analysis Batch: 123056

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 122942

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane (Surr) (1C)	93		46 - 136	05/05/21 19:45	05/06/21 06:52	1
1,1,2,2-Tetrachloroethane (Surr) (2C)	91		46 - 136	05/05/21 19:45	05/06/21 06:52	1

Lab Sample ID: LCS 410-122942/2-A
Matrix: Water
Analysis Batch: 123578

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 122942

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.123		ug/L		96	60 - 140		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,1,2,2-Tetrachloroethane (Surr) (1C)	94		46 - 136
1,1,2,2-Tetrachloroethane (Surr) (2C)	97		46 - 136

Lab Sample ID: LCSD 410-122942/3-A
Matrix: Water
Analysis Batch: 123578

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 122942

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.141		ug/L		110	60 - 140	14	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,1,2,2-Tetrachloroethane (Surr) (1C)	98		46 - 136
1,1,2,2-Tetrachloroethane (Surr) (2C)	107		46 - 136

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 410-122544/4
Matrix: Water
Analysis Batch: 122544

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1000	300	ug/L			05/05/21 04:48	1

Lab Sample ID: LCS 410-122544/3
Matrix: Water
Analysis Batch: 122544

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			7500	7310		ug/L		97	90 - 110		

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 410-122855/4
Matrix: Water
Analysis Batch: 122855

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1000	300	ug/L			05/05/21 13:03	1

Lab Sample ID: LCS 410-122855/3
Matrix: Water
Analysis Batch: 122855

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			7500	6800		ug/L		91	90 - 110		

Lab Sample ID: 410-38134-6 MS
Matrix: Water
Analysis Batch: 122855

Client Sample ID: C-144D_20210430
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	22000		25000	48900		ug/L		108	90 - 110		

Lab Sample ID: 410-38134-6 DU
Matrix: Water
Analysis Batch: 122855

Client Sample ID: C-144D_20210430
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfate	22000			22000		ug/L				0	15

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-122491/1-A
Matrix: Water
Analysis Batch: 122852

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 122491

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		500	96	ug/L		05/05/21 01:31	05/05/21 13:52	1
Iron	ND		200	40	ug/L		05/05/21 01:31	05/05/21 13:52	1

Lab Sample ID: LCS 410-122491/2-A
Matrix: Water
Analysis Batch: 122852

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 122491

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Calcium			400	435	J	ug/L		109	80 - 120		
Iron			400	414		ug/L		103	80 - 120		

Lab Sample ID: 410-38134-6 MS
Matrix: Water
Analysis Batch: 122852

Client Sample ID: C-144D_20210430
Prep Type: Total Recoverable
Prep Batch: 122491

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Calcium	45000		400	46300	4	ug/L		275	75 - 125		
Iron	32000		400	33400	4	ug/L		234	75 - 125		

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 410-38134-6 MSD
Matrix: Water
Analysis Batch: 122852

Client Sample ID: C-144D_20210430
Prep Type: Total Recoverable
Prep Batch: 122491

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	45000		400	44500	4	ug/L		-195	75 - 125	4	20
Iron	32000		400	31900	4	ug/L		-137	75 - 125	5	20

Lab Sample ID: 410-38134-6 DU
Matrix: Water
Analysis Batch: 122852

Client Sample ID: C-144D_20210430
Prep Type: Total Recoverable
Prep Batch: 122491

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Calcium	45000		44100		ug/L		3	20
Iron	32000		31800		ug/L		2	20

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 410-122817/53
Matrix: Water
Analysis Batch: 122817

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8000	8000	ug/L			05/05/21 00:00	1

Lab Sample ID: MB 410-122817/84
Matrix: Water
Analysis Batch: 122817

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8000	8000	ug/L			05/05/21 03:14	1

Lab Sample ID: LCS 410-122817/54
Matrix: Water
Analysis Batch: 122817

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	189000	184000		ug/L		97	82 - 106

Lab Sample ID: LCS 410-122817/85
Matrix: Water
Analysis Batch: 122817

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	189000	184000		ug/L		98	82 - 106

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 410-122642/2-A
Matrix: Water
Analysis Batch: 122853

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 122642

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		1000	500	ug/L		05/05/21 07:15	05/05/21 12:49	1

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 410-122642/2-A
Matrix: Water
Analysis Batch: 122853

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 122642

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		1000	500	ug/L		05/05/21 07:15	05/05/21 14:17	1

Lab Sample ID: LCS 410-122642/1-A
Matrix: Water
Analysis Batch: 122853

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 122642

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	4000	4080		ug/L		102	90 - 110

Lab Sample ID: LCS 410-122642/1-A
Matrix: Water
Analysis Batch: 122853

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 122642

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	4000	4080		ug/L		102	90 - 110

Lab Sample ID: MB 410-123722/2-A
Matrix: Water
Analysis Batch: 124971

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 123722

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		1000	500	ug/L		05/07/21 10:26	05/10/21 14:44	1

Lab Sample ID: LCS 410-123722/1-A
Matrix: Water
Analysis Batch: 124971

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 123722

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	4000	4280		ug/L		107	90 - 110

Lab Sample ID: LCSD 410-123722/15-A
Matrix: Water
Analysis Batch: 125533

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 123722

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Kjeldahl Nitrogen	4000	4690	*+	ug/L		117	90 - 110	9	20

Lab Sample ID: LCSD 410-123722/15-A
Matrix: Water
Analysis Batch: 125533

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 123722

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Kjeldahl Nitrogen	4000	4490	*+	ug/L		112	90 - 110	5	20

Lab Sample ID: LCSD 410-123722/15-A
Matrix: Water
Analysis Batch: 125533

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 123722

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Kjeldahl Nitrogen	4000	4610	*+	ug/L		115	90 - 110	8	20

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: 410-38134-6 MS
Matrix: Water
Analysis Batch: 124971

Client Sample ID: C-144D_20210430
Prep Type: Total/NA
Prep Batch: 123722

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	3600		5000	9000		ug/L		109	90 - 110

Lab Sample ID: 410-38134-6 DU
Matrix: Water
Analysis Batch: 124971

Client Sample ID: C-144D_20210430
Prep Type: Total/NA
Prep Batch: 123722

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Kjeldahl Nitrogen	3600		3570		ug/L		0.1	20

Method: 5310 B-2011 - Carbon, Total and Total Inorganic

Lab Sample ID: MB 410-123209/5
Matrix: Water
Analysis Batch: 123209

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Carbon	ND		1000	500	ug/L			05/05/21 18:43	1

Lab Sample ID: LCS 410-123209/36
Matrix: Water
Analysis Batch: 123209

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Carbon	25000	25900		ug/L		104	91 - 115

Lab Sample ID: LCS 410-123209/4
Matrix: Water
Analysis Batch: 123209

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Carbon	25000	25000		ug/L		100	91 - 115

Lab Sample ID: 410-38134-3 MS
Matrix: Water
Analysis Batch: 123209

Client Sample ID: S-425_20210430
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Carbon	32000		50000	86000		ug/L		108	91 - 115

Lab Sample ID: 410-38134-3 DU
Matrix: Water
Analysis Batch: 123209

Client Sample ID: S-425_20210430
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Carbon	32000		34100		ug/L		6	20

Method: 5310 B-2011 - Carbon, Total and Total Inorganic (Continued)

Lab Sample ID: MB 410-123355/4
Matrix: Water
Analysis Batch: 123355

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Carbon	ND		1000	500	ug/L			05/06/21 12:04	1

Method: 5310C-2011 - Total Organic Carbon/Persulfate - Ultrav

Lab Sample ID: MB 410-124437/39
Matrix: Water
Analysis Batch: 124437

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	500	ug/L			05/09/21 02:06	1

Lab Sample ID: MB 410-124437/5
Matrix: Water
Analysis Batch: 124437

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	500	ug/L			05/08/21 17:41	1

Lab Sample ID: LCS 410-124437/36
Matrix: Water
Analysis Batch: 124437

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	25000	24800		ug/L		99	91 - 113

Lab Sample ID: LCS 410-124437/4
Matrix: Water
Analysis Batch: 124437

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	25000	24700		ug/L		99	91 - 113

Lab Sample ID: 410-38134-8 MS
Matrix: Water
Analysis Batch: 124437

Client Sample ID: S-218D_20210430
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	5100		10000	14700		ug/L		96	91 - 113

Lab Sample ID: 410-38134-8 DU
Matrix: Water
Analysis Batch: 124437

Client Sample ID: S-218D_20210430
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon	5100		5130		ug/L		0.6	3

GC/MS VOA

Analysis Batch: 122616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38134-1	TB_20210503	Total/NA	Water	8260C/UST	
410-38134-2	FB_20210503	Total/NA	Water	8260C/UST	
410-38134-3	S-425_20210430	Total/NA	Water	8260C/UST	
410-38134-4	A-182_20210430	Total/NA	Water	8260C/UST	
410-38134-5	A-4_20210430	Total/NA	Water	8260C/UST	
410-38134-6	C-144D_20210430	Total/NA	Water	8260C/UST	
410-38134-7	C-134D_20210430	Total/NA	Water	8260C/UST	
410-38134-8	S-218D_20210430	Total/NA	Water	8260C/UST	
410-38134-9	S-38D2_20210430	Total/NA	Water	8260C/UST	
MB 410-122616/9	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-122616/5	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-122616/6	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

GC/MS Semi VOA

Prep Batch: 123574

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38134-3	S-425_20210430	Total/NA	Water	3510C	
410-38134-4	A-182_20210430	Total/NA	Water	3510C	
410-38134-5	A-4_20210430	Total/NA	Water	3510C	
410-38134-6	C-144D_20210430	Total/NA	Water	3510C	
410-38134-7	C-134D_20210430	Total/NA	Water	3510C	
410-38134-8	S-218D_20210430	Total/NA	Water	3510C	
MB 410-123574/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-123574/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-123574/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 123580

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38134-9	S-38D2_20210430	Total/NA	Water	3510C	
MB 410-123580/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-123580/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 124139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38134-3	S-425_20210430	Total/NA	Water	8270D	123574
410-38134-4	A-182_20210430	Total/NA	Water	8270D	123574
410-38134-5	A-4_20210430	Total/NA	Water	8270D	123574
MB 410-123574/1-A	Method Blank	Total/NA	Water	8270D	123574
LCS 410-123574/2-A	Lab Control Sample	Total/NA	Water	8270D	123574
LCSD 410-123574/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	123574

Prep Batch: 124523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38134-2	FB_20210503	Total/NA	Water	3510C	
MB 410-124523/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-124523/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 124548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38134-6	C-144D_20210430	Total/NA	Water	8270D	123574

GC/MS Semi VOA (Continued)

Analysis Batch: 124548 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38134-7	C-134D_20210430	Total/NA	Water	8270D	123574
410-38134-8	S-218D_20210430	Total/NA	Water	8270D	123574

Analysis Batch: 124654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-123580/1-A	Method Blank	Total/NA	Water	8270D	123580
LCS 410-123580/2-A	Lab Control Sample	Total/NA	Water	8270D	123580

Analysis Batch: 124834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38134-2	FB_20210503	Total/NA	Water	8270D	124523
MB 410-124523/1-A	Method Blank	Total/NA	Water	8270D	124523
LCS 410-124523/2-A	Lab Control Sample	Total/NA	Water	8270D	124523

Analysis Batch: 125078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38134-9	S-38D2_20210430	Total/NA	Water	8270D	123580

GC VOA

Analysis Batch: 122076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38134-2	FB_20210503	Total/NA	Water	RSK-175	122114
410-38134-3	S-425_20210430	Total/NA	Water	RSK-175	122114
410-38134-4	A-182_20210430	Total/NA	Water	RSK-175	122114
410-38134-5	A-4_20210430	Total/NA	Water	RSK-175	122114
410-38134-6	C-144D_20210430	Total/NA	Water	RSK-175	122114
410-38134-7	C-134D_20210430	Total/NA	Water	RSK-175	122114
410-38134-8	S-218D_20210430	Total/NA	Water	RSK-175	122114
410-38134-9	S-38D2_20210430	Total/NA	Water	RSK-175	122114
MB 410-122114/1-A	Method Blank	Total/NA	Water	RSK-175	122114
LCS 410-122114/2-A	Lab Control Sample	Total/NA	Water	RSK-175	122114

Prep Batch: 122114

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38134-2	FB_20210503	Total/NA	Water	RSK-175	
410-38134-3	S-425_20210430	Total/NA	Water	RSK-175	
410-38134-4	A-182_20210430	Total/NA	Water	RSK-175	
410-38134-5	A-4_20210430	Total/NA	Water	RSK-175	
410-38134-6	C-144D_20210430	Total/NA	Water	RSK-175	
410-38134-7	C-134D_20210430	Total/NA	Water	RSK-175	
410-38134-8	S-218D_20210430	Total/NA	Water	RSK-175	
410-38134-9	S-38D2_20210430	Total/NA	Water	RSK-175	
MB 410-122114/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-122114/2-A	Lab Control Sample	Total/NA	Water	RSK-175	

Prep Batch: 122572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38134-6 - DL	C-144D_20210430	Total/NA	Water	RSK-175	
410-38134-7 - DL	C-134D_20210430	Total/NA	Water	RSK-175	
MB 410-122572/1-A	Method Blank	Total/NA	Water	RSK-175	

GC VOA (Continued)

Prep Batch: 122572 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-122572/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-122572/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 123090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38134-6 - DL	C-144D_20210430	Total/NA	Water	RSK-175	122572
410-38134-7 - DL	C-134D_20210430	Total/NA	Water	RSK-175	122572
MB 410-122572/1-A	Method Blank	Total/NA	Water	RSK-175	122572
LCS 410-122572/2-A	Lab Control Sample	Total/NA	Water	RSK-175	122572
LCSD 410-122572/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	122572

GC Semi VOA

Prep Batch: 122942

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38134-2	FB_20210503	Total/NA	Water	8011	
410-38134-3	S-425_20210430	Total/NA	Water	8011	
410-38134-4	A-182_20210430	Total/NA	Water	8011	
410-38134-5	A-4_20210430	Total/NA	Water	8011	
410-38134-6	C-144D_20210430	Total/NA	Water	8011	
410-38134-7	C-134D_20210430	Total/NA	Water	8011	
410-38134-8	S-218D_20210430	Total/NA	Water	8011	
410-38134-9	S-38D2_20210430	Total/NA	Water	8011	
MB 410-122942/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-122942/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-122942/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 123056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38134-2	FB_20210503	Total/NA	Water	8011	122942
410-38134-3	S-425_20210430	Total/NA	Water	8011	122942
410-38134-4	A-182_20210430	Total/NA	Water	8011	122942
410-38134-5	A-4_20210430	Total/NA	Water	8011	122942
410-38134-6	C-144D_20210430	Total/NA	Water	8011	122942
410-38134-7	C-134D_20210430	Total/NA	Water	8011	122942
410-38134-8	S-218D_20210430	Total/NA	Water	8011	122942
410-38134-9	S-38D2_20210430	Total/NA	Water	8011	122942
MB 410-122942/1-A	Method Blank	Total/NA	Water	8011	122942

Analysis Batch: 123578

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-122942/2-A	Lab Control Sample	Total/NA	Water	8011	122942
LCSD 410-122942/3-A	Lab Control Sample Dup	Total/NA	Water	8011	122942

HPLC/IC

Analysis Batch: 122544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38134-2	FB_20210503	Total/NA	Water	EPA 300.0 R2.1	
410-38134-3	S-425_20210430	Total/NA	Water	EPA 300.0 R2.1	
410-38134-4	A-182_20210430	Total/NA	Water	EPA 300.0 R2.1	
410-38134-5	A-4_20210430	Total/NA	Water	EPA 300.0 R2.1	

HPLC/IC (Continued)

Analysis Batch: 122544 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-122544/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-122544/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 122855

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38134-6	C-144D_20210430	Total/NA	Water	EPA 300.0 R2.1	
410-38134-7	C-134D_20210430	Total/NA	Water	EPA 300.0 R2.1	
410-38134-8	S-218D_20210430	Total/NA	Water	EPA 300.0 R2.1	
410-38134-9	S-38D2_20210430	Total/NA	Water	EPA 300.0 R2.1	
MB 410-122855/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-122855/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
410-38134-6 MS	C-144D_20210430	Total/NA	Water	EPA 300.0 R2.1	
410-38134-6 DU	C-144D_20210430	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 122491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38134-2	FB_20210503	Total Recoverable	Water	3005A	
410-38134-3	S-425_20210430	Total Recoverable	Water	3005A	
410-38134-4	A-182_20210430	Total Recoverable	Water	3005A	
410-38134-5	A-4_20210430	Total Recoverable	Water	3005A	
410-38134-6	C-144D_20210430	Total Recoverable	Water	3005A	
410-38134-7	C-134D_20210430	Total Recoverable	Water	3005A	
410-38134-8	S-218D_20210430	Total Recoverable	Water	3005A	
410-38134-9	S-38D2_20210430	Total Recoverable	Water	3005A	
MB 410-122491/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-122491/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
410-38134-6 MS	C-144D_20210430	Total Recoverable	Water	3005A	
410-38134-6 MSD	C-144D_20210430	Total Recoverable	Water	3005A	
410-38134-6 DU	C-144D_20210430	Total Recoverable	Water	3005A	

Analysis Batch: 122852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38134-2	FB_20210503	Total Recoverable	Water	6010C	122491
410-38134-3	S-425_20210430	Total Recoverable	Water	6010C	122491
410-38134-4	A-182_20210430	Total Recoverable	Water	6010C	122491
410-38134-5	A-4_20210430	Total Recoverable	Water	6010C	122491
410-38134-6	C-144D_20210430	Total Recoverable	Water	6010C	122491
410-38134-7	C-134D_20210430	Total Recoverable	Water	6010C	122491
410-38134-8	S-218D_20210430	Total Recoverable	Water	6010C	122491
410-38134-9	S-38D2_20210430	Total Recoverable	Water	6010C	122491
MB 410-122491/1-A	Method Blank	Total Recoverable	Water	6010C	122491
LCS 410-122491/2-A	Lab Control Sample	Total Recoverable	Water	6010C	122491
410-38134-6 MS	C-144D_20210430	Total Recoverable	Water	6010C	122491
410-38134-6 MSD	C-144D_20210430	Total Recoverable	Water	6010C	122491
410-38134-6 DU	C-144D_20210430	Total Recoverable	Water	6010C	122491

Prep Batch: 122984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38134-2	FB_20210503	Dissolved	Water	Non-Digest Prep	

Metals (Continued)

Prep Batch: 122984 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38134-3	S-425_20210430	Dissolved	Water	Non-Digest Prep	
410-38134-4	A-182_20210430	Dissolved	Water	Non-Digest Prep	
410-38134-5	A-4_20210430	Dissolved	Water	Non-Digest Prep	
410-38134-6	C-144D_20210430	Dissolved	Water	Non-Digest Prep	
410-38134-7	C-134D_20210430	Dissolved	Water	Non-Digest Prep	
410-38134-8	S-218D_20210430	Dissolved	Water	Non-Digest Prep	
410-38134-9	S-38D2_20210430	Dissolved	Water	Non-Digest Prep	

Analysis Batch: 123354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38134-2	FB_20210503	Dissolved	Water	6020A	122984
410-38134-3	S-425_20210430	Dissolved	Water	6020A	122984
410-38134-4	A-182_20210430	Dissolved	Water	6020A	122984
410-38134-5	A-4_20210430	Dissolved	Water	6020A	122984
410-38134-6	C-144D_20210430	Dissolved	Water	6020A	122984
410-38134-7	C-134D_20210430	Dissolved	Water	6020A	122984
410-38134-8	S-218D_20210430	Dissolved	Water	6020A	122984
410-38134-9	S-38D2_20210430	Dissolved	Water	6020A	122984

General Chemistry

Prep Batch: 122642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38134-3	S-425_20210430	Total/NA	Water	351.2	
410-38134-5	A-4_20210430	Total/NA	Water	351.2	
410-38134-7	C-134D_20210430	Total/NA	Water	351.2	
410-38134-8	S-218D_20210430	Total/NA	Water	351.2	
410-38134-9	S-38D2_20210430	Total/NA	Water	351.2	
MB 410-122642/2-A	Method Blank	Total/NA	Water	351.2	
LCS 410-122642/1-A	Lab Control Sample	Total/NA	Water	351.2	

Analysis Batch: 122817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38134-2	FB_20210503	Total/NA	Water	2320B-2011	
410-38134-3	S-425_20210430	Total/NA	Water	2320B-2011	
410-38134-4	A-182_20210430	Total/NA	Water	2320B-2011	
410-38134-5	A-4_20210430	Total/NA	Water	2320B-2011	
410-38134-6	C-144D_20210430	Total/NA	Water	2320B-2011	
410-38134-7	C-134D_20210430	Total/NA	Water	2320B-2011	
410-38134-8	S-218D_20210430	Total/NA	Water	2320B-2011	
410-38134-9	S-38D2_20210430	Total/NA	Water	2320B-2011	
MB 410-122817/53	Method Blank	Total/NA	Water	2320B-2011	
MB 410-122817/84	Method Blank	Total/NA	Water	2320B-2011	
LCS 410-122817/54	Lab Control Sample	Total/NA	Water	2320B-2011	
LCS 410-122817/85	Lab Control Sample	Total/NA	Water	2320B-2011	

Analysis Batch: 122853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38134-3	S-425_20210430	Total/NA	Water	351.2	122642
410-38134-5	A-4_20210430	Total/NA	Water	351.2	122642
410-38134-7	C-134D_20210430	Total/NA	Water	351.2	122642

General Chemistry (Continued)

Analysis Batch: 122853 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38134-8	S-218D_20210430	Total/NA	Water	351.2	122642
410-38134-9	S-38D2_20210430	Total/NA	Water	351.2	122642
MB 410-122642/2-A	Method Blank	Total/NA	Water	351.2	122642
MB 410-122642/2-A	Method Blank	Total/NA	Water	351.2	122642
LCS 410-122642/1-A	Lab Control Sample	Total/NA	Water	351.2	122642
LCS 410-122642/1-A	Lab Control Sample	Total/NA	Water	351.2	122642

Analysis Batch: 123209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38134-2	FB_20210503	Total/NA	Water	5310 B-2011	
410-38134-3	S-425_20210430	Total/NA	Water	5310 B-2011	
410-38134-4	A-182_20210430	Total/NA	Water	5310 B-2011	
410-38134-7	C-134D_20210430	Total/NA	Water	5310 B-2011	
410-38134-8	S-218D_20210430	Total/NA	Water	5310 B-2011	
410-38134-9	S-38D2_20210430	Total/NA	Water	5310 B-2011	
MB 410-123209/5	Method Blank	Total/NA	Water	5310 B-2011	
LCS 410-123209/36	Lab Control Sample	Total/NA	Water	5310 B-2011	
LCS 410-123209/4	Lab Control Sample	Total/NA	Water	5310 B-2011	
410-38134-3 MS	S-425_20210430	Total/NA	Water	5310 B-2011	
410-38134-3 DU	S-425_20210430	Total/NA	Water	5310 B-2011	

Analysis Batch: 123355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38134-5	A-4_20210430	Total/NA	Water	5310 B-2011	
410-38134-6	C-144D_20210430	Total/NA	Water	5310 B-2011	
MB 410-123355/4	Method Blank	Total/NA	Water	5310 B-2011	

Prep Batch: 123722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38134-2	FB_20210503	Total/NA	Water	351.2	
410-38134-4	A-182_20210430	Total/NA	Water	351.2	
410-38134-6	C-144D_20210430	Total/NA	Water	351.2	
MB 410-123722/2-A	Method Blank	Total/NA	Water	351.2	
LCS 410-123722/1-A	Lab Control Sample	Total/NA	Water	351.2	
LCSD 410-123722/15-A	Lab Control Sample Dup	Total/NA	Water	351.2	
410-38134-6 MS	C-144D_20210430	Total/NA	Water	351.2	
410-38134-6 DU	C-144D_20210430	Total/NA	Water	351.2	

Analysis Batch: 124437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38134-2	FB_20210503	Total/NA	Water	5310C-2011	
410-38134-3	S-425_20210430	Total/NA	Water	5310C-2011	
410-38134-4	A-182_20210430	Total/NA	Water	5310C-2011	
410-38134-5	A-4_20210430	Total/NA	Water	5310C-2011	
410-38134-6	C-144D_20210430	Total/NA	Water	5310C-2011	
410-38134-7	C-134D_20210430	Total/NA	Water	5310C-2011	
410-38134-8	S-218D_20210430	Total/NA	Water	5310C-2011	
410-38134-9	S-38D2_20210430	Total/NA	Water	5310C-2011	
MB 410-124437/39	Method Blank	Total/NA	Water	5310C-2011	
MB 410-124437/5	Method Blank	Total/NA	Water	5310C-2011	
LCS 410-124437/36	Lab Control Sample	Total/NA	Water	5310C-2011	

General Chemistry (Continued)

Analysis Batch: 124437 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-124437/4	Lab Control Sample	Total/NA	Water	5310C-2011	
410-38134-8 MS	S-218D_20210430	Total/NA	Water	5310C-2011	
410-38134-8 DU	S-218D_20210430	Total/NA	Water	5310C-2011	

Analysis Batch: 124510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38134-2	FB_20210503	Total/NA	Water	SM5310C	
410-38134-3	S-425_20210430	Total/NA	Water	SM5310C	
410-38134-4	A-182_20210430	Total/NA	Water	SM5310C	
410-38134-5	A-4_20210430	Total/NA	Water	SM5310C	
410-38134-6	C-144D_20210430	Total/NA	Water	SM5310C	
410-38134-7	C-134D_20210430	Total/NA	Water	SM5310C	
410-38134-8	S-218D_20210430	Total/NA	Water	SM5310C	
410-38134-9	S-38D2_20210430	Total/NA	Water	SM5310C	

Analysis Batch: 124971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38134-6	C-144D_20210430	Total/NA	Water	351.2	123722
MB 410-123722/2-A	Method Blank	Total/NA	Water	351.2	123722
LCS 410-123722/1-A	Lab Control Sample	Total/NA	Water	351.2	123722
410-38134-6 MS	C-144D_20210430	Total/NA	Water	351.2	123722
410-38134-6 DU	C-144D_20210430	Total/NA	Water	351.2	123722

Analysis Batch: 125020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38134-2	FB_20210503	Total/NA	Water	351.2	123722
410-38134-4	A-182_20210430	Total/NA	Water	351.2	123722

Analysis Batch: 125533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 410-123722/15-A	Lab Control Sample Dup	Total/NA	Water	351.2	123722
LCSD 410-123722/15-A	Lab Control Sample Dup	Total/NA	Water	351.2	123722
LCSD 410-123722/15-A	Lab Control Sample Dup	Total/NA	Water	351.2	123722

Client Sample ID: TB_20210503

Lab Sample ID: 410-38134-1

Date Collected: 05/03/21 00:00

Matrix: Water

Date Received: 05/03/21 17:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	122616	05/05/21 13:09	USEJ	ELLE

Client Sample ID: FB_20210503

Lab Sample ID: 410-38134-2

Date Collected: 05/03/21 08:00

Matrix: Water

Date Received: 05/03/21 17:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	122616	05/05/21 13:33	USEJ	ELLE
Total/NA	Prep	3510C			124523	05/10/21 15:52	DN9W	ELLE
Total/NA	Analysis	8270D		1	124834	05/11/21 20:25	W6XI	ELLE
Total/NA	Prep	RSK-175			122114	05/04/21 12:39	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	122076	05/04/21 18:52	LXF2	ELLE
Total/NA	Prep	8011			122942	05/05/21 19:45	QQ3P	ELLE
Total/NA	Analysis	8011		1	123056	05/06/21 11:06	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		1	122544	05/05/21 15:30	GJ35	ELLE
Total Recoverable	Prep	3005A			122491	05/05/21 01:31	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	122852	05/05/21 14:36	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			122984	05/05/21 21:47	UJLA	ELLE
Dissolved	Analysis	6020A		1	123354	05/06/21 13:23	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	122817	05/05/21 04:22	DI9Q	ELLE
Total/NA	Prep	351.2			123722	05/07/21 10:26	F8AU	ELLE
Total/NA	Analysis	351.2		1	125020	05/11/21 09:48	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		1	123209	05/06/21 03:00	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	124437	05/08/21 23:57	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:13	NKL9	ELLE

Client Sample ID: S-425_20210430

Lab Sample ID: 410-38134-3

Date Collected: 04/30/21 08:00

Matrix: Water

Date Received: 05/03/21 17:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	122616	05/05/21 14:46	USEJ	ELLE
Total/NA	Prep	3510C			123574	05/07/21 09:56	QTH7	ELLE
Total/NA	Analysis	8270D		1	124139	05/10/21 05:52	SJ89	ELLE
Total/NA	Prep	RSK-175			122114	05/04/21 12:39	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	122076	05/04/21 19:11	LXF2	ELLE
Total/NA	Prep	8011			122942	05/05/21 19:45	QQ3P	ELLE
Total/NA	Analysis	8011		1	123056	05/06/21 11:23	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	122544	05/05/21 15:47	GJ35	ELLE
Total Recoverable	Prep	3005A			122491	05/05/21 01:31	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	122852	05/05/21 14:26	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			122984	05/05/21 21:47	UJLA	ELLE
Dissolved	Analysis	6020A		1	123354	05/06/21 13:17	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	122817	05/05/21 02:38	DI9Q	ELLE

Client Sample ID: S-425_20210430

Lab Sample ID: 410-38134-3

Date Collected: 04/30/21 08:00

Matrix: Water

Date Received: 05/03/21 17:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	351.2			122642	05/05/21 07:15	UNJS	ELLE
Total/NA	Analysis	351.2		1	122853	05/05/21 13:50	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		5	123209	05/06/21 03:10	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	124437	05/09/21 00:12	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:13	NKL9	ELLE

Client Sample ID: A-182_20210430

Lab Sample ID: 410-38134-4

Date Collected: 04/30/21 09:45

Matrix: Water

Date Received: 05/03/21 17:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	122616	05/05/21 15:10	USEJ	ELLE
Total/NA	Prep	3510C			123574	05/07/21 09:56	QTH7	ELLE
Total/NA	Analysis	8270D		1	124139	05/10/21 06:22	SJ89	ELLE
Total/NA	Prep	RSK-175			122114	05/04/21 12:39	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	122076	05/04/21 19:29	LXF2	ELLE
Total/NA	Prep	8011			122942	05/05/21 19:45	QQ3P	ELLE
Total/NA	Analysis	8011		1	123056	05/06/21 11:40	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	122544	05/05/21 16:03	GJ35	ELLE
Total Recoverable	Prep	3005A			122491	05/05/21 01:31	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	122852	05/05/21 14:55	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			122984	05/05/21 21:47	UJLA	ELLE
Dissolved	Analysis	6020A		1	123354	05/06/21 13:02	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	122817	05/05/21 04:09	DI9Q	ELLE
Total/NA	Prep	351.2			123722	05/07/21 10:26	F8AU	ELLE
Total/NA	Analysis	351.2		1	125020	05/11/21 09:46	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		5	123209	05/06/21 03:43	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	124437	05/09/21 00:26	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:13	NKL9	ELLE

Client Sample ID: A-4_20210430

Lab Sample ID: 410-38134-5

Date Collected: 04/30/21 10:55

Matrix: Water

Date Received: 05/03/21 17:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	122616	05/05/21 15:34	USEJ	ELLE
Total/NA	Prep	3510C			123574	05/07/21 09:56	QTH7	ELLE
Total/NA	Analysis	8270D		1	124139	05/10/21 06:52	SJ89	ELLE
Total/NA	Prep	RSK-175			122114	05/04/21 12:39	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	122076	05/04/21 19:48	LXF2	ELLE
Total/NA	Prep	8011			122942	05/05/21 19:45	QQ3P	ELLE
Total/NA	Analysis	8011		1	123056	05/06/21 11:57	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	122544	05/05/21 16:35	GJ35	ELLE

Client Sample ID: A-4_20210430

Lab Sample ID: 410-38134-5

Date Collected: 04/30/21 10:55

Matrix: Water

Date Received: 05/03/21 17:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			122491	05/05/21 01:31	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	122852	05/05/21 14:42	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			122984	05/05/21 21:47	UJLA	ELLE
Dissolved	Analysis	6020A		1	123354	05/06/21 14:13	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	122817	05/05/21 04:15	DI9Q	ELLE
Total/NA	Prep	351.2			122642	05/05/21 07:15	UNJS	ELLE
Total/NA	Analysis	351.2		1	122853	05/05/21 14:23	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		1	123355	05/06/21 13:08	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	124437	05/09/21 00:40	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:13	NKL9	ELLE

Client Sample ID: C-144D_20210430

Lab Sample ID: 410-38134-6

Date Collected: 04/30/21 10:50

Matrix: Water

Date Received: 05/03/21 17:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	122616	05/05/21 15:58	USEJ	ELLE
Total/NA	Prep	3510C			123574	05/07/21 09:56	QTH7	ELLE
Total/NA	Analysis	8270D		1	124548	05/10/21 21:48	W6XI	ELLE
Total/NA	Prep	RSK-175			122114	05/04/21 12:39	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	122076	05/04/21 20:07	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		122572	05/06/21 07:40	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	10	123090	05/06/21 09:59	LXF2	ELLE
Total/NA	Prep	8011			122942	05/05/21 19:45	QQ3P	ELLE
Total/NA	Analysis	8011		1	123056	05/06/21 12:14	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	122855	05/05/21 16:12	GJ35	ELLE
Total Recoverable	Prep	3005A			122491	05/05/21 01:31	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	122852	05/05/21 14:05	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			122984	05/05/21 21:47	UJLA	ELLE
Dissolved	Analysis	6020A		1	123354	05/06/21 13:25	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	122817	05/05/21 02:55	DI9Q	ELLE
Total/NA	Prep	351.2			123722	05/07/21 10:26	F8AU	ELLE
Total/NA	Analysis	351.2		1	124971	05/10/21 14:46	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		2	123355	05/06/21 13:19	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	124437	05/09/21 00:55	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:13	NKL9	ELLE

Client Sample ID: C-134D_20210430

Lab Sample ID: 410-38134-7

Date Collected: 04/30/21 11:25

Matrix: Water

Date Received: 05/03/21 17:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	122616	05/05/21 16:22	USEJ	ELLE

Client Sample ID: C-134D_20210430

Lab Sample ID: 410-38134-7

Date Collected: 04/30/21 11:25

Matrix: Water

Date Received: 05/03/21 17:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			123574	05/07/21 09:56	QTH7	ELLE
Total/NA	Analysis	8270D		1	124548	05/10/21 22:18	W6XI	ELLE
Total/NA	Prep	RSK-175			122114	05/04/21 12:39	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	122076	05/04/21 20:26	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		122572	05/06/21 07:40	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	10	123090	05/06/21 10:17	LXF2	ELLE
Total/NA	Prep	8011			122942	05/05/21 19:45	QQ3P	ELLE
Total/NA	Analysis	8011		1	123056	05/06/21 12:31	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	122855	05/05/21 17:06	GJ35	ELLE
Total Recoverable	Prep	3005A			122491	05/05/21 01:31	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	122852	05/05/21 14:52	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			122984	05/05/21 21:47	UJLA	ELLE
Dissolved	Analysis	6020A		1	123354	05/06/21 13:04	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	122817	05/05/21 02:32	DI9Q	ELLE
Total/NA	Prep	351.2			122642	05/05/21 07:15	UNJS	ELLE
Total/NA	Analysis	351.2		1	122853	05/05/21 14:00	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	123209	05/06/21 04:37	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	124437	05/09/21 01:09	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:13	NKL9	ELLE

Client Sample ID: S-218D_20210430

Lab Sample ID: 410-38134-8

Date Collected: 04/30/21 12:50

Matrix: Water

Date Received: 05/03/21 17:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	122616	05/05/21 16:46	USEJ	ELLE
Total/NA	Prep	3510C			123574	05/07/21 09:56	QTH7	ELLE
Total/NA	Analysis	8270D		1	124548	05/10/21 22:48	W6XI	ELLE
Total/NA	Prep	RSK-175			122114	05/04/21 12:39	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	122076	05/04/21 20:45	LXF2	ELLE
Total/NA	Prep	8011			122942	05/05/21 19:45	QQ3P	ELLE
Total/NA	Analysis	8011		1	123056	05/06/21 12:48	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	122855	05/05/21 17:42	GJ35	ELLE
Total Recoverable	Prep	3005A			122491	05/05/21 01:31	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	122852	05/05/21 14:45	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			122984	05/05/21 21:47	UJLA	ELLE
Dissolved	Analysis	6020A		1	123354	05/06/21 13:19	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	122817	05/05/21 03:08	DI9Q	ELLE
Total/NA	Prep	351.2			122642	05/05/21 07:15	UNJS	ELLE
Total/NA	Analysis	351.2		1	122853	05/05/21 13:56	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		5	123209	05/06/21 04:48	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	124437	05/09/21 02:21	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:13	NKL9	ELLE

Lab Chronicle

Client: Stantec Consulting Corp.
Job ID: 410-38134-1
Project/Site: Former PES Annual GWS

Client Sample ID: S-38D2_20210430
Lab Sample ID: 410-38134-9
Date Collected: 04/30/21 13:50
Matrix: Water
Date Received: 05/03/21 17:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	122616	05/05/21 17:10	USEJ	ELLE
Total/NA	Prep	3510C			123580	05/07/21 09:58	QTH7	ELLE
Total/NA	Analysis	8270D		1	125078	05/12/21 00:55	W6XI	ELLE
Total/NA	Prep	RSK-175			122114	05/04/21 12:39	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	122076	05/04/21 21:04	LXF2	ELLE
Total/NA	Prep	8011			122942	05/05/21 19:45	QQ3P	ELLE
Total/NA	Analysis	8011		1	123056	05/06/21 13:05	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	122855	05/05/21 18:55	GJ35	ELLE
Total Recoverable	Prep	3005A			122491	05/05/21 01:31	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	122852	05/05/21 14:49	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			122984	05/05/21 21:47	UJLA	ELLE
Dissolved	Analysis	6020A		1	123354	05/06/21 13:21	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	122817	05/05/21 03:01	DI9Q	ELLE
Total/NA	Prep	351.2			122642	05/05/21 07:15	UNJS	ELLE
Total/NA	Analysis	351.2		1	122853	05/05/21 13:58	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		5	123209	05/06/21 04:59	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	124437	05/09/21 03:04	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:13	NKL9	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38134-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
5310 B-2011		Water	Total Carbon
SM5310C		Water	Total Inorganic Carbon

Method Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38134-1

Method	Method Description	Protocol	Laboratory
8260C/UST	Volatile Organic Compounds (GC/MS)	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
RSK-175	Dissolved Gases (GC)	RSK	ELLE
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	ELLE
6010C	Metals (ICP)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
2320B-2011	Alkalinity, Total	SM	ELLE
351.2	Nitrogen, Total Kjeldahl	MCAWW	ELLE
5310 B-2011	Carbon, Total and Total Inorganic	SM	ELLE
5310C-2011	Total Organic Carbon/Persulfate - Ultrav	SM	ELLE
SM5310C	Carbon, Total Inorganic	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
351.2	Nitrogen, Total Kjeldahl	MCAWW	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
8011	Microextraction	SW846	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique , RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38134-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-38134-1	TB_20210503	Water	05/03/21 00:00	05/03/21 17:33	
410-38134-2	FB_20210503	Water	05/03/21 08:00	05/03/21 17:33	
410-38134-3	S-425_20210430	Water	04/30/21 08:00	05/03/21 17:33	
410-38134-4	A-182_20210430	Water	04/30/21 09:45	05/03/21 17:33	
410-38134-5	A-4_20210430	Water	04/30/21 10:55	05/03/21 17:33	
410-38134-6	C-144D_20210430	Water	04/30/21 10:50	05/03/21 17:33	
410-38134-7	C-134D_20210430	Water	04/30/21 11:25	05/03/21 17:33	
410-38134-8	S-218D_20210430	Water	04/30/21 12:50	05/03/21 17:33	
410-38134-9	S-38D2_20210430	Water	04/30/21 13:50	05/03/21 17:33	

Environmental Analysis R ... ustody

eurofins | Lancaster Laboratories Environmental

Acct. # _____

410-38134 Chain of Custody

al use only

COC #617429

Client Information

Client: Evergreen c/o Stantec	Acct. #: 16657
Project Name/#: Former PES Annual GWS	PWSID #:
Project Manager: Andy Bradley	P.O. #: 2134033603
Sampler: Dane Hopkins, Andrea Hill, Ian Andree, Michael Ochmanowicz, Jim Craft	Quote #:
State where samples were collected: PA	For Compliance: Yes ☐ No ☐

For Lab Use Only
FSC: _____
SCR#: 266748

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks
*for Evergreen Petro short list of analytes refer to attached analyte list
trip blank
field blank

Sample Identification	Collected Date	Collected Time	Grab	Composite	Matrix: Soil ☐ Sediment ☐ Tissue ☐	Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐	Other: trip/field blank	Total # of Containers	Analysis Requested: Evergreen Petro Short List	Dissolved Lead (field filtered)	TIC	Sulfate	Dissolved Headspace Gases (methane, ethane, ethene)	Total Iron	Total Calcium	Total Kjeldahl Nitrogen	Alkalinity as $CaCO_3$	VOC 8260 / EDB 8011
TB-20210503	4/22/21	—					X	4										X
FB-20210503	5/3/21	0800	X				X	18	X	X	X	X	X	X	X	X	X	
DPH A-425-20210430 S-425-20210430	4/30/21	0800	X			X		18	X	X	X	X	X	X	X	X	X	
A-182-20210430		0945	X			X		18	X	X	X	X	X	X	X	X	X	
A-4-20210430		1055	X			X		18	X	X	X	X	X	X	X	X	X	
C-144D-20210430		1050	X			X		18	X	X	X	X	X	X	X	X	X	
C-134D-20210430		1125	X			X		18	X	X	X	X	X	X	X	X	X	
S-218D-20210430		1250	X			X		18	X	X	X	X	X	X	X	X	X	
S-38D2-20210430	↓	1350	X			X		18	X	X	X	X	X	X	X	X	X	

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: _____

E-mail address: andrew.bradley@stantec.com

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
	5/3/21	1310		5/3/21	1340
	5/3	1733			
				5/3/21	1733

EDD Required? Yes No
If yes, format: EQuIS

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:
UPS _____ FedEx _____ Other _____

Temperature upon receipt 2.1-3.9 °C

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The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0919

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vergreen Petroleum Short List (June 2016)

OCs by EPA Method 8260	CAS No.
nzene	71-43-2
mene	98-82-8
chloroethane, 1,2-	107-06-2
nylbenzene	100-41-4
nylene Dibromide*	106-93-4
ethyl tert butyl ether	1634-04-4
luene	108-88-3
methylbenzene, 1,2,4-	95-63-6
methylbenzene, 1,3,5-	108-67-8
lenes	1330-20-7

OCs by EPA Method 8270	CAS No.
thracene	120-12-7
nzo(a)anthracene	56-55-3
nzo(a)pyrene	50-32-8
nzo(b)fluoranthene	205-99-2
nzo(g,h,i)perylene	191-24-2
rysene	218-01-9
uorene	86-73-7
phthalene**	91-20-3
enanthrene	85-01-8
rene	129-00-0

etals by Method 6010/6020	CAS No.
ad***	7439-92-1

thylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

*Metals analysis should be total in soil and dissolved in groundwater.

s list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-38134-1

Login Number: 38134

List Source: Eurofins Lancaster Laboratories Env

List Number: 1

Creator: Metzger, Katherine A

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	True	

eurofins | Environment Testing America



ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-38315-1
Client Project/Site: Former PES Annual GWS
Revision: 1

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Mr. Andrew Bradley

Authorized for release by:
6/3/2021 5:57:51 PM

Amek Carter, Project Manager
(717)556-7252
Loran.Carter@eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
6/3/2021 5:57:51 PM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 6
Detection Summary 7
Client Sample Results 12
Surrogate Summary 31
QC Sample Results 34
QC Association Summary 47
Lab Chronicle 56
Certification Summary 63
Method Summary 64
Sample Summary 65
Chain of Custody 66
Receipt Checklists 72

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38315-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
^c	CCV Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
S1+	Surrogate recovery exceeds control limits, high biased.

HPLC/IC

Qualifier	Qualifier Description
^c	CCV Recovery is outside acceptance limits.
E	Result exceeded calibration range.
FH	MS and/or MSD recovery above control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
FH	MS and/or MSD recovery above control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-38315-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-38315-1

Revision
The report being provided is a revision of the original report sent on 5/18/2021. The report (revision 1) is being revised due to: Correct calibration data for EDB by 8011.

Receipt
The samples were received on 5/4/2021 7:19 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 2.7°C, 3.8°C and 5.9°C

GC/MS VOA
Method 8260C_UST: The continuing calibration verification (CCV) associated with batch 410-123230 recovered outside acceptance criteria, low biased, for Naphthalene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260C_UST: The following analyte(s) recovered outside control limits for the LCSD associated with 410-123230: Naphthalene. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270D: The laboratory control sample (LCS) for preparation batch 410-124235 and analytical batch 410-124834 recovered outside control limits for the following analytes: Benzo[a]pyrene. The associated sample(s) was re-prepared and/or re-analyzed outside holding time. The first set of data has been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38315-1

Client Sample ID: S-38_20210503 — Lab Sample ID: 410-38315-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	5.5		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Ethylbenzene	1.6		1.0	0.40	ug/L	1		8260C/UST	Total/NA
Isopropylbenzene	0.66	J	5.0	0.20	ug/L	1		8260C/UST	Total/NA
Toluene	2.5		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Xylenes, Total	2.4	J	6.0	1.4	ug/L	1		8260C/UST	Total/NA
Naphthalene	0.25	J	0.52	0.10	ug/L	1		8270D	Total/NA
Methane (1C) - DL	670		25	15	ug/L	5		RSK-175	Total/NA
Sulfate	17000		5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	52000		500	96	ug/L	1		6010C	Total Recoverable
Iron	5600		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	130000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	550	J	1000	500	ug/L	1		351.2	Total/NA
Total Carbon	44000	FH	25000	13000	ug/L	25		5310 B-2011	Total/NA
Total Organic Carbon	1700		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	42000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: DUP-5_20210503 — Lab Sample ID: 410-38315-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1.3	J	5.0	1.0	ug/L	1		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	0.50	J	5.0	0.30	ug/L	1		8260C/UST	Total/NA
Benzene	7.5		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Ethylbenzene	3.8		1.0	0.40	ug/L	1		8260C/UST	Total/NA
Isopropylbenzene	1.3	J	5.0	0.20	ug/L	1		8260C/UST	Total/NA
Toluene	5.0		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Xylenes, Total	5.7	J	6.0	1.4	ug/L	1		8260C/UST	Total/NA
Naphthalene	0.50	J	0.51	0.10	ug/L	1		8270D	Total/NA
Methane (1C) - DL	850		25	15	ug/L	5		RSK-175	Total/NA
Sulfate	17000		5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	50000		500	96	ug/L	1		6010C	Total Recoverable
Iron	6700		200	40	ug/L	1		6010C	Total Recoverable
Lead	0.088	J	0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	140000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	760	J	1000	500	ug/L	1		351.2	Total/NA
Total Carbon	38000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	1600		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	36000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: W-12_SL_20210503 — Lab Sample ID: 410-38315-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methane (1C) - DL	610		25	15	ug/L	5		RSK-175	Total/NA
Sulfate	57000	FH	5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	66000		500	96	ug/L	1		6010C	Total Recoverable
Iron	1900		200	40	ug/L	1		6010C	Total Recoverable
Lead	0.30	J	0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	190000		8000	8000	ug/L	1		2320B-2011	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38315-1

Client Sample ID: W-12_SL_20210503 (Continued) — Lab Sample ID: 410-38315-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Carbon	45000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	4600		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	40000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-447_20210503 — Lab Sample ID: 410-38315-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	120		25	5.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	40		25	1.5	ug/L	5		8260C/UST	Total/NA
Benzene	220		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Ethylbenzene	310		5.0	2.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	15	J	25	1.0	ug/L	5		8260C/UST	Total/NA
Toluene	450		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	710		30	7.0	ug/L	5		8260C/UST	Total/NA
Naphthalene	31		0.51	0.10	ug/L	1		8270D	Total/NA
Ethane (1C)	6.2		5.0	1.0	ug/L	1		RSK-175	Total/NA
Ethene (1C)	1.3	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	15000		1000	600	ug/L	200		RSK-175	Total/NA
Calcium	35000		500	96	ug/L	1		6010C	Total Recoverable
Iron	42000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	240000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	2500		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	78000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	19000		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	59000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: W-13_20210503 — Lab Sample ID: 410-38315-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.49	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
t-Butyl alcohol	18	J	50	12	ug/L	1		8260C/UST	Total/NA
Methane (1C) - DL	34000		1000	600	ug/L	200		RSK-175	Total/NA
Calcium	97000		500	96	ug/L	1		6010C	Total Recoverable
Iron	70000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	520000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Carbon	140000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	13000		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	130000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: W-32D_20210503 — Lab Sample ID: 410-38315-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.0		1.0	0.20	ug/L	1		8260C/UST	Total/NA
t-Butyl alcohol	66		50	12	ug/L	1		8260C/UST	Total/NA
Anthracene	0.28	J	0.53	0.11	ug/L	1		8270D	Total/NA
Benzo[a]anthracene	0.36	J	0.53	0.11	ug/L	1		8270D	Total/NA
Benzo[a]pyrene	0.38	J *+	0.53	0.12	ug/L	1		8270D	Total/NA
Chrysene	0.48	J	0.53	0.11	ug/L	1		8270D	Total/NA
Fluorene	0.50	J	0.53	0.13	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: W-32D_20210503 (Continued) — Lab Sample ID: 410-38315-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.27	J	0.53	0.12	ug/L	1		8270D	Total/NA
Pyrene	1.1		0.53	0.11	ug/L	1		8270D	Total/NA
Methane (1C) - DL	22000		1000	600	ug/L	200		RSK-175	Total/NA
Sulfate	2200	J	5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	78000		500	96	ug/L	1		6010C	Total Recoverable
Iron	220000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	410000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	41000		20000	10000	ug/L	20		351.2	Total/NA
Total Carbon	110000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	18000		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	92000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: RW-708_20210503 — Lab Sample ID: 410-38315-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	160		5.0	1.0	ug/L	1		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	92		5.0	0.30	ug/L	1		8260C/UST	Total/NA
Benzene	99		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Ethylbenzene	50		1.0	0.40	ug/L	1		8260C/UST	Total/NA
Isopropylbenzene	2.2	J	5.0	0.20	ug/L	1		8260C/UST	Total/NA
t-Butyl alcohol	37	J	50	12	ug/L	1		8260C/UST	Total/NA
Toluene	9.4		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Xylenes, Total	470		6.0	1.4	ug/L	1		8260C/UST	Total/NA
Fluorene	0.97		0.51	0.12	ug/L	1		8270D	Total/NA
Phenanthrene	0.48	J	0.51	0.11	ug/L	1		8270D	Total/NA
Pyrene	0.19	J	0.51	0.10	ug/L	1		8270D	Total/NA
Methane (1C) - DL	8000		250	150	ug/L	50		RSK-175	Total/NA
Calcium	54000		500	96	ug/L	1		6010C	Total Recoverable
Iron	11000		200	40	ug/L	1		6010C	Total Recoverable
Lead	0.24	J	0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	190000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	2000		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	39000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	4500		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	35000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-114SRTF_20210503 — Lab Sample ID: 410-38315-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1100		50	10	ug/L	10		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	350		50	3.0	ug/L	10		8260C/UST	Total/NA
Ethylbenzene	1000		10	4.0	ug/L	10		8260C/UST	Total/NA
Isopropylbenzene	89		50	2.0	ug/L	10		8260C/UST	Total/NA
Methyl tert-butyl ether	5.9	J	10	2.0	ug/L	10		8260C/UST	Total/NA
Benzene - DL	2200		100	20	ug/L	100		8260C/UST	Total/NA
Toluene - DL	7400		100	20	ug/L	100		8260C/UST	Total/NA
Xylenes, Total - DL	8400		600	140	ug/L	100		8260C/UST	Total/NA
Fluorene	0.44	J	0.51	0.12	ug/L	1		8270D	Total/NA
Phenanthrene	0.30	J	0.51	0.11	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: S-114SRTF_20210503 (Continued) — Lab Sample ID: 410-38315-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene - DL	200		2.5	0.51	ug/L	5		8270D	Total/NA
Ethane (1C)	5.4		5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	11000		250	150	ug/L	50		RSK-175	Total/NA
Sulfate	31000	J ^c	50000	15000	ug/L	50		EPA 300.0 R2.1	Total/NA
Calcium	97000		500	96	ug/L	1		6010C	Total Recoverable
Iron	63000		200	40	ug/L	1		6010C	Total Recoverable
Lead	1.7		0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	370000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	7200		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	150000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	24000		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	130000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-115DSRTF_20210503 — Lab Sample ID: 410-38315-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloroethane	0.36	J	1.0	0.30	ug/L	1		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	0.35	J	5.0	0.30	ug/L	1		8260C/UST	Total/NA
Benzene	1.8		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Ethylbenzene	0.58	J	1.0	0.40	ug/L	1		8260C/UST	Total/NA
Methyl tert-butyl ether	23		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Toluene	4.4		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Xylenes, Total	5.2	J	6.0	1.4	ug/L	1		8260C/UST	Total/NA
Ethane (1C)	5.1		5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C)	73		5.0	3.0	ug/L	1		RSK-175	Total/NA
Sulfate	110000		50000	15000	ug/L	50		EPA 300.0 R2.1	Total/NA
Calcium	160000		500	96	ug/L	1		6010C	Total Recoverable
Iron	29000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	680000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	25000		10000	5000	ug/L	10		351.2	Total/NA
Total Carbon	160000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	14000		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	150000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-118DSTRF_20210503 — Lab Sample ID: 410-38315-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloroethane	0.31	J	1.0	0.30	ug/L	1		8260C/UST	Total/NA
Benzene	0.70	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Isopropylbenzene	0.28	J	5.0	0.20	ug/L	1		8260C/UST	Total/NA
Methyl tert-butyl ether	81		1.0	0.20	ug/L	1		8260C/UST	Total/NA
t-Butyl alcohol	25	J	50	12	ug/L	1		8260C/UST	Total/NA
Toluene	1.7		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Xylenes, Total	2.4	J	6.0	1.4	ug/L	1		8260C/UST	Total/NA
Ethane (1C)	5.7		5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C)	59		5.0	3.0	ug/L	1		RSK-175	Total/NA
Sulfate	86000		50000	15000	ug/L	50		EPA 300.0 R2.1	Total/NA
Calcium	140000		500	96	ug/L	1		6010C	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: S-118DSTRF_20210503 (Continued) — Lab Sample ID: 410-38315-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	27000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	730000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	15000		5000	2500	ug/L	5		351.2	Total/NA
Total Carbon	180000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	20000		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	160000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: W-1_SL_20210503 — Lab Sample ID: 410-38315-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Isopropylbenzene	0.38	J	5.0	0.20	ug/L	1		8260C/UST	Total/NA
Methyl tert-butyl ether	0.39	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Anthracene	0.21	J	0.50	0.10	ug/L	1		8270D	Total/NA
Benzo[a]anthracene	0.15	J	0.50	0.10	ug/L	1		8270D	Total/NA
Chrysene	0.27	J	0.50	0.10	ug/L	1		8270D	Total/NA
Fluorene	0.82		0.50	0.12	ug/L	1		8270D	Total/NA
Phenanthrene	0.27	J	0.50	0.11	ug/L	1		8270D	Total/NA
Pyrene	0.62		0.50	0.10	ug/L	1		8270D	Total/NA
Methane (1C) - DL	21000		500	300	ug/L	100		RSK-175	Total/NA
Calcium	93000		500	96	ug/L	1		6010C	Total Recoverable
Iron	20000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	340000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	5200		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	90000		25000	13000	ug/L	25		5310 B-2011	Total/NA
Total Organic Carbon	6500		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	84000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: TB_20210504 — Lab Sample ID: 410-38315-12

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: S-38_20210503

Date Collected: 05/03/21 09:50
Date Received: 05/04/21 19:19

Lab Sample ID: 410-38315-1

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/06/21 20:17	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/06/21 20:17	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/06/21 20:17	1
Benzene	**5.5**		1.0	0.20	ug/L			05/06/21 20:17	1
Ethylbenzene	**1.6**		1.0	0.40	ug/L			05/06/21 20:17	1
Isopropylbenzene	**0.66**	**J**	5.0	0.20	ug/L			05/06/21 20:17	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/06/21 20:17	1
t-Butyl alcohol	ND		50	12	ug/L			05/06/21 20:17	1
Toluene	**2.5**		1.0	0.20	ug/L			05/06/21 20:17	1
Xylenes, Total	**2.4**	**J**	6.0	1.4	ug/L			05/06/21 20:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*82*		*80 - 120*		*05/06/21 20:17*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*05/06/21 20:17*	*1*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*05/06/21 20:17*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/06/21 20:17*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.52	0.10	ug/L		05/10/21 15:52	05/12/21 15:22	1
Benzo[a]anthracene	ND		0.52	0.10	ug/L		05/10/21 15:52	05/12/21 15:22	1
Benzo[a]pyrene	ND	*+	0.52	0.11	ug/L		05/10/21 15:52	05/12/21 15:22	1
Benzo[b]fluoranthene	ND		0.52	0.10	ug/L		05/10/21 15:52	05/12/21 15:22	1
Benzo[g,h,i]perylene	ND		0.52	0.10	ug/L		05/10/21 15:52	05/12/21 15:22	1
Chrysene	ND		0.52	0.10	ug/L		05/10/21 15:52	05/12/21 15:22	1
Fluorene	ND		0.52	0.12	ug/L		05/10/21 15:52	05/12/21 15:22	1
Naphthalene	**0.25**	**J**	0.52	0.10	ug/L		05/10/21 15:52	05/12/21 15:22	1
Phenanthrene	ND		0.52	0.11	ug/L		05/10/21 15:52	05/12/21 15:22	1
Pyrene	ND		0.52	0.10	ug/L		05/10/21 15:52	05/12/21 15:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*73*		*44 - 102*	*05/10/21 15:52*	*05/12/21 15:22*	*1*
Nitrobenzene-d5 (Surr)	*75*		*23 - 128*	*05/10/21 15:52*	*05/12/21 15:22*	*1*
p-Terphenyl-d14 (Surr)	*35*		*31 - 113*	*05/10/21 15:52*	*05/12/21 15:22*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/05/21 08:53	05/05/21 19:47	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/05/21 08:53	05/05/21 19:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*78*		*28 - 140*	*05/05/21 08:53*	*05/05/21 19:47*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**670**		25	15	ug/L		05/06/21 08:14	05/06/21 15:40	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*85*		*28 - 140*	*05/06/21 08:14*	*05/06/21 15:40*	*5*

Client Sample ID: S-38_20210503

Date Collected: 05/03/21 09:50
Date Received: 05/04/21 19:19

Lab Sample ID: 410-38315-1
Matrix: Water

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND	*+	0.029	0.0098	ug/L		05/05/21 19:45	05/06/21 10:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*108*		*46 - 136*	*05/05/21 19:45*	*05/06/21 10:25*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*105*		*46 - 136*	*05/05/21 19:45*	*05/06/21 10:25*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**17000**		5000	1500	ug/L			05/05/21 22:15	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**52000**		500	96	ug/L		05/05/21 13:58	05/10/21 15:04	1
Iron	**5600**		200	40	ug/L		05/05/21 13:58	05/10/21 15:04	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/05/21 21:43	05/06/21 12:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**130000**		8000	8000	ug/L			05/07/21 02:49	1
Total Kjeldahl Nitrogen	**550**	**J**	1000	500	ug/L		05/06/21 07:25	05/13/21 14:34	1
Total Carbon	**44000**	**FH**	25000	13000	ug/L			05/08/21 18:50	25
Total Organic Carbon	**1700**		1000	500	ug/L			05/09/21 09:05	1
Total Inorganic Carbon	**42000**		2000	600	ug/L			05/10/21 15:13	1

Client Sample ID: DUP-5_20210503

Date Collected: 05/03/21 00:00
Date Received: 05/04/21 19:19

Lab Sample ID: 410-38315-2
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**1.3**	**J**	5.0	1.0	ug/L			05/06/21 20:40	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/06/21 20:40	1
1,3,5-Trimethylbenzene	**0.50**	**J**	5.0	0.30	ug/L			05/06/21 20:40	1
Benzene	**7.5**		1.0	0.20	ug/L			05/06/21 20:40	1
Ethylbenzene	**3.8**		1.0	0.40	ug/L			05/06/21 20:40	1
Isopropylbenzene	**1.3**	**J**	5.0	0.20	ug/L			05/06/21 20:40	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/06/21 20:40	1
t-Butyl alcohol	ND		50	12	ug/L			05/06/21 20:40	1
Toluene	**5.0**		1.0	0.20	ug/L			05/06/21 20:40	1
Xylenes, Total	**5.7**	**J**	6.0	1.4	ug/L			05/06/21 20:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*85*		*80 - 120*		*05/06/21 20:40*	*1*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*05/06/21 20:40*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*05/06/21 20:40*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/06/21 20:40*	*1*

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38315-1

Client Sample ID: DUP-5_20210503

Date Collected: 05/03/21 00:00
Date Received: 05/04/21 19:19

Lab Sample ID: 410-38315-2

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.51	0.10	ug/L		05/10/21 15:52	05/12/21 15:49	1
Benzo[a]anthracene	ND		0.51	0.10	ug/L		05/10/21 15:52	05/12/21 15:49	1
Benzo[a]pyrene	ND	*+	0.51	0.11	ug/L		05/10/21 15:52	05/12/21 15:49	1
Benzo[b]fluoranthene	ND		0.51	0.10	ug/L		05/10/21 15:52	05/12/21 15:49	1
Benzo[g,h,i]perylene	ND		0.51	0.10	ug/L		05/10/21 15:52	05/12/21 15:49	1
Chrysene	ND		0.51	0.10	ug/L		05/10/21 15:52	05/12/21 15:49	1
Fluorene	ND		0.51	0.12	ug/L		05/10/21 15:52	05/12/21 15:49	1
Naphthalene	**0.50**	**J**	0.51	0.10	ug/L		05/10/21 15:52	05/12/21 15:49	1
Phenanthrene	ND		0.51	0.11	ug/L		05/10/21 15:52	05/12/21 15:49	1
Pyrene	ND		0.51	0.10	ug/L		05/10/21 15:52	05/12/21 15:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*68*		*44 - 102*	*05/10/21 15:52*	*05/12/21 15:49*	*1*
Nitrobenzene-d5 (Surr)	*74*		*23 - 128*	*05/10/21 15:52*	*05/12/21 15:49*	*1*
p-Terphenyl-d14 (Surr)	*34*		*31 - 113*	*05/10/21 15:52*	*05/12/21 15:49*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/05/21 08:53	05/05/21 20:04	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/05/21 08:53	05/05/21 20:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*81*		*28 - 140*	*05/05/21 08:53*	*05/05/21 20:04*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**850**		25	15	ug/L		05/06/21 08:14	05/06/21 15:57	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*77*		*28 - 140*	*05/06/21 08:14*	*05/06/21 15:57*	*5*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND	*+	0.028	0.0095	ug/L		05/05/21 19:45	05/06/21 10:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*108*		*46 - 136*	*05/05/21 19:45*	*05/06/21 10:42*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*108*		*46 - 136*	*05/05/21 19:45*	*05/06/21 10:42*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**17000**		5000	1500	ug/L			05/05/21 22:31	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**50000**		500	96	ug/L		05/05/21 13:58	05/10/21 15:49	1
Iron	**6700**		200	40	ug/L		05/05/21 13:58	05/10/21 15:49	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.088**	**J**	0.52	0.073	ug/L		05/05/21 21:43	05/06/21 12:18	1

Client Sample ID: DUP-5_20210503

Lab Sample ID: 410-38315-2

Date Collected: 05/03/21 00:00

Matrix: Water

Date Received: 05/04/21 19:19

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	140000		8000	8000	ug/L			05/07/21 02:55	1
Total Kjeldahl Nitrogen	760	J	1000	500	ug/L		05/06/21 07:25	05/13/21 14:30	1
Total Carbon	38000		10000	5000	ug/L			05/08/21 19:22	10
Total Organic Carbon	1600		1000	500	ug/L			05/09/21 09:48	1
Total Inorganic Carbon	36000		2000	600	ug/L			05/10/21 15:13	1

Client Sample ID: W-12_SL_20210503

Lab Sample ID: 410-38315-3

Date Collected: 05/03/21 09:45

Matrix: Water

Date Received: 05/04/21 19:19

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/06/21 21:04	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/06/21 21:04	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/06/21 21:04	1
Benzene	ND		1.0	0.20	ug/L			05/06/21 21:04	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/06/21 21:04	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/06/21 21:04	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/06/21 21:04	1
t-Butyl alcohol	ND		50	12	ug/L			05/06/21 21:04	1
Toluene	ND		1.0	0.20	ug/L			05/06/21 21:04	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/06/21 21:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*80 - 120*		*05/06/21 21:04*	*1*
4-Bromofluorobenzene (Surr)	*90*		*80 - 120*		*05/06/21 21:04*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*05/06/21 21:04*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/06/21 21:04*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.51	0.10	ug/L		05/10/21 09:30	05/11/21 01:14	1
Benzo[a]anthracene	ND		0.51	0.10	ug/L		05/10/21 09:30	05/11/21 01:14	1
Benzo[a]pyrene	ND	*+	0.51	0.11	ug/L		05/10/21 09:30	05/11/21 01:14	1
Benzo[b]fluoranthene	ND		0.51	0.10	ug/L		05/10/21 09:30	05/11/21 01:14	1
Benzo[g,h,i]perylene	ND		0.51	0.10	ug/L		05/10/21 09:30	05/11/21 01:14	1
Chrysene	ND		0.51	0.10	ug/L		05/10/21 09:30	05/11/21 01:14	1
Fluorene	ND		0.51	0.12	ug/L		05/10/21 09:30	05/11/21 01:14	1
Naphthalene	ND		0.51	0.10	ug/L		05/10/21 09:30	05/11/21 01:14	1
Phenanthrene	ND		0.51	0.11	ug/L		05/10/21 09:30	05/11/21 01:14	1
Pyrene	ND		0.51	0.10	ug/L		05/10/21 09:30	05/11/21 01:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*82*		*44 - 102*	*05/10/21 09:30*	*05/11/21 01:14*	*1*
Nitrobenzene-d5 (Surr)	*82*		*23 - 128*	*05/10/21 09:30*	*05/11/21 01:14*	*1*
p-Terphenyl-d14 (Surr)	*87*		*31 - 113*	*05/10/21 09:30*	*05/11/21 01:14*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/05/21 08:53	05/05/21 20:21	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/05/21 08:53	05/05/21 20:21	1

Client Sample ID: W-12_SL_20210503

Lab Sample ID: 410-38315-3

Date Collected: 05/03/21 09:45
Date Received: 05/04/21 19:19

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*79*		*28 - 140*	*05/05/21 08:53*	*05/05/21 20:21*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**610**		25	15	ug/L		05/06/21 08:14	05/06/21 16:14	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*70*		*28 - 140*	*05/06/21 08:14*	*05/06/21 16:14*	*5*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND	*+	0.029	0.0098	ug/L		05/05/21 19:45	05/06/21 10:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*106*		*46 - 136*	*05/05/21 19:45*	*05/06/21 10:59*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*106*		*46 - 136*	*05/05/21 19:45*	*05/06/21 10:59*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**57000**	**FH**	5000	1500	ug/L			05/05/21 18:03	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**66000**		500	96	ug/L		05/05/21 13:58	05/10/21 15:36	1
Iron	**1900**		200	40	ug/L		05/05/21 13:58	05/10/21 15:36	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.30**	**J**	0.52	0.073	ug/L		05/05/21 21:43	05/06/21 12:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**190000**		8000	8000	ug/L			05/07/21 02:36	1
Total Kjeldahl Nitrogen	ND	*+	1000	500	ug/L		05/07/21 10:26	05/11/21 09:44	1
Total Carbon	**45000**		10000	5000	ug/L			05/08/21 19:33	10
Total Organic Carbon	**4600**		1000	500	ug/L			05/09/21 11:00	1
Total Inorganic Carbon	**40000**		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: S-447_20210503

Lab Sample ID: 410-38315-4

Date Collected: 05/03/21 11:50
Date Received: 05/04/21 19:19

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**120**		25	5.0	ug/L			05/07/21 01:02	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			05/07/21 01:02	5
1,3,5-Trimethylbenzene	**40**		25	1.5	ug/L			05/07/21 01:02	5
Benzene	**220**		5.0	1.0	ug/L			05/07/21 01:02	5
Ethylbenzene	**310**		5.0	2.0	ug/L			05/07/21 01:02	5
Isopropylbenzene	**15**	**J**	25	1.0	ug/L			05/07/21 01:02	5
Methyl tert-butyl ether	ND		5.0	1.0	ug/L			05/07/21 01:02	5
t-Butyl alcohol	ND		250	60	ug/L			05/07/21 01:02	5

Client Sample ID: S-447_20210503

Date Collected: 05/03/21 11:50
Date Received: 05/04/21 19:19

Lab Sample ID: 410-38315-4

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	**450**		5.0	1.0	ug/L			05/07/21 01:02	5
Xylenes, Total	**710**		30	7.0	ug/L			05/07/21 01:02	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*83*		*80 - 120*		*05/07/21 01:02*	*5*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*05/07/21 01:02*	*5*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*05/07/21 01:02*	*5*
Toluene-d8 (Surr)	*97*		*80 - 120*		*05/07/21 01:02*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.51	0.10	ug/L		05/10/21 09:30	05/11/21 01:42	1
Benzo[a]anthracene	ND		0.51	0.10	ug/L		05/10/21 09:30	05/11/21 01:42	1
Benzo[a]pyrene	ND	*+	0.51	0.11	ug/L		05/10/21 09:30	05/11/21 01:42	1
Benzo[b]fluoranthene	ND		0.51	0.10	ug/L		05/10/21 09:30	05/11/21 01:42	1
Benzo[g,h,i]perylene	ND		0.51	0.10	ug/L		05/10/21 09:30	05/11/21 01:42	1
Chrysene	ND		0.51	0.10	ug/L		05/10/21 09:30	05/11/21 01:42	1
Fluorene	ND		0.51	0.12	ug/L		05/10/21 09:30	05/11/21 01:42	1
Naphthalene	**31**		0.51	0.10	ug/L		05/10/21 09:30	05/11/21 01:42	1
Phenanthrene	ND		0.51	0.11	ug/L		05/10/21 09:30	05/11/21 01:42	1
Pyrene	ND		0.51	0.10	ug/L		05/10/21 09:30	05/11/21 01:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*73*		*44 - 102*	*05/10/21 09:30*	*05/11/21 01:42*	*1*
Nitrobenzene-d5 (Surr)	*71*		*23 - 128*	*05/10/21 09:30*	*05/11/21 01:42*	*1*
p-Terphenyl-d14 (Surr)	*36*		*31 - 113*	*05/10/21 09:30*	*05/11/21 01:42*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**6.2**		5.0	1.0	ug/L		05/05/21 08:53	05/05/21 20:54	1
Ethene (1C)	**1.3**	**J**	5.0	1.0	ug/L		05/05/21 08:53	05/05/21 20:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*75*		*28 - 140*	*05/05/21 08:53*	*05/05/21 20:54*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**15000**		1000	600	ug/L		05/06/21 08:14	05/06/21 16:31	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*82*		*28 - 140*	*05/06/21 08:14*	*05/06/21 16:31*	*200*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND	*+	0.029	0.0098	ug/L		05/05/21 19:45	05/06/21 11:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*122*		*46 - 136*	*05/05/21 19:45*	*05/06/21 11:15*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*108*		*46 - 136*	*05/05/21 19:45*	*05/06/21 11:15*	*1*

Client Sample ID: S-447_20210503

Lab Sample ID: 410-38315-4

Date Collected: 05/03/21 11:50
Matrix: Water
Date Received: 05/04/21 19:19

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			05/05/21 18:33	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**35000**		500	96	ug/L		05/05/21 13:58	05/10/21 15:26	1
Iron	**42000**		200	40	ug/L		05/05/21 13:58	05/10/21 15:26	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/05/21 21:43	05/06/21 12:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**240000**		8000	8000	ug/L			05/07/21 01:35	1
Total Kjeldahl Nitrogen	**2500**		1000	500	ug/L		05/06/21 07:25	05/13/21 14:32	1
Total Carbon	**78000**		10000	5000	ug/L			05/08/21 19:44	10
Total Organic Carbon	**19000**		1000	500	ug/L			05/09/21 11:14	1
Total Inorganic Carbon	**59000**		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: W-13_20210503

Lab Sample ID: 410-38315-5

Date Collected: 05/03/21 12:15
Matrix: Water
Date Received: 05/04/21 19:19

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/06/21 21:28	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/06/21 21:28	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/06/21 21:28	1
Benzene	ND		1.0	0.20	ug/L			05/06/21 21:28	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/06/21 21:28	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/06/21 21:28	1
Methyl tert-butyl ether	**0.49**	**J**	1.0	0.20	ug/L			05/06/21 21:28	1
t-Butyl alcohol	**18**	**J**	50	12	ug/L			05/06/21 21:28	1
Toluene	ND		1.0	0.20	ug/L			05/06/21 21:28	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/06/21 21:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*85*		*80 - 120*		*05/06/21 21:28*	*1*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*05/06/21 21:28*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*05/06/21 21:28*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*05/06/21 21:28*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/10/21 09:30	05/11/21 02:10	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/10/21 09:30	05/11/21 02:10	1
Benzo[a]pyrene	ND	*+	0.50	0.11	ug/L		05/10/21 09:30	05/11/21 02:10	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/10/21 09:30	05/11/21 02:10	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/10/21 09:30	05/11/21 02:10	1
Chrysene	ND		0.50	0.10	ug/L		05/10/21 09:30	05/11/21 02:10	1
Fluorene	ND		0.50	0.12	ug/L		05/10/21 09:30	05/11/21 02:10	1

Client Sample ID: W-13_20210503
Date Collected: 05/03/21 12:15
Date Received: 05/04/21 19:19

Lab Sample ID: 410-38315-5
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.50	0.10	ug/L		05/10/21 09:30	05/11/21 02:10	1
Phenanthrene	ND		0.50	0.11	ug/L		05/10/21 09:30	05/11/21 02:10	1
Pyrene	ND		0.50	0.10	ug/L		05/10/21 09:30	05/11/21 02:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*77*		*44 - 102*	*05/10/21 09:30*	*05/11/21 02:10*	*1*
Nitrobenzene-d5 (Surr)	*47*		*23 - 128*	*05/10/21 09:30*	*05/11/21 02:10*	*1*
p-Terphenyl-d14 (Surr)	*65*		*31 - 113*	*05/10/21 09:30*	*05/11/21 02:10*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/05/21 08:53	05/05/21 21:11	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/05/21 08:53	05/05/21 21:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*70*		*28 - 140*	*05/05/21 08:53*	*05/05/21 21:11*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**34000**		1000	600	ug/L		05/06/21 08:14	05/06/21 16:48	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*95*		*28 - 140*	*05/06/21 08:14*	*05/06/21 16:48*	*200*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND	*+	0.029	0.0097	ug/L		05/05/21 19:45	05/06/21 11:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*109*		*46 - 136*	*05/05/21 19:45*	*05/06/21 11:32*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*109*		*46 - 136*	*05/05/21 19:45*	*05/06/21 11:32*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			05/05/21 18:53	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**97000**		500	96	ug/L		05/05/21 13:58	05/10/21 15:42	1
Iron	**70000**		200	40	ug/L		05/05/21 13:58	05/10/21 15:42	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/05/21 21:43	05/06/21 12:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**520000**		8000	8000	ug/L			05/07/21 02:24	1
Total Kjeldahl Nitrogen	ND	*+	1000	500	ug/L		05/07/21 10:26	05/11/21 09:42	1
Total Carbon	**140000**		10000	5000	ug/L			05/08/21 19:54	10
Total Organic Carbon	**13000**		1000	500	ug/L			05/09/21 11:28	1
Total Inorganic Carbon	**130000**		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: W-32D_20210503

Date Collected: 05/03/21 13:10
Date Received: 05/04/21 19:19

Lab Sample ID: 410-38315-6

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/06/21 21:52	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/06/21 21:52	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/06/21 21:52	1
Benzene	**1.0**		1.0	0.20	ug/L			05/06/21 21:52	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/06/21 21:52	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/06/21 21:52	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/06/21 21:52	1
t-Butyl alcohol	**66**		50	12	ug/L			05/06/21 21:52	1
Toluene	ND		1.0	0.20	ug/L			05/06/21 21:52	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/06/21 21:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*85*		*80 - 120*		*05/06/21 21:52*	*1*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*05/06/21 21:52*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*05/06/21 21:52*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/06/21 21:52*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**0.28**	**J**	0.53	0.11	ug/L		05/10/21 09:30	05/11/21 13:53	1
Benzo[a]anthracene	**0.36**	**J**	0.53	0.11	ug/L		05/10/21 09:30	05/11/21 13:53	1
Benzo[a]pyrene	**0.38**	**J *+**	0.53	0.12	ug/L		05/10/21 09:30	05/11/21 13:53	1
Benzo[b]fluoranthene	ND		0.53	0.11	ug/L		05/10/21 09:30	05/11/21 13:53	1
Benzo[g,h,i]perylene	ND		0.53	0.11	ug/L		05/10/21 09:30	05/11/21 13:53	1
Chrysene	**0.48**	**J**	0.53	0.11	ug/L		05/10/21 09:30	05/11/21 13:53	1
Fluorene	**0.50**	**J**	0.53	0.13	ug/L		05/10/21 09:30	05/11/21 13:53	1
Naphthalene	ND		0.53	0.11	ug/L		05/10/21 09:30	05/11/21 13:53	1
Phenanthrene	**0.27**	**J**	0.53	0.12	ug/L		05/10/21 09:30	05/11/21 13:53	1
Pyrene	**1.1**		0.53	0.11	ug/L		05/10/21 09:30	05/11/21 13:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*75*		*44 - 102*	*05/10/21 09:30*	*05/11/21 13:53*	*1*
Nitrobenzene-d5 (Surr)	*79*		*23 - 128*	*05/10/21 09:30*	*05/11/21 13:53*	*1*
p-Terphenyl-d14 (Surr)	*63*		*31 - 113*	*05/10/21 09:30*	*05/11/21 13:53*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/05/21 08:53	05/05/21 21:28	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/05/21 08:53	05/05/21 21:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*74*		*28 - 140*	*05/05/21 08:53*	*05/05/21 21:28*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**22000**		1000	600	ug/L		05/06/21 08:14	05/06/21 17:05	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*90*		*28 - 140*	*05/06/21 08:14*	*05/06/21 17:05*	*200*

Client Sample ID: W-32D_20210503

Lab Sample ID: 410-38315-6

Date Collected: 05/03/21 13:10

Matrix: Water

Date Received: 05/04/21 19:19

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND	*+	0.029	0.0097	ug/L		05/05/21 19:45	05/06/21 11:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*112*		*46 - 136*	*05/05/21 19:45*	*05/06/21 11:49*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*112*		*46 - 136*	*05/05/21 19:45*	*05/06/21 11:49*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**2200**	**J**	5000	1500	ug/L			05/05/21 19:03	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**78000**		500	96	ug/L		05/05/21 13:58	05/10/21 15:23	1
Iron	**220000**		200	40	ug/L		05/05/21 13:58	05/10/21 15:23	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/05/21 21:43	05/06/21 12:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**410000**		8000	8000	ug/L			05/07/21 01:13	1
Total Kjeldahl Nitrogen	**41000**		20000	10000	ug/L		05/06/21 07:25	05/13/21 14:45	20
Total Carbon	**110000**		10000	5000	ug/L			05/08/21 20:05	10
Total Organic Carbon	**18000**		1000	500	ug/L			05/09/21 11:42	1
Total Inorganic Carbon	**92000**		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: RW-708_20210503

Lab Sample ID: 410-38315-7

Date Collected: 05/03/21 14:55

Matrix: Water

Date Received: 05/04/21 19:19

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**160**		5.0	1.0	ug/L			05/06/21 22:16	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/06/21 22:16	1
1,3,5-Trimethylbenzene	**92**		5.0	0.30	ug/L			05/06/21 22:16	1
Benzene	**99**		1.0	0.20	ug/L			05/06/21 22:16	1
Ethylbenzene	**50**		1.0	0.40	ug/L			05/06/21 22:16	1
Isopropylbenzene	**2.2**	**J**	5.0	0.20	ug/L			05/06/21 22:16	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/06/21 22:16	1
t-Butyl alcohol	**37**	**J**	50	12	ug/L			05/06/21 22:16	1
Toluene	**9.4**		1.0	0.20	ug/L			05/06/21 22:16	1
Xylenes, Total	**470**		6.0	1.4	ug/L			05/06/21 22:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*81*		*80 - 120*		*05/06/21 22:16*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*05/06/21 22:16*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*05/06/21 22:16*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*05/06/21 22:16*	*1*

Client Sample ID: RW-708_20210503

Date Collected: 05/03/21 14:55
Date Received: 05/04/21 19:19

Lab Sample ID: 410-38315-7

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.51	0.10	ug/L		05/10/21 09:30	05/11/21 03:07	1
Benzo[a]anthracene	ND		0.51	0.10	ug/L		05/10/21 09:30	05/11/21 03:07	1
Benzo[a]pyrene	ND	*+	0.51	0.11	ug/L		05/10/21 09:30	05/11/21 03:07	1
Benzo[b]fluoranthene	ND		0.51	0.10	ug/L		05/10/21 09:30	05/11/21 03:07	1
Benzo[g,h,i]perylene	ND		0.51	0.10	ug/L		05/10/21 09:30	05/11/21 03:07	1
Chrysene	ND		0.51	0.10	ug/L		05/10/21 09:30	05/11/21 03:07	1
Fluorene	**0.97**		0.51	0.12	ug/L		05/10/21 09:30	05/11/21 03:07	1
Naphthalene	ND		0.51	0.10	ug/L		05/10/21 09:30	05/11/21 03:07	1
Phenanthrene	**0.48**	**J**	0.51	0.11	ug/L		05/10/21 09:30	05/11/21 03:07	1
Pyrene	**0.19**	**J**	0.51	0.10	ug/L		05/10/21 09:30	05/11/21 03:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*73*		*44 - 102*	*05/10/21 09:30*	*05/11/21 03:07*	*1*
Nitrobenzene-d5 (Surr)	*78*		*23 - 128*	*05/10/21 09:30*	*05/11/21 03:07*	*1*
p-Terphenyl-d14 (Surr)	*53*		*31 - 113*	*05/10/21 09:30*	*05/11/21 03:07*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/05/21 08:53	05/05/21 21:45	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/05/21 08:53	05/05/21 21:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*81*		*28 - 140*	*05/05/21 08:53*	*05/05/21 21:45*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**8000**		250	150	ug/L		05/06/21 08:24	05/06/21 15:32	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*110*		*28 - 140*	*05/06/21 08:24*	*05/06/21 15:32*	*50*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND	*+	0.029	0.0097	ug/L		05/05/21 19:45	05/06/21 12:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*141*	*S1+*	*46 - 136*	*05/05/21 19:45*	*05/06/21 12:06*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*121*		*46 - 136*	*05/05/21 19:45*	*05/06/21 12:06*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			05/05/21 19:13	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**54000**		500	96	ug/L		05/05/21 13:58	05/10/21 15:39	1
Iron	**11000**		200	40	ug/L		05/05/21 13:58	05/10/21 15:39	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.24**	**J**	0.52	0.073	ug/L		05/05/21 21:43	05/06/21 12:20	1

Client Sample ID: RW-708_20210503

Lab Sample ID: 410-38315-7

Date Collected: 05/03/21 14:55
Matrix: Water
Date Received: 05/04/21 19:19

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	190000		8000	8000	ug/L			05/07/21 02:43	1
Total Kjeldahl Nitrogen	2000		1000	500	ug/L		05/06/21 07:25	05/12/21 14:54	1
Total Carbon	39000		10000	5000	ug/L			05/08/21 20:38	10
Total Organic Carbon	4500		1000	500	ug/L			05/09/21 11:56	1
Total Inorganic Carbon	35000		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: S-114SRTF_20210503

Lab Sample ID: 410-38315-8

Date Collected: 05/03/21 12:15
Matrix: Water
Date Received: 05/04/21 19:19

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	1100		50	10	ug/L			05/07/21 01:26	10
1,2-Dichloroethane	ND		10	3.0	ug/L			05/07/21 01:26	10
1,3,5-Trimethylbenzene	350		50	3.0	ug/L			05/07/21 01:26	10
Ethylbenzene	1000		10	4.0	ug/L			05/07/21 01:26	10
Isopropylbenzene	89		50	2.0	ug/L			05/07/21 01:26	10
Methyl tert-butyl ether	5.9	J	10	2.0	ug/L			05/07/21 01:26	10
t-Butyl alcohol	ND		500	120	ug/L			05/07/21 01:26	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*82*		*80 - 120*		*05/07/21 01:26*	*10*
4-Bromofluorobenzene (Surr)	*89*		*80 - 120*		*05/07/21 01:26*	*10*
Dibromofluoromethane (Surr)	*100*		*80 - 120*		*05/07/21 01:26*	*10*
Toluene-d8 (Surr)	*98*		*80 - 120*		*05/07/21 01:26*	*10*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2200		100	20	ug/L			05/07/21 01:50	100
Toluene	7400		100	20	ug/L			05/07/21 01:50	100
Xylenes, Total	8400		600	140	ug/L			05/07/21 01:50	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*83*		*80 - 120*		*05/07/21 01:50*	*100*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*05/07/21 01:50*	*100*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*05/07/21 01:50*	*100*
Toluene-d8 (Surr)	*99*		*80 - 120*		*05/07/21 01:50*	*100*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.51	0.10	ug/L		05/10/21 09:30	05/11/21 03:35	1
Benzo[a]anthracene	ND		0.51	0.10	ug/L		05/10/21 09:30	05/11/21 03:35	1
Benzo[a]pyrene	ND	*+	0.51	0.11	ug/L		05/10/21 09:30	05/11/21 03:35	1
Benzo[b]fluoranthene	ND		0.51	0.10	ug/L		05/10/21 09:30	05/11/21 03:35	1
Benzo[g,h,i]perylene	ND		0.51	0.10	ug/L		05/10/21 09:30	05/11/21 03:35	1
Chrysene	ND		0.51	0.10	ug/L		05/10/21 09:30	05/11/21 03:35	1
Fluorene	0.44	J	0.51	0.12	ug/L		05/10/21 09:30	05/11/21 03:35	1
Phenanthrene	0.30	J	0.51	0.11	ug/L		05/10/21 09:30	05/11/21 03:35	1
Pyrene	ND		0.51	0.10	ug/L		05/10/21 09:30	05/11/21 03:35	1

Client Sample ID: S-114SRTF_20210503

Date Collected: 05/03/21 12:15
Date Received: 05/04/21 19:19

Lab Sample ID: 410-38315-8

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*73*		*44 - 102*	*05/10/21 09:30*	*05/11/21 03:35*	*1*
Nitrobenzene-d5 (Surr)	*56*		*23 - 128*	*05/10/21 09:30*	*05/11/21 03:35*	*1*
p-Terphenyl-d14 (Surr)	*64*		*31 - 113*	*05/10/21 09:30*	*05/11/21 03:35*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**200**		2.5	0.51	ug/L		05/10/21 09:30	05/11/21 14:21	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*82*		*44 - 102*	*05/10/21 09:30*	*05/11/21 14:21*	*5*
Nitrobenzene-d5 (Surr)	*61*		*23 - 128*	*05/10/21 09:30*	*05/11/21 14:21*	*5*
p-Terphenyl-d14 (Surr)	*69*		*31 - 113*	*05/10/21 09:30*	*05/11/21 14:21*	*5*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**5.4**		5.0	1.0	ug/L		05/05/21 08:53	05/05/21 22:02	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/05/21 08:53	05/05/21 22:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*74*		*28 - 140*	*05/05/21 08:53*	*05/05/21 22:02*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**11000**		250	150	ug/L		05/06/21 08:24	05/06/21 15:50	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*108*		*28 - 140*	*05/06/21 08:24*	*05/06/21 15:50*	*50*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND	*+	0.029	0.0097	ug/L		05/05/21 19:45	05/06/21 13:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*156*	*S1+*	*46 - 136*	*05/05/21 19:45*	*05/06/21 13:12*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*136*		*46 - 136*	*05/05/21 19:45*	*05/06/21 13:12*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**31000**	**J ^c**	50000	15000	ug/L			05/05/21 19:54	50

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**97000**		500	96	ug/L		05/05/21 13:58	05/10/21 15:55	1
Iron	**63000**		200	40	ug/L		05/05/21 13:58	05/10/21 15:55	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**1.7**		0.52	0.073	ug/L		05/05/21 21:43	05/06/21 12:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**370000**		8000	8000	ug/L			05/07/21 02:06	1
Total Kjeldahl Nitrogen	**7200**		1000	500	ug/L		05/06/21 07:25	05/13/21 14:22	1

Client Sample ID: S-114SRTF_20210503

Lab Sample ID: 410-38315-8

Date Collected: 05/03/21 12:15

Matrix: Water

Date Received: 05/04/21 19:19

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Carbon	**150000**		10000	5000	ug/L			05/08/21 20:48	10
Total Organic Carbon	**24000**		1000	500	ug/L			05/09/21 12:11	1
Total Inorganic Carbon	**130000**		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: S-115DSRTF_20210503

Lab Sample ID: 410-38315-9

Date Collected: 05/03/21 13:05

Matrix: Water

Date Received: 05/04/21 19:19

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/06/21 22:39	1
1,2-Dichloroethane	**0.36**	**J**	1.0	0.30	ug/L			05/06/21 22:39	1
1,3,5-Trimethylbenzene	**0.35**	**J**	5.0	0.30	ug/L			05/06/21 22:39	1
Benzene	**1.8**		1.0	0.20	ug/L			05/06/21 22:39	1
Ethylbenzene	**0.58**	**J**	1.0	0.40	ug/L			05/06/21 22:39	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/06/21 22:39	1
Methyl tert-butyl ether	**23**		1.0	0.20	ug/L			05/06/21 22:39	1
t-Butyl alcohol	ND		50	12	ug/L			05/06/21 22:39	1
Toluene	**4.4**		1.0	0.20	ug/L			05/06/21 22:39	1
Xylenes, Total	**5.2**	**J**	6.0	1.4	ug/L			05/06/21 22:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*85*		*80 - 120*		*05/06/21 22:39*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*05/06/21 22:39*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*05/06/21 22:39*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/06/21 22:39*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/10/21 09:30	05/11/21 04:04	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/10/21 09:30	05/11/21 04:04	1
Benzo[a]pyrene	ND	*+	0.50	0.11	ug/L		05/10/21 09:30	05/11/21 04:04	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/10/21 09:30	05/11/21 04:04	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/10/21 09:30	05/11/21 04:04	1
Chrysene	ND		0.50	0.10	ug/L		05/10/21 09:30	05/11/21 04:04	1
Fluorene	ND		0.50	0.12	ug/L		05/10/21 09:30	05/11/21 04:04	1
Naphthalene	ND		0.50	0.10	ug/L		05/10/21 09:30	05/11/21 04:04	1
Phenanthrene	ND		0.50	0.11	ug/L		05/10/21 09:30	05/11/21 04:04	1
Pyrene	ND		0.50	0.10	ug/L		05/10/21 09:30	05/11/21 04:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*75*		*44 - 102*	*05/10/21 09:30*	*05/11/21 04:04*	*1*
Nitrobenzene-d5 (Surr)	*79*		*23 - 128*	*05/10/21 09:30*	*05/11/21 04:04*	*1*
p-Terphenyl-d14 (Surr)	*74*		*31 - 113*	*05/10/21 09:30*	*05/11/21 04:04*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**5.1**		5.0	1.0	ug/L		05/05/21 08:53	05/05/21 22:19	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/05/21 08:53	05/05/21 22:19	1
Methane (1C)	**73**		5.0	3.0	ug/L		05/05/21 08:53	05/05/21 22:19	1

Client Sample ID: S-115DSRTF_20210503

Lab Sample ID: 410-38315-9

Date Collected: 05/03/21 13:05

Matrix: Water

Date Received: 05/04/21 19:19

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Propene (1C)	69		28 - 140	05/05/21 08:53	05/05/21 22:19	1

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND	*+	0.029	0.0097	ug/L		05/05/21 19:45	05/06/21 13:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane (Surr) (1C)	107		46 - 136	05/05/21 19:45	05/06/21 13:29	1
1,1,2,2-Tetrachloroethane (Surr) (2C)	106		46 - 136	05/05/21 19:45	05/06/21 13:29	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**110000**		50000	15000	ug/L			05/06/21 14:56	50

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**160000**		500	96	ug/L		05/05/21 13:58	05/10/21 15:59	1
Iron	**29000**		200	40	ug/L		05/05/21 13:58	05/10/21 15:59	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/05/21 21:43	05/06/21 11:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**680000**		8000	8000	ug/L			05/07/21 01:59	1
Total Kjeldahl Nitrogen	**25000**		10000	5000	ug/L		05/06/21 07:25	05/13/21 14:43	10
Total Carbon	**160000**		10000	5000	ug/L			05/08/21 20:59	10
Total Organic Carbon	**14000**		1000	500	ug/L			05/09/21 12:26	1
Total Inorganic Carbon	**150000**		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: S-118DSTRF_20210503

Lab Sample ID: 410-38315-10

Date Collected: 05/03/21 14:50

Matrix: Water

Date Received: 05/04/21 19:19

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/06/21 23:03	1
1,2-Dichloroethane	**0.31**	**J**	1.0	0.30	ug/L			05/06/21 23:03	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/06/21 23:03	1
Benzene	**0.70**	**J**	1.0	0.20	ug/L			05/06/21 23:03	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/06/21 23:03	1
Isopropylbenzene	**0.28**	**J**	5.0	0.20	ug/L			05/06/21 23:03	1
Methyl tert-butyl ether	**81**		1.0	0.20	ug/L			05/06/21 23:03	1
t-Butyl alcohol	**25**	**J**	50	12	ug/L			05/06/21 23:03	1
Toluene	**1.7**		1.0	0.20	ug/L			05/06/21 23:03	1
Xylenes, Total	**2.4**	**J**	6.0	1.4	ug/L			05/06/21 23:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		80 - 120		05/06/21 23:03	1
4-Bromofluorobenzene (Surr)	93		80 - 120		05/06/21 23:03	1
Dibromofluoromethane (Surr)	101		80 - 120		05/06/21 23:03	1

Client Sample ID: S-118DSTRF_20210503

Date Collected: 05/03/21 14:50
Date Received: 05/04/21 19:19

Lab Sample ID: 410-38315-10

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/06/21 23:03*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/10/21 09:30	05/11/21 04:32	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/10/21 09:30	05/11/21 04:32	1
Benzo[a]pyrene	ND	*+	0.50	0.11	ug/L		05/10/21 09:30	05/11/21 04:32	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/10/21 09:30	05/11/21 04:32	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/10/21 09:30	05/11/21 04:32	1
Chrysene	ND		0.50	0.10	ug/L		05/10/21 09:30	05/11/21 04:32	1
Fluorene	ND		0.50	0.12	ug/L		05/10/21 09:30	05/11/21 04:32	1
Naphthalene	ND		0.50	0.10	ug/L		05/10/21 09:30	05/11/21 04:32	1
Phenanthrene	ND		0.50	0.11	ug/L		05/10/21 09:30	05/11/21 04:32	1
Pyrene	ND		0.50	0.10	ug/L		05/10/21 09:30	05/11/21 04:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	*73*		*44 - 102*	*05/10/21 09:30*	*05/11/21 04:32*	*1*
Nitrobenzene-d5 (Surr)	*78*		*23 - 128*	*05/10/21 09:30*	*05/11/21 04:32*	*1*
p-Terphenyl-d14 (Surr)	*77*		*31 - 113*	*05/10/21 09:30*	*05/11/21 04:32*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**5.7**		5.0	1.0	ug/L		05/05/21 08:53	05/05/21 22:36	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/05/21 08:53	05/05/21 22:36	1
Methane (1C)	**59**		5.0	3.0	ug/L		05/05/21 08:53	05/05/21 22:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Propene (1C)	*69*		*28 - 140*	*05/05/21 08:53*	*05/05/21 22:36*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND	*+	0.029	0.0098	ug/L		05/05/21 19:45	05/06/21 13:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane (Surr) (1C)	*106*		*46 - 136*	*05/05/21 19:45*	*05/06/21 13:46*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*106*		*46 - 136*	*05/05/21 19:45*	*05/06/21 13:46*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**86000**		50000	15000	ug/L			05/06/21 15:06	50

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**140000**		500	96	ug/L		05/05/21 13:58	05/10/21 15:52	1
Iron	**27000**		200	40	ug/L		05/05/21 13:58	05/10/21 15:52	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/05/21 21:43	05/06/21 12:16	1

Client Sample ID: S-118DSTRF_20210503

Lab Sample ID: 410-38315-10

Date Collected: 05/03/21 14:50
Matrix: Water
Date Received: 05/04/21 19:19

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	730000		8000	8000	ug/L			05/07/21 01:50	1
Total Kjeldahl Nitrogen	15000		5000	2500	ug/L		05/06/21 07:25	05/13/21 14:47	5
Total Carbon	180000		10000	5000	ug/L			05/08/21 21:10	10
Total Organic Carbon	20000		1000	500	ug/L			05/09/21 12:40	1
Total Inorganic Carbon	160000		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: W-1_SL_20210503

Lab Sample ID: 410-38315-11

Date Collected: 05/03/21 14:25
Matrix: Water
Date Received: 05/04/21 19:19

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/06/21 23:27	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/06/21 23:27	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/06/21 23:27	1
Benzene	ND		1.0	0.20	ug/L			05/06/21 23:27	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/06/21 23:27	1
Isopropylbenzene	0.38	J	5.0	0.20	ug/L			05/06/21 23:27	1
Methyl tert-butyl ether	0.39	J	1.0	0.20	ug/L			05/06/21 23:27	1
t-Butyl alcohol	ND		50	12	ug/L			05/06/21 23:27	1
Toluene	ND		1.0	0.20	ug/L			05/06/21 23:27	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/06/21 23:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*83*		*80 - 120*		*05/06/21 23:27*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*05/06/21 23:27*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*05/06/21 23:27*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*05/06/21 23:27*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	0.21	J	0.50	0.10	ug/L		05/10/21 09:30	05/11/21 05:00	1
Benzo[a]anthracene	0.15	J	0.50	0.10	ug/L		05/10/21 09:30	05/11/21 05:00	1
Benzo[a]pyrene	ND	*+	0.50	0.11	ug/L		05/10/21 09:30	05/11/21 05:00	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/10/21 09:30	05/11/21 05:00	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/10/21 09:30	05/11/21 05:00	1
Chrysene	0.27	J	0.50	0.10	ug/L		05/10/21 09:30	05/11/21 05:00	1
Fluorene	0.82		0.50	0.12	ug/L		05/10/21 09:30	05/11/21 05:00	1
Naphthalene	ND		0.50	0.10	ug/L		05/10/21 09:30	05/11/21 05:00	1
Phenanthrene	0.27	J	0.50	0.11	ug/L		05/10/21 09:30	05/11/21 05:00	1
Pyrene	0.62		0.50	0.10	ug/L		05/10/21 09:30	05/11/21 05:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*55*		*44 - 102*	*05/10/21 09:30*	*05/11/21 05:00*	*1*
Nitrobenzene-d5 (Surr)	*58*		*23 - 128*	*05/10/21 09:30*	*05/11/21 05:00*	*1*
p-Terphenyl-d14 (Surr)	*61*		*31 - 113*	*05/10/21 09:30*	*05/11/21 05:00*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/05/21 08:53	05/05/21 22:53	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/05/21 08:53	05/05/21 22:53	1

Client Sample ID: W-1_SL_20210503

Lab Sample ID: 410-38315-11

Date Collected: 05/03/21 14:25

Matrix: Water

Date Received: 05/04/21 19:19

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*73*		*28 - 140*	*05/05/21 08:53*	*05/05/21 22:53*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**21000**		500	300	ug/L		05/06/21 08:24	05/06/21 16:08	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*107*		*28 - 140*	*05/06/21 08:24*	*05/06/21 16:08*	*100*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND	*+	0.029	0.0098	ug/L		05/05/21 19:45	05/06/21 14:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*109*		*46 - 136*	*05/05/21 19:45*	*05/06/21 14:02*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*111*		*46 - 136*	*05/05/21 19:45*	*05/06/21 14:02*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			05/06/21 15:16	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**93000**		500	96	ug/L		05/05/21 13:58	05/10/21 15:46	1
Iron	**20000**		200	40	ug/L		05/05/21 13:58	05/10/21 15:46	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/05/21 21:43	05/06/21 12:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**340000**		8000	8000	ug/L			05/07/21 02:30	1
Total Kjeldahl Nitrogen	**5200**		1000	500	ug/L		05/06/21 07:25	05/13/21 14:18	1
Total Carbon	**90000**		25000	13000	ug/L			05/08/21 21:20	25
Total Organic Carbon	**6500**		1000	500	ug/L			05/09/21 12:54	1
Total Inorganic Carbon	**84000**		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: TB_20210504

Lab Sample ID: 410-38315-12

Date Collected: 05/04/21 00:00

Matrix: Water

Date Received: 05/04/21 19:19

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/06/21 23:51	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/06/21 23:51	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/06/21 23:51	1
Benzene	ND		1.0	0.20	ug/L			05/06/21 23:51	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/06/21 23:51	1
Ethylene Dibromide	ND		1.0	0.20	ug/L			05/06/21 23:51	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/06/21 23:51	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/06/21 23:51	1

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38315-1

Client Sample ID: TB_20210504
Date Collected: 05/04/21 00:00
Date Received: 05/04/21 19:19

Lab Sample ID: 410-38315-12
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND	^c *-	5.0	1.0	ug/L			05/06/21 23:51	1
t-Butyl alcohol	ND		50	12	ug/L			05/06/21 23:51	1
Toluene	ND		1.0	0.20	ug/L			05/06/21 23:51	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/06/21 23:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*85*		*80 - 120*		*05/06/21 23:51*	*1*
4-Bromofluorobenzene (Surr)	*90*		*80 - 120*		*05/06/21 23:51*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*05/06/21 23:51*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/06/21 23:51*	*1*

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38315-1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-38315-1	S-38_20210503	82	94	101	102
410-38315-2	DUP-5_20210503	85	92	104	102
410-38315-3	W-12_SL_20210503	86	90	104	101
410-38315-4	S-447_20210503	83	91	101	97
410-38315-5	W-13_20210503	85	92	104	97
410-38315-6	W-32D_20210503	85	92	104	100
410-38315-7	RW-708_20210503	81	95	102	99
410-38315-8	S-114SRTF_20210503	82	89	100	98
410-38315-8 - DL	S-114SRTF_20210503	83	95	102	99
410-38315-9	S-115DSRTF_20210503	85	93	104	101
410-38315-10	S-118DSTRF_20210503	83	93	101	100
410-38315-11	W-1_SL_20210503	83	95	103	98
410-38315-12	TB_20210504	85	90	103	100
LCS 410-123230/4	Lab Control Sample	86	93	102	99
LCSD 410-123230/5	Lab Control Sample Dup	86	95	101	100
MB 410-123230/6	Method Blank	85	94	103	100

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(44-102)	(23-128)	(31-113)
410-38315-1	S-38_20210503	73	75	35
410-38315-2	DUP-5_20210503	68	74	34
410-38315-3	W-12_SL_20210503	82	82	87
410-38315-4	S-447_20210503	73	71	36
410-38315-5	W-13_20210503	77	47	65
410-38315-6	W-32D_20210503	75	79	63
410-38315-7	RW-708_20210503	73	78	53
410-38315-8	S-114SRTF_20210503	73	56	64
410-38315-8 - DL	S-114SRTF_20210503	82	61	69
410-38315-9	S-115DSRTF_20210503	75	79	74
410-38315-10	S-118DSTRF_20210503	73	78	77
410-38315-11	W-1_SL_20210503	55	58	61
LCS 410-124235/2-A	Lab Control Sample	77	82	92
LCS 410-124523/2-A	Lab Control Sample	84	82	87
MB 410-124235/1-A	Method Blank	81	82	97
MB 410-124523/1-A	Method Blank	74	85	94

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38315-1

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)										
Lab Sample ID	Client Sample ID	Propene1 (28-140)										
410-38315-1	S-38_20210503	78										
410-38315-1 - DL	S-38_20210503	85										
410-38315-2	DUP-5_20210503	81										
410-38315-2 - DL	DUP-5_20210503	77										
410-38315-3	W-12_SL_20210503	79										
410-38315-3 - DL	W-12_SL_20210503	70										
410-38315-4	S-447_20210503	75										
410-38315-4 - DL	S-447_20210503	82										
410-38315-5	W-13_20210503	70										
410-38315-5 - DL	W-13_20210503	95										
410-38315-6	W-32D_20210503	74										
410-38315-6 - DL	W-32D_20210503	90										
410-38315-7	RW-708_20210503	81										
410-38315-7 - DL	RW-708_20210503	110										
410-38315-8	S-114SRTF_20210503	74										
410-38315-8 - DL	S-114SRTF_20210503	108										
410-38315-9	S-115DSRTF_20210503	69										
410-38315-10	S-118DSTRF_20210503	69										
410-38315-11	W-1_SL_20210503	73										
410-38315-11 - DL	W-1_SL_20210503	107										
LCS 410-122667/2-A	Lab Control Sample	102										
LCS 410-123134/2-A	Lab Control Sample	95										
LCS 410-123141/2-A	Lab Control Sample	112										
LCSD 410-122667/3-A	Lab Control Sample Dup	90										
LCSD 410-123134/3-A	Lab Control Sample Dup	97										
LCSD 410-123141/3-A	Lab Control Sample Dup	106										
MB 410-122667/1-A	Method Blank	94										
MB 410-123134/1-A	Method Blank	95										
MB 410-123141/1-A	Method Blank	114										

Surrogate Legend

Propene = Propene

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)										
Lab Sample ID	Client Sample ID	1122TCA1 (46-136)	1122TCA2 (46-136)									
410-38315-1	S-38_20210503	108	105									
410-38315-2	DUP-5_20210503	108	108									
410-38315-3	W-12_SL_20210503	106	106									
410-38315-4	S-447_20210503	122	108									
410-38315-5	W-13_20210503	109	109									
410-38315-6	W-32D_20210503	112	112									
410-38315-7	RW-708_20210503	141 S1+	121									
410-38315-8	S-114SRTF_20210503	156 S1+	136									
410-38315-9	S-115DSRTF_20210503	107	106									
410-38315-10	S-118DSTRF_20210503	106	106									
410-38315-11	W-1_SL_20210503	109	111									
LCS 410-122938/2-A	Lab Control Sample	105	105									

Surrogate Summary

Client: Stantec Consulting Corp.
Job ID: 410-38315-1
Project/Site: Former PES Annual GWS

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Matrix: Water
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)									
		1122TCA1	1122TCA2								
Lab Sample ID	Client Sample ID	(46-136)	(46-136)								
LCSD 410-122938/3-A	Lab Control Sample Dup	100	97								
MB 410-122938/1-A	Method Blank	110	107								

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-123230/6
Matrix: Water
Analysis Batch: 123230

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/06/21 16:38	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/06/21 16:38	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/06/21 16:38	1
Benzene	ND		1.0	0.20	ug/L			05/06/21 16:38	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/06/21 16:38	1
Ethylene Dibromide	ND		1.0	0.20	ug/L			05/06/21 16:38	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/06/21 16:38	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/06/21 16:38	1
Naphthalene	ND		5.0	1.0	ug/L			05/06/21 16:38	1
t-Butyl alcohol	ND		50	12	ug/L			05/06/21 16:38	1
Toluene	ND		1.0	0.20	ug/L			05/06/21 16:38	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/06/21 16:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*85*		*80 - 120*		*05/06/21 16:38*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*05/06/21 16:38*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*05/06/21 16:38*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/06/21 16:38*	*1*

Lab Sample ID: LCS 410-123230/4
Matrix: Water
Analysis Batch: 123230

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	20.0	17.1		ug/L		86	75 - 120
1,2-Dichloroethane	20.0	15.4		ug/L		77	73 - 124
1,3,5-Trimethylbenzene	20.0	17.2		ug/L		86	75 - 120
Benzene	20.0	18.3		ug/L		91	80 - 120
Ethylbenzene	20.0	17.8		ug/L		89	80 - 120
Ethylene Dibromide	20.0	18.0		ug/L		90	77 - 120
Isopropylbenzene	20.0	17.9		ug/L		90	80 - 120
Methyl tert-butyl ether	20.0	15.9		ug/L		80	69 - 122
Naphthalene	20.0	12.6		ug/L		63	53 - 124
t-Butyl alcohol	200	186		ug/L		93	60 - 130
Toluene	20.0	18.2		ug/L		91	80 - 120
Xylenes, Total	60.0	54.7		ug/L		91	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*86*		*80 - 120*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*
Dibromofluoromethane (Surr)	*102*		*80 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-123230/5
Matrix: Water
Analysis Batch: 123230

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene			20.0	16.3		ug/L		82	75 - 120	5	30
1,2-Dichloroethane			20.0	15.3		ug/L		76	73 - 124	1	30
1,3,5-Trimethylbenzene			20.0	16.1		ug/L		81	75 - 120	6	30
Benzene			20.0	18.2		ug/L		91	80 - 120	1	30
Ethylbenzene			20.0	17.4		ug/L		87	80 - 120	2	30
Ethylene Dibromide			20.0	17.9		ug/L		89	77 - 120	1	30
Isopropylbenzene			20.0	17.8		ug/L		89	80 - 120	1	30
Methyl tert-butyl ether			20.0	15.7		ug/L		78	69 - 122	2	30
Naphthalene			20.0	10.0	*-	ug/L		50	53 - 124	23	30
t-Butyl alcohol			200	187		ug/L		93	60 - 130	1	30
Toluene			20.0	18.0		ug/L		90	80 - 120	1	30
Xylenes, Total			60.0	53.7		ug/L		90	80 - 120	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*86*		*80 - 120*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*
Dibromofluoromethane (Surr)	*101*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-124235/1-A
Matrix: Water
Analysis Batch: 124617

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 124235

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/10/21 09:30	05/10/21 21:29	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/10/21 09:30	05/10/21 21:29	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/10/21 09:30	05/10/21 21:29	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/10/21 09:30	05/10/21 21:29	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/10/21 09:30	05/10/21 21:29	1
Chrysene	ND		0.50	0.10	ug/L		05/10/21 09:30	05/10/21 21:29	1
Fluorene	ND		0.50	0.12	ug/L		05/10/21 09:30	05/10/21 21:29	1
Naphthalene	ND		0.50	0.10	ug/L		05/10/21 09:30	05/10/21 21:29	1
Phenanthrene	ND		0.50	0.11	ug/L		05/10/21 09:30	05/10/21 21:29	1
Pyrene	ND		0.50	0.10	ug/L		05/10/21 09:30	05/10/21 21:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*81*		*44 - 102*	*05/10/21 09:30*	*05/10/21 21:29*	*1*
Nitrobenzene-d5 (Surr)	*82*		*23 - 128*	*05/10/21 09:30*	*05/10/21 21:29*	*1*
p-Terphenyl-d14 (Surr)	*97*		*31 - 113*	*05/10/21 09:30*	*05/10/21 21:29*	*1*

Lab Sample ID: LCS 410-124235/2-A
Matrix: Water
Analysis Batch: 124617

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 124235

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Anthracene			50.0	51.4		ug/L		103	61 - 117		

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-124235/2-A
Matrix: Water
Analysis Batch: 124617

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 124235

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]anthracene	50.0	52.7		ug/L		105	61 - 126
Benzo[a]pyrene	50.0	61.7	*+	ug/L		123	60 - 116
Benzo[b]fluoranthene	50.0	53.3		ug/L		107	61 - 119
Benzo[g,h,i]perylene	50.0	42.4		ug/L		85	54 - 120
Chrysene	50.0	53.1		ug/L		106	65 - 121
Fluorene	50.0	50.5		ug/L		101	56 - 115
Naphthalene	50.0	42.1		ug/L		84	51 - 102
Phenanthrene	50.0	49.7		ug/L		99	65 - 113
Pyrene	50.0	53.6		ug/L		107	65 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*77*		*44 - 102*
Nitrobenzene-d5 (Surr)	*82*		*23 - 128*
p-Terphenyl-d14 (Surr)	*92*		*31 - 113*

Lab Sample ID: MB 410-124523/1-A
Matrix: Water
Analysis Batch: 124834

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 124523

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/10/21 15:52	05/11/21 10:37	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/10/21 15:52	05/11/21 10:37	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/10/21 15:52	05/11/21 10:37	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/10/21 15:52	05/11/21 10:37	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/10/21 15:52	05/11/21 10:37	1
Chrysene	ND		0.50	0.10	ug/L		05/10/21 15:52	05/11/21 10:37	1
Fluorene	ND		0.50	0.12	ug/L		05/10/21 15:52	05/11/21 10:37	1
Naphthalene	ND		0.50	0.10	ug/L		05/10/21 15:52	05/11/21 10:37	1
Phenanthrene	ND		0.50	0.11	ug/L		05/10/21 15:52	05/11/21 10:37	1
Pyrene	ND		0.50	0.10	ug/L		05/10/21 15:52	05/11/21 10:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*74*		*44 - 102*	*05/10/21 15:52*	*05/11/21 10:37*	*1*
Nitrobenzene-d5 (Surr)	*85*		*23 - 128*	*05/10/21 15:52*	*05/11/21 10:37*	*1*
p-Terphenyl-d14 (Surr)	*94*		*31 - 113*	*05/10/21 15:52*	*05/11/21 10:37*	*1*

Lab Sample ID: LCS 410-124523/2-A
Matrix: Water
Analysis Batch: 124834

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 124523

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.0	51.1		ug/L		102	61 - 117
Benzo[a]anthracene	50.0	51.9		ug/L		104	61 - 126
Benzo[a]pyrene	50.0	62.8	*+	ug/L		126	60 - 116
Benzo[b]fluoranthene	50.0	52.1		ug/L		104	61 - 119
Benzo[g,h,i]perylene	50.0	43.6		ug/L		87	54 - 120
Chrysene	50.0	52.5		ug/L		105	65 - 121
Fluorene	50.0	51.4		ug/L		103	56 - 115

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-124523/2-A
Matrix: Water
Analysis Batch: 124834

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 124523

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Naphthalene			50.0	46.3		ug/L		93	51 - 102		
Phenanthrene			50.0	49.2		ug/L		98	65 - 113		
Pyrene			50.0	52.6		ug/L		105	65 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*84*		*44 - 102*
Nitrobenzene-d5 (Surr)	*82*		*23 - 128*
p-Terphenyl-d14 (Surr)	*87*		*31 - 113*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-122667/1-A
Matrix: Water
Analysis Batch: 122673

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 122667

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/05/21 08:53	05/05/21 17:49	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/05/21 08:53	05/05/21 17:49	1
Methane (1C)	ND		5.0	3.0	ug/L		05/05/21 08:53	05/05/21 17:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*94*		*28 - 140*	*05/05/21 08:53*	*05/05/21 17:49*	*1*

Lab Sample ID: LCS 410-122667/2-A
Matrix: Water
Analysis Batch: 122673

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 122667

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	58.1		ug/L		98	85 - 115		
Ethene (1C)			60.4	58.6		ug/L		97	83 - 115		
Methane (1C)			59.4	54.9		ug/L		92	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*102*		*28 - 140*

Lab Sample ID: LCSD 410-122667/3-A
Matrix: Water
Analysis Batch: 122673

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 122667

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	56.5		ug/L		95	85 - 115	3	20
Ethene (1C)			60.4	56.9		ug/L		94	83 - 115	3	20
Methane (1C)			59.4	53.4		ug/L		90	85 - 115	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*90*		*28 - 140*

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: MB 410-123134/1-A
Matrix: Water
Analysis Batch: 123100

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 123134

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/06/21 08:14	05/06/21 12:09	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/06/21 08:14	05/06/21 12:09	1
Methane (1C)	ND		5.0	3.0	ug/L		05/06/21 08:14	05/06/21 12:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*95*		*28 - 140*	*05/06/21 08:14*	*05/06/21 12:09*	*1*

Lab Sample ID: LCS 410-123134/2-A
Matrix: Water
Analysis Batch: 123100

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 123134

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	56.6		ug/L		95	85 - 115		
Ethene (1C)			60.4	56.7		ug/L		94	83 - 115		
Methane (1C)			59.4	53.1		ug/L		89	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*95*		*28 - 140*

Lab Sample ID: LCSD 410-123134/3-A
Matrix: Water
Analysis Batch: 123100

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 123134

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	57.2		ug/L		96	85 - 115	1	20
Ethene (1C)			60.4	57.2		ug/L		95	83 - 115	1	20
Methane (1C)			59.4	53.5		ug/L		90	85 - 115	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*97*		*28 - 140*

Lab Sample ID: MB 410-123141/1-A
Matrix: Water
Analysis Batch: 123090

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 123141

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/06/21 08:24	05/06/21 14:37	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/06/21 08:24	05/06/21 14:37	1
Methane (1C)	ND		5.0	3.0	ug/L		05/06/21 08:24	05/06/21 14:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*114*		*28 - 140*	*05/06/21 08:24*	*05/06/21 14:37*	*1*

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCS 410-123141/2-A
Matrix: Water
Analysis Batch: 123090

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 123141

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	60.2		ug/L		101	85 - 115		
Ethene (1C)			60.4	60.8		ug/L		101	83 - 115		
Methane (1C)			59.4	61.3		ug/L		103	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*112*		*28 - 140*

Lab Sample ID: LCSD 410-123141/3-A
Matrix: Water
Analysis Batch: 123090

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 123141

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	58.9		ug/L		99	85 - 115	2	20
Ethene (1C)			60.4	59.5		ug/L		99	83 - 115	2	20
Methane (1C)			59.4	60.6		ug/L		102	85 - 115	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*106*		*28 - 140*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-122938/1-A
Matrix: Water
Analysis Batch: 123054

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 122938

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		05/05/21 19:45	05/06/21 08:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*110*		*46 - 136*	*05/05/21 19:45*	*05/06/21 08:45*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*107*		*46 - 136*	*05/05/21 19:45*	*05/06/21 08:45*	*1*

Lab Sample ID: LCS 410-122938/2-A
Matrix: Water
Analysis Batch: 123054

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 122938

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.176		ug/L		138	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*105*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*105*		*46 - 136*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: LCSD 410-122938/3-A
Matrix: Water
Analysis Batch: 123054

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 122938

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.196	*+	ug/L		153	60 - 140	11	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*100*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*97*		*46 - 136*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 410-122869/4
Matrix: Water
Analysis Batch: 122869

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1000	300	ug/L			05/05/21 18:13	1

Lab Sample ID: LCS 410-122869/3
Matrix: Water
Analysis Batch: 122869

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			7500	7350		ug/L		98	90 - 110		

Lab Sample ID: MB 410-122917/4
Matrix: Water
Analysis Batch: 122917

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1000	300	ug/L			05/05/21 17:53	1

Lab Sample ID: LCS 410-122917/3
Matrix: Water
Analysis Batch: 122917

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			7500	6950		ug/L		93	90 - 110		

Lab Sample ID: 410-38315-3 MS
Matrix: Water
Analysis Batch: 122917

Client Sample ID: W-12_SL_20210503
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	57000	FH	25000	87200	E FH	ug/L		119	90 - 110		

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 410-38315-3 DU
Matrix: Water
Analysis Batch: 122917

Client Sample ID: W-12_SL_20210503
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfate	57000	FH		54500		ug/L				5	15

Lab Sample ID: MB 410-123210/4
Matrix: Water
Analysis Batch: 123210

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1000	300	ug/L			05/06/21 10:25	1

Lab Sample ID: LCS 410-123210/3
Matrix: Water
Analysis Batch: 123210

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			7500	7060		ug/L		94	90 - 110		

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-122808/1-A
Matrix: Water
Analysis Batch: 124553

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 122808

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		500	96	ug/L		05/05/21 13:58	05/10/21 14:58	1
Iron	ND		200	40	ug/L		05/05/21 13:58	05/10/21 14:58	1

Lab Sample ID: LCS 410-122808/2-A
Matrix: Water
Analysis Batch: 124553

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 122808

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Calcium			400	421	J	ug/L		105	80 - 120		
Iron			400	456		ug/L		114	80 - 120		

Lab Sample ID: 410-38315-1 MS
Matrix: Water
Analysis Batch: 124553

Client Sample ID: S-38_20210503
Prep Type: Total Recoverable
Prep Batch: 122808

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Calcium	52000		400	51600	4	ug/L		-213	75 - 125		
Iron	5600		400	5900	4	ug/L		74	75 - 125		

Lab Sample ID: 410-38315-1 MSD
Matrix: Water
Analysis Batch: 124553

Client Sample ID: S-38_20210503
Prep Type: Total Recoverable
Prep Batch: 122808

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	52000		400	51500	4	ug/L		-227	75 - 125	0	20
Iron	5600		400	5910	4	ug/L		77	75 - 125	0	20

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 410-38315-1 DU
Matrix: Water
Analysis Batch: 124553

Client Sample ID: S-38_20210503
Prep Type: Total Recoverable
Prep Batch: 122808

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Calcium	52000			50500		ug/L				4	20
Iron	5600			5420		ug/L				3	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 410-122981/1-A
Matrix: Water
Analysis Batch: 123354

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 122981

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/05/21 21:43	05/06/21 11:44	1

Lab Sample ID: LCS 410-122981/2-A
Matrix: Water
Analysis Batch: 123354

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 122981

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			30.0	31.5		ug/L		105	90 - 115		

Lab Sample ID: 410-38315-9 MS
Matrix: Water
Analysis Batch: 123354

Client Sample ID: S-115DSRTF_20210503
Prep Type: Dissolved
Prep Batch: 122981

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead	ND		30.0	31.6		ug/L		105	75 - 125		

Lab Sample ID: 410-38315-9 MSD
Matrix: Water
Analysis Batch: 123354

Client Sample ID: S-115DSRTF_20210503
Prep Type: Dissolved
Prep Batch: 122981

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	ND		30.0	31.3		ug/L		104	75 - 125	1	20

Lab Sample ID: 410-38315-9 DU
Matrix: Water
Analysis Batch: 123354

Client Sample ID: S-115DSRTF_20210503
Prep Type: Dissolved
Prep Batch: 122981

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Lead	ND			ND		ug/L				NC	20

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 410-123828/74
Matrix: Water
Analysis Batch: 123828

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8000	8000	ug/L			05/07/21 00:58	1

Method: 2320B-2011 - Alkalinity, Total (Continued)

Lab Sample ID: LCS 410-123828/75
Matrix: Water
Analysis Batch: 123828

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Alkalinity as CaCO3 to pH 4.5			189000	184000		ug/L		98	82 - 106		

Lab Sample ID: 410-38315-6 MS
Matrix: Water
Analysis Batch: 123828

Client Sample ID: W-32D_20210503
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Alkalinity as CaCO3 to pH 4.5	410000		189000	578000		ug/L		91	82 - 106		

Lab Sample ID: 410-38315-4 DU
Matrix: Water
Analysis Batch: 123828

Client Sample ID: S-447_20210503
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	240000			245000		ug/L				0.2	5

Lab Sample ID: 410-38315-6 DU
Matrix: Water
Analysis Batch: 123828

Client Sample ID: W-32D_20210503
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	410000			407000		ug/L				0.2	5

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 410-123124/2-A
Matrix: Water
Analysis Batch: 125593

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 123124

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		1000	500	ug/L		05/06/21 07:25	05/12/21 14:15	1

Lab Sample ID: LCS 410-123124/1-A
Matrix: Water
Analysis Batch: 125593

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 123124

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Kjeldahl Nitrogen			4000	3690		ug/L		92	90 - 110		

Lab Sample ID: 410-38315-1 MS
Matrix: Water
Analysis Batch: 126159

Client Sample ID: S-38_20210503
Prep Type: Total/NA
Prep Batch: 123124

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Kjeldahl Nitrogen	550	J	5000	5520		ug/L		99	90 - 110		

Method: 351.2 - Nitrogen, Total Kjeldahl (Continued)

Lab Sample ID: 410-38315-1 DU — **Client Sample ID: S-38_20210503**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 126159 — **Prep Batch: 123124**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Kjeldahl Nitrogen	550	J	542	J	ug/L		0.9	20

Lab Sample ID: MB 410-123722/2-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 124971 — **Prep Batch: 123722**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		1000	500	ug/L		05/07/21 10:26	05/10/21 14:44	1

Lab Sample ID: LCS 410-123722/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 124971 — **Prep Batch: 123722**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	4000	4280		ug/L		107	90 - 110

Lab Sample ID: LCSD 410-123722/15-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125533 — **Prep Batch: 123722**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Kjeldahl Nitrogen	4000	4690	*+	ug/L		117	90 - 110	9	20

Lab Sample ID: LCSD 410-123722/15-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125533 — **Prep Batch: 123722**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Kjeldahl Nitrogen	4000	4490	*+	ug/L		112	90 - 110	5	20

Lab Sample ID: LCSD 410-123722/15-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125533 — **Prep Batch: 123722**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Kjeldahl Nitrogen	4000	4610	*+	ug/L		115	90 - 110	8	20

Method: 5310 B-2011 - Carbon, Total and Total Inorganic

Lab Sample ID: MB 410-124415/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 124415

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Carbon	ND		1000	500	ug/L			05/08/21 18:40	1

Method: 5310 B-2011 - Carbon, Total and Total Inorganic (Continued)

Lab Sample ID: LCS 410-124415/4
Matrix: Water
Analysis Batch: 124415

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Carbon			25000	25100		ug/L		100	91 - 115		

Lab Sample ID: 410-38315-1 MS
Matrix: Water
Analysis Batch: 124415

Client Sample ID: S-38_20210503
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Carbon	44000	FH	250000	398000	FH	ug/L		141	91 - 115		

Lab Sample ID: 410-38315-11 MS
Matrix: Water
Analysis Batch: 124415

Client Sample ID: W-1_SL_20210503
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Carbon	90000		250000	326000		ug/L		94	91 - 115		

Lab Sample ID: 410-38315-1 DU
Matrix: Water
Analysis Batch: 124415

Client Sample ID: S-38_20210503
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Carbon	44000	FH		46600		ug/L				5	20

Lab Sample ID: 410-38315-11 DU
Matrix: Water
Analysis Batch: 124415

Client Sample ID: W-1_SL_20210503
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Carbon	90000			101000		ug/L				11	20

Method: 5310C-2011 - Total Organic Carbon/Persulfate - Ultrav

Lab Sample ID: MB 410-124437/39
Matrix: Water
Analysis Batch: 124437

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	500	ug/L			05/09/21 02:06	1

Lab Sample ID: MB 410-124437/70
Matrix: Water
Analysis Batch: 124437

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	500	ug/L			05/09/21 09:34	1

Method: 5310C-2011 - Total Organic Carbon/Persulfate - Ultrav (Continued)

Lab Sample ID: LCS 410-124437/36
Matrix: Water
Analysis Batch: 124437

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	25000	24800		ug/L		99	91 - 113

Lab Sample ID: LCS 410-124437/69
Matrix: Water
Analysis Batch: 124437

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	25000	23700		ug/L		95	91 - 113

Lab Sample ID: 410-38315-2 MS
Matrix: Water
Analysis Batch: 124437

Client Sample ID: DUP-5_20210503
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	1600		10000	10800		ug/L		91	91 - 113

Lab Sample ID: 410-38315-2 DU
Matrix: Water
Analysis Batch: 124437

Client Sample ID: DUP-5_20210503
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon	1600		1670		ug/L		2	3

GC/MS VOA

Analysis Batch: 123230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-1	S-38_20210503	Total/NA	Water	8260C/UST	
410-38315-2	DUP-5_20210503	Total/NA	Water	8260C/UST	
410-38315-3	W-12_SL_20210503	Total/NA	Water	8260C/UST	
410-38315-4	S-447_20210503	Total/NA	Water	8260C/UST	
410-38315-5	W-13_20210503	Total/NA	Water	8260C/UST	
410-38315-6	W-32D_20210503	Total/NA	Water	8260C/UST	
410-38315-7	RW-708_20210503	Total/NA	Water	8260C/UST	
410-38315-8	S-114SRTF_20210503	Total/NA	Water	8260C/UST	
410-38315-8 - DL	S-114SRTF_20210503	Total/NA	Water	8260C/UST	
410-38315-9	S-115DSRTF_20210503	Total/NA	Water	8260C/UST	
410-38315-10	S-118DSTRF_20210503	Total/NA	Water	8260C/UST	
410-38315-11	W-1_SL_20210503	Total/NA	Water	8260C/UST	
410-38315-12	TB_20210504	Total/NA	Water	8260C/UST	
MB 410-123230/6	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-123230/4	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-123230/5	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

GC/MS Semi VOA

Prep Batch: 124235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-3	W-12_SL_20210503	Total/NA	Water	3510C	
410-38315-4	S-447_20210503	Total/NA	Water	3510C	
410-38315-5	W-13_20210503	Total/NA	Water	3510C	
410-38315-6	W-32D_20210503	Total/NA	Water	3510C	
410-38315-7	RW-708_20210503	Total/NA	Water	3510C	
410-38315-8 - DL	S-114SRTF_20210503	Total/NA	Water	3510C	
410-38315-8	S-114SRTF_20210503	Total/NA	Water	3510C	
410-38315-9	S-115DSRTF_20210503	Total/NA	Water	3510C	
410-38315-10	S-118DSTRF_20210503	Total/NA	Water	3510C	
410-38315-11	W-1_SL_20210503	Total/NA	Water	3510C	
MB 410-124235/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-124235/2-A	Lab Control Sample	Total/NA	Water	3510C	

Prep Batch: 124523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-1	S-38_20210503	Total/NA	Water	3510C	
410-38315-2	DUP-5_20210503	Total/NA	Water	3510C	
MB 410-124523/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-124523/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 124617

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-3	W-12_SL_20210503	Total/NA	Water	8270D	124235
410-38315-4	S-447_20210503	Total/NA	Water	8270D	124235
410-38315-5	W-13_20210503	Total/NA	Water	8270D	124235
410-38315-7	RW-708_20210503	Total/NA	Water	8270D	124235
410-38315-8	S-114SRTF_20210503	Total/NA	Water	8270D	124235
410-38315-9	S-115DSRTF_20210503	Total/NA	Water	8270D	124235
410-38315-10	S-118DSTRF_20210503	Total/NA	Water	8270D	124235
410-38315-11	W-1_SL_20210503	Total/NA	Water	8270D	124235

GC/MS Semi VOA (Continued)

Analysis Batch: 124617 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-124235/1-A	Method Blank	Total/NA	Water	8270D	124235
LCS 410-124235/2-A	Lab Control Sample	Total/NA	Water	8270D	124235

Analysis Batch: 124834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-6	W-32D_20210503	Total/NA	Water	8270D	124235
410-38315-8 - DL	S-114SRTF_20210503	Total/NA	Water	8270D	124235
MB 410-124523/1-A	Method Blank	Total/NA	Water	8270D	124523
LCS 410-124523/2-A	Lab Control Sample	Total/NA	Water	8270D	124523

Analysis Batch: 125402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-1	S-38_20210503	Total/NA	Water	8270D	124523
410-38315-2	DUP-5_20210503	Total/NA	Water	8270D	124523

GC VOA

Prep Batch: 122667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-1	S-38_20210503	Total/NA	Water	RSK-175	
410-38315-2	DUP-5_20210503	Total/NA	Water	RSK-175	
410-38315-3	W-12_SL_20210503	Total/NA	Water	RSK-175	
410-38315-4	S-447_20210503	Total/NA	Water	RSK-175	
410-38315-5	W-13_20210503	Total/NA	Water	RSK-175	
410-38315-6	W-32D_20210503	Total/NA	Water	RSK-175	
410-38315-7	RW-708_20210503	Total/NA	Water	RSK-175	
410-38315-8	S-114SRTF_20210503	Total/NA	Water	RSK-175	
410-38315-9	S-115DSRTF_20210503	Total/NA	Water	RSK-175	
410-38315-10	S-118DSTRF_20210503	Total/NA	Water	RSK-175	
410-38315-11	W-1_SL_20210503	Total/NA	Water	RSK-175	
MB 410-122667/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-122667/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-122667/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 122673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-1	S-38_20210503	Total/NA	Water	RSK-175	122667
410-38315-2	DUP-5_20210503	Total/NA	Water	RSK-175	122667
410-38315-3	W-12_SL_20210503	Total/NA	Water	RSK-175	122667
410-38315-4	S-447_20210503	Total/NA	Water	RSK-175	122667
410-38315-5	W-13_20210503	Total/NA	Water	RSK-175	122667
410-38315-6	W-32D_20210503	Total/NA	Water	RSK-175	122667
410-38315-7	RW-708_20210503	Total/NA	Water	RSK-175	122667
410-38315-8	S-114SRTF_20210503	Total/NA	Water	RSK-175	122667
410-38315-9	S-115DSRTF_20210503	Total/NA	Water	RSK-175	122667
410-38315-10	S-118DSTRF_20210503	Total/NA	Water	RSK-175	122667
410-38315-11	W-1_SL_20210503	Total/NA	Water	RSK-175	122667
MB 410-122667/1-A	Method Blank	Total/NA	Water	RSK-175	122667
LCS 410-122667/2-A	Lab Control Sample	Total/NA	Water	RSK-175	122667
LCSD 410-122667/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	122667

GC VOA

Analysis Batch: 123090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-7 - DL	RW-708_20210503	Total/NA	Water	RSK-175	123141
410-38315-8 - DL	S-114SRTF_20210503	Total/NA	Water	RSK-175	123141
410-38315-11 - DL	W-1_SL_20210503	Total/NA	Water	RSK-175	123141
MB 410-123141/1-A	Method Blank	Total/NA	Water	RSK-175	123141
LCS 410-123141/2-A	Lab Control Sample	Total/NA	Water	RSK-175	123141
LCSD 410-123141/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	123141

Analysis Batch: 123100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-1 - DL	S-38_20210503	Total/NA	Water	RSK-175	123134
410-38315-2 - DL	DUP-5_20210503	Total/NA	Water	RSK-175	123134
410-38315-3 - DL	W-12_SL_20210503	Total/NA	Water	RSK-175	123134
410-38315-4 - DL	S-447_20210503	Total/NA	Water	RSK-175	123134
410-38315-5 - DL	W-13_20210503	Total/NA	Water	RSK-175	123134
410-38315-6 - DL	W-32D_20210503	Total/NA	Water	RSK-175	123134
MB 410-123134/1-A	Method Blank	Total/NA	Water	RSK-175	123134
LCS 410-123134/2-A	Lab Control Sample	Total/NA	Water	RSK-175	123134
LCSD 410-123134/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	123134

Prep Batch: 123134

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-1 - DL	S-38_20210503	Total/NA	Water	RSK-175	
410-38315-2 - DL	DUP-5_20210503	Total/NA	Water	RSK-175	
410-38315-3 - DL	W-12_SL_20210503	Total/NA	Water	RSK-175	
410-38315-4 - DL	S-447_20210503	Total/NA	Water	RSK-175	
410-38315-5 - DL	W-13_20210503	Total/NA	Water	RSK-175	
410-38315-6 - DL	W-32D_20210503	Total/NA	Water	RSK-175	
MB 410-123134/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-123134/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-123134/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Prep Batch: 123141

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-7 - DL	RW-708_20210503	Total/NA	Water	RSK-175	
410-38315-8 - DL	S-114SRTF_20210503	Total/NA	Water	RSK-175	
410-38315-11 - DL	W-1_SL_20210503	Total/NA	Water	RSK-175	
MB 410-123141/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-123141/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-123141/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

GC Semi VOA

Prep Batch: 122938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-1	S-38_20210503	Total/NA	Water	8011	
410-38315-2	DUP-5_20210503	Total/NA	Water	8011	
410-38315-3	W-12_SL_20210503	Total/NA	Water	8011	
410-38315-4	S-447_20210503	Total/NA	Water	8011	
410-38315-5	W-13_20210503	Total/NA	Water	8011	
410-38315-6	W-32D_20210503	Total/NA	Water	8011	
410-38315-7	RW-708_20210503	Total/NA	Water	8011	

GC Semi VOA (Continued)

Prep Batch: 122938 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-8	S-114SRTF_20210503	Total/NA	Water	8011	
410-38315-9	S-115DSRTF_20210503	Total/NA	Water	8011	
410-38315-10	S-118DSTRF_20210503	Total/NA	Water	8011	
410-38315-11	W-1_SL_20210503	Total/NA	Water	8011	
MB 410-122938/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-122938/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-122938/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 123054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-1	S-38_20210503	Total/NA	Water	8011	122938
410-38315-2	DUP-5_20210503	Total/NA	Water	8011	122938
410-38315-3	W-12_SL_20210503	Total/NA	Water	8011	122938
410-38315-4	S-447_20210503	Total/NA	Water	8011	122938
410-38315-5	W-13_20210503	Total/NA	Water	8011	122938
410-38315-6	W-32D_20210503	Total/NA	Water	8011	122938
410-38315-7	RW-708_20210503	Total/NA	Water	8011	122938
410-38315-8	S-114SRTF_20210503	Total/NA	Water	8011	122938
410-38315-9	S-115DSRTF_20210503	Total/NA	Water	8011	122938
410-38315-10	S-118DSTRF_20210503	Total/NA	Water	8011	122938
410-38315-11	W-1_SL_20210503	Total/NA	Water	8011	122938
MB 410-122938/1-A	Method Blank	Total/NA	Water	8011	122938
LCS 410-122938/2-A	Lab Control Sample	Total/NA	Water	8011	122938
LCSD 410-122938/3-A	Lab Control Sample Dup	Total/NA	Water	8011	122938

HPLC/IC

Analysis Batch: 122869

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-1	S-38_20210503	Total/NA	Water	EPA 300.0 R2.1	
410-38315-2	DUP-5_20210503	Total/NA	Water	EPA 300.0 R2.1	
MB 410-122869/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-122869/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 122917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-3	W-12_SL_20210503	Total/NA	Water	EPA 300.0 R2.1	
410-38315-4	S-447_20210503	Total/NA	Water	EPA 300.0 R2.1	
410-38315-5	W-13_20210503	Total/NA	Water	EPA 300.0 R2.1	
410-38315-6	W-32D_20210503	Total/NA	Water	EPA 300.0 R2.1	
410-38315-7	RW-708_20210503	Total/NA	Water	EPA 300.0 R2.1	
410-38315-8	S-114SRTF_20210503	Total/NA	Water	EPA 300.0 R2.1	
MB 410-122917/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-122917/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
410-38315-3 MS	W-12_SL_20210503	Total/NA	Water	EPA 300.0 R2.1	
410-38315-3 DU	W-12_SL_20210503	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 123210

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-9	S-115DSRTF_20210503	Total/NA	Water	EPA 300.0 R2.1	
410-38315-10	S-118DSTRF_20210503	Total/NA	Water	EPA 300.0 R2.1	

HPLC/IC (Continued)

Analysis Batch: 123210 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-11	W-1_SL_20210503	Total/NA	Water	EPA 300.0 R2.1	
MB 410-123210/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-123210/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 122808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-1	S-38_20210503	Total Recoverable	Water	3005A	
410-38315-2	DUP-5_20210503	Total Recoverable	Water	3005A	
410-38315-3	W-12_SL_20210503	Total Recoverable	Water	3005A	
410-38315-4	S-447_20210503	Total Recoverable	Water	3005A	
410-38315-5	W-13_20210503	Total Recoverable	Water	3005A	
410-38315-6	W-32D_20210503	Total Recoverable	Water	3005A	
410-38315-7	RW-708_20210503	Total Recoverable	Water	3005A	
410-38315-8	S-114SRTF_20210503	Total Recoverable	Water	3005A	
410-38315-9	S-115DSRTF_20210503	Total Recoverable	Water	3005A	
410-38315-10	S-118DSTRF_20210503	Total Recoverable	Water	3005A	
410-38315-11	W-1_SL_20210503	Total Recoverable	Water	3005A	
MB 410-122808/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-122808/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
410-38315-1 MS	S-38_20210503	Total Recoverable	Water	3005A	
410-38315-1 MSD	S-38_20210503	Total Recoverable	Water	3005A	
410-38315-1 DU	S-38_20210503	Total Recoverable	Water	3005A	

Prep Batch: 122981

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-1	S-38_20210503	Dissolved	Water	Non-Digest Prep	
410-38315-2	DUP-5_20210503	Dissolved	Water	Non-Digest Prep	
410-38315-3	W-12_SL_20210503	Dissolved	Water	Non-Digest Prep	
410-38315-4	S-447_20210503	Dissolved	Water	Non-Digest Prep	
410-38315-5	W-13_20210503	Dissolved	Water	Non-Digest Prep	
410-38315-6	W-32D_20210503	Dissolved	Water	Non-Digest Prep	
410-38315-7	RW-708_20210503	Dissolved	Water	Non-Digest Prep	
410-38315-8	S-114SRTF_20210503	Dissolved	Water	Non-Digest Prep	
410-38315-9	S-115DSRTF_20210503	Dissolved	Water	Non-Digest Prep	
410-38315-10	S-118DSTRF_20210503	Dissolved	Water	Non-Digest Prep	
410-38315-11	W-1_SL_20210503	Dissolved	Water	Non-Digest Prep	
MB 410-122981/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-122981/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	
410-38315-9 MS	S-115DSRTF_20210503	Dissolved	Water	Non-Digest Prep	
410-38315-9 MSD	S-115DSRTF_20210503	Dissolved	Water	Non-Digest Prep	
410-38315-9 DU	S-115DSRTF_20210503	Dissolved	Water	Non-Digest Prep	

Analysis Batch: 123354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-1	S-38_20210503	Dissolved	Water	6020A	122981
410-38315-2	DUP-5_20210503	Dissolved	Water	6020A	122981
410-38315-3	W-12_SL_20210503	Dissolved	Water	6020A	122981
410-38315-4	S-447_20210503	Dissolved	Water	6020A	122981
410-38315-5	W-13_20210503	Dissolved	Water	6020A	122981

Metals (Continued)

Analysis Batch: 123354 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-6	W-32D_20210503	Dissolved	Water	6020A	122981
410-38315-7	RW-708_20210503	Dissolved	Water	6020A	122981
410-38315-8	S-114SRTF_20210503	Dissolved	Water	6020A	122981
410-38315-9	S-115DSRTF_20210503	Dissolved	Water	6020A	122981
410-38315-10	S-118DSTRF_20210503	Dissolved	Water	6020A	122981
410-38315-11	W-1_SL_20210503	Dissolved	Water	6020A	122981
MB 410-122981/1-A	Method Blank	Total/NA	Water	6020A	122981
LCS 410-122981/2-A	Lab Control Sample	Total/NA	Water	6020A	122981
410-38315-9 MS	S-115DSRTF_20210503	Dissolved	Water	6020A	122981
410-38315-9 MSD	S-115DSRTF_20210503	Dissolved	Water	6020A	122981
410-38315-9 DU	S-115DSRTF_20210503	Dissolved	Water	6020A	122981

Analysis Batch: 124553

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-1	S-38_20210503	Total Recoverable	Water	6010C	122808
410-38315-2	DUP-5_20210503	Total Recoverable	Water	6010C	122808
410-38315-3	W-12_SL_20210503	Total Recoverable	Water	6010C	122808
410-38315-4	S-447_20210503	Total Recoverable	Water	6010C	122808
410-38315-5	W-13_20210503	Total Recoverable	Water	6010C	122808
410-38315-6	W-32D_20210503	Total Recoverable	Water	6010C	122808
410-38315-7	RW-708_20210503	Total Recoverable	Water	6010C	122808
410-38315-8	S-114SRTF_20210503	Total Recoverable	Water	6010C	122808
410-38315-9	S-115DSRTF_20210503	Total Recoverable	Water	6010C	122808
410-38315-10	S-118DSTRF_20210503	Total Recoverable	Water	6010C	122808
410-38315-11	W-1_SL_20210503	Total Recoverable	Water	6010C	122808
MB 410-122808/1-A	Method Blank	Total Recoverable	Water	6010C	122808
LCS 410-122808/2-A	Lab Control Sample	Total Recoverable	Water	6010C	122808
410-38315-1 MS	S-38_20210503	Total Recoverable	Water	6010C	122808
410-38315-1 MSD	S-38_20210503	Total Recoverable	Water	6010C	122808
410-38315-1 DU	S-38_20210503	Total Recoverable	Water	6010C	122808

General Chemistry

Prep Batch: 123124

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-1	S-38_20210503	Total/NA	Water	351.2	
410-38315-2	DUP-5_20210503	Total/NA	Water	351.2	
410-38315-4	S-447_20210503	Total/NA	Water	351.2	
410-38315-6	W-32D_20210503	Total/NA	Water	351.2	
410-38315-7	RW-708_20210503	Total/NA	Water	351.2	
410-38315-8	S-114SRTF_20210503	Total/NA	Water	351.2	
410-38315-9	S-115DSRTF_20210503	Total/NA	Water	351.2	
410-38315-10	S-118DSTRF_20210503	Total/NA	Water	351.2	
410-38315-11	W-1_SL_20210503	Total/NA	Water	351.2	
MB 410-123124/2-A	Method Blank	Total/NA	Water	351.2	
LCS 410-123124/1-A	Lab Control Sample	Total/NA	Water	351.2	
410-38315-1 MS	S-38_20210503	Total/NA	Water	351.2	
410-38315-1 DU	S-38_20210503	Total/NA	Water	351.2	

General Chemistry

Prep Batch: 123722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-3	W-12_SL_20210503	Total/NA	Water	351.2	
410-38315-5	W-13_20210503	Total/NA	Water	351.2	
MB 410-123722/2-A	Method Blank	Total/NA	Water	351.2	
LCS 410-123722/1-A	Lab Control Sample	Total/NA	Water	351.2	
LCSD 410-123722/15-A	Lab Control Sample Dup	Total/NA	Water	351.2	

Analysis Batch: 123828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-1	S-38_20210503	Total/NA	Water	2320B-2011	
410-38315-2	DUP-5_20210503	Total/NA	Water	2320B-2011	
410-38315-3	W-12_SL_20210503	Total/NA	Water	2320B-2011	
410-38315-4	S-447_20210503	Total/NA	Water	2320B-2011	
410-38315-5	W-13_20210503	Total/NA	Water	2320B-2011	
410-38315-6	W-32D_20210503	Total/NA	Water	2320B-2011	
410-38315-7	RW-708_20210503	Total/NA	Water	2320B-2011	
410-38315-8	S-114SRTF_20210503	Total/NA	Water	2320B-2011	
410-38315-9	S-115DSRTF_20210503	Total/NA	Water	2320B-2011	
410-38315-10	S-118DSTRF_20210503	Total/NA	Water	2320B-2011	
410-38315-11	W-1_SL_20210503	Total/NA	Water	2320B-2011	
MB 410-123828/74	Method Blank	Total/NA	Water	2320B-2011	
LCS 410-123828/75	Lab Control Sample	Total/NA	Water	2320B-2011	
410-38315-6 MS	W-32D_20210503	Total/NA	Water	2320B-2011	
410-38315-4 DU	S-447_20210503	Total/NA	Water	2320B-2011	
410-38315-6 DU	W-32D_20210503	Total/NA	Water	2320B-2011	

Analysis Batch: 124415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-1	S-38_20210503	Total/NA	Water	5310 B-2011	
410-38315-2	DUP-5_20210503	Total/NA	Water	5310 B-2011	
410-38315-3	W-12_SL_20210503	Total/NA	Water	5310 B-2011	
410-38315-4	S-447_20210503	Total/NA	Water	5310 B-2011	
410-38315-5	W-13_20210503	Total/NA	Water	5310 B-2011	
410-38315-6	W-32D_20210503	Total/NA	Water	5310 B-2011	
410-38315-7	RW-708_20210503	Total/NA	Water	5310 B-2011	
410-38315-8	S-114SRTF_20210503	Total/NA	Water	5310 B-2011	
410-38315-9	S-115DSRTF_20210503	Total/NA	Water	5310 B-2011	
410-38315-10	S-118DSTRF_20210503	Total/NA	Water	5310 B-2011	
410-38315-11	W-1_SL_20210503	Total/NA	Water	5310 B-2011	
MB 410-124415/5	Method Blank	Total/NA	Water	5310 B-2011	
LCS 410-124415/4	Lab Control Sample	Total/NA	Water	5310 B-2011	
410-38315-1 MS	S-38_20210503	Total/NA	Water	5310 B-2011	
410-38315-11 MS	W-1_SL_20210503	Total/NA	Water	5310 B-2011	
410-38315-1 DU	S-38_20210503	Total/NA	Water	5310 B-2011	
410-38315-11 DU	W-1_SL_20210503	Total/NA	Water	5310 B-2011	

Analysis Batch: 124437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-1	S-38_20210503	Total/NA	Water	5310C-2011	
410-38315-2	DUP-5_20210503	Total/NA	Water	5310C-2011	
410-38315-3	W-12_SL_20210503	Total/NA	Water	5310C-2011	
410-38315-4	S-447_20210503	Total/NA	Water	5310C-2011	

General Chemistry (Continued)

Analysis Batch: 124437 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-5	W-13_20210503	Total/NA	Water	5310C-2011	
410-38315-6	W-32D_20210503	Total/NA	Water	5310C-2011	
410-38315-7	RW-708_20210503	Total/NA	Water	5310C-2011	
410-38315-8	S-114SRTF_20210503	Total/NA	Water	5310C-2011	
410-38315-9	S-115DSRTF_20210503	Total/NA	Water	5310C-2011	
410-38315-10	S-118DSTRF_20210503	Total/NA	Water	5310C-2011	
410-38315-11	W-1_SL_20210503	Total/NA	Water	5310C-2011	
MB 410-124437/39	Method Blank	Total/NA	Water	5310C-2011	
MB 410-124437/70	Method Blank	Total/NA	Water	5310C-2011	
LCS 410-124437/36	Lab Control Sample	Total/NA	Water	5310C-2011	
LCS 410-124437/69	Lab Control Sample	Total/NA	Water	5310C-2011	
410-38315-2 MS	DUP-5_20210503	Total/NA	Water	5310C-2011	
410-38315-2 DU	DUP-5_20210503	Total/NA	Water	5310C-2011	

Analysis Batch: 124510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-1	S-38_20210503	Total/NA	Water	SM5310C	
410-38315-2	DUP-5_20210503	Total/NA	Water	SM5310C	
410-38315-3	W-12_SL_20210503	Total/NA	Water	SM5310C	
410-38315-4	S-447_20210503	Total/NA	Water	SM5310C	
410-38315-5	W-13_20210503	Total/NA	Water	SM5310C	
410-38315-6	W-32D_20210503	Total/NA	Water	SM5310C	
410-38315-7	RW-708_20210503	Total/NA	Water	SM5310C	
410-38315-8	S-114SRTF_20210503	Total/NA	Water	SM5310C	
410-38315-9	S-115DSRTF_20210503	Total/NA	Water	SM5310C	
410-38315-10	S-118DSTRF_20210503	Total/NA	Water	SM5310C	
410-38315-11	W-1_SL_20210503	Total/NA	Water	SM5310C	

Analysis Batch: 124971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-123722/2-A	Method Blank	Total/NA	Water	351.2	123722
LCS 410-123722/1-A	Lab Control Sample	Total/NA	Water	351.2	123722

Analysis Batch: 125020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-3	W-12_SL_20210503	Total/NA	Water	351.2	123722
410-38315-5	W-13_20210503	Total/NA	Water	351.2	123722

Analysis Batch: 125533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 410-123722/15-A	Lab Control Sample Dup	Total/NA	Water	351.2	123722
LCSD 410-123722/15-A	Lab Control Sample Dup	Total/NA	Water	351.2	123722
LCSD 410-123722/15-A	Lab Control Sample Dup	Total/NA	Water	351.2	123722

Analysis Batch: 125593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-7	RW-708_20210503	Total/NA	Water	351.2	123124
MB 410-123124/2-A	Method Blank	Total/NA	Water	351.2	123124
LCS 410-123124/1-A	Lab Control Sample	Total/NA	Water	351.2	123124

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38315-1

General Chemistry

Analysis Batch: 126159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38315-1	S-38_20210503	Total/NA	Water	351.2	123124
410-38315-2	DUP-5_20210503	Total/NA	Water	351.2	123124
410-38315-4	S-447_20210503	Total/NA	Water	351.2	123124
410-38315-6	W-32D_20210503	Total/NA	Water	351.2	123124
410-38315-8	S-114SRTF_20210503	Total/NA	Water	351.2	123124
410-38315-9	S-115DSRTF_20210503	Total/NA	Water	351.2	123124
410-38315-10	S-118DSTRF_20210503	Total/NA	Water	351.2	123124
410-38315-11	W-1_SL_20210503	Total/NA	Water	351.2	123124
410-38315-1 MS	S-38_20210503	Total/NA	Water	351.2	123124
410-38315-1 DU	S-38_20210503	Total/NA	Water	351.2	123124

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38315-1

Client Sample ID: S-38_20210503

Date Collected: 05/03/21 09:50
Date Received: 05/04/21 19:19

Lab Sample ID: 410-38315-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	123230	05/06/21 20:17	LCW8	ELLE
Total/NA	Prep	3510C			124523	05/10/21 15:52	DN9W	ELLE
Total/NA	Analysis	8270D		1	125402	05/12/21 15:22	SJ89	ELLE
Total/NA	Prep	RSK-175			122667	05/05/21 08:53	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	122673	05/05/21 19:47	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		123134	05/06/21 08:14	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	5	123100	05/06/21 15:40	LXF2	ELLE
Total/NA	Prep	8011			122938	05/05/21 19:45	QQ3P	ELLE
Total/NA	Analysis	8011		1	123054	05/06/21 10:25	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	122869	05/05/21 22:15	GJ35	ELLE
Total Recoverable	Prep	3005A			122808	05/05/21 13:58	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	124553	05/10/21 15:04	WJM9	ELLE
Dissolved	Prep	Non-Digest Prep			122981	05/05/21 21:43	UJLA	ELLE
Dissolved	Analysis	6020A		1	123354	05/06/21 12:22	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	123828	05/07/21 02:49	DI9Q	ELLE
Total/NA	Prep	351.2			123124	05/06/21 07:25	UNJS	ELLE
Total/NA	Analysis	351.2		1	126159	05/13/21 14:34	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		25	124415	05/08/21 18:50	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	124437	05/09/21 09:05	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:13	NKL9	ELLE

Client Sample ID: DUP-5_20210503

Date Collected: 05/03/21 00:00
Date Received: 05/04/21 19:19

Lab Sample ID: 410-38315-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	123230	05/06/21 20:40	LCW8	ELLE
Total/NA	Prep	3510C			124523	05/10/21 15:52	DN9W	ELLE
Total/NA	Analysis	8270D		1	125402	05/12/21 15:49	SJ89	ELLE
Total/NA	Prep	RSK-175			122667	05/05/21 08:53	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	122673	05/05/21 20:04	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		123134	05/06/21 08:14	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	5	123100	05/06/21 15:57	LXF2	ELLE
Total/NA	Prep	8011			122938	05/05/21 19:45	QQ3P	ELLE
Total/NA	Analysis	8011		1	123054	05/06/21 10:42	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	122869	05/05/21 22:31	GJ35	ELLE
Total Recoverable	Prep	3005A			122808	05/05/21 13:58	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	124553	05/10/21 15:49	WJM9	ELLE
Dissolved	Prep	Non-Digest Prep			122981	05/05/21 21:43	UJLA	ELLE
Dissolved	Analysis	6020A		1	123354	05/06/21 12:18	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	123828	05/07/21 02:55	DI9Q	ELLE
Total/NA	Prep	351.2			123124	05/06/21 07:25	UNJS	ELLE
Total/NA	Analysis	351.2		1	126159	05/13/21 14:30	JCG7	ELLE

Client Sample ID: DUP-5_20210503

Lab Sample ID: 410-38315-2

Date Collected: 05/03/21 00:00

Matrix: Water

Date Received: 05/04/21 19:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	5310 B-2011		10	124415	05/08/21 19:22	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	124437	05/09/21 09:48	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:13	NKL9	ELLE

Client Sample ID: W-12_SL_20210503

Lab Sample ID: 410-38315-3

Date Collected: 05/03/21 09:45

Matrix: Water

Date Received: 05/04/21 19:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	123230	05/06/21 21:04	LCW8	ELLE
Total/NA	Prep	3510C			124235	05/10/21 09:30	R9CT	ELLE
Total/NA	Analysis	8270D		1	124617	05/11/21 01:14	W6XI	ELLE
Total/NA	Prep	RSK-175			122667	05/05/21 08:53	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	122673	05/05/21 20:21	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		123134	05/06/21 08:14	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	5	123100	05/06/21 16:14	LXF2	ELLE
Total/NA	Prep	8011			122938	05/05/21 19:45	QQ3P	ELLE
Total/NA	Analysis	8011		1	123054	05/06/21 10:59	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	122917	05/05/21 18:03	GJ35	ELLE
Total Recoverable	Prep	3005A			122808	05/05/21 13:58	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	124553	05/10/21 15:36	WJM9	ELLE
Dissolved	Prep	Non-Digest Prep			122981	05/05/21 21:43	UJLA	ELLE
Dissolved	Analysis	6020A		1	123354	05/06/21 12:08	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	123828	05/07/21 02:36	DI9Q	ELLE
Total/NA	Prep	351.2			123722	05/07/21 10:26	F8AU	ELLE
Total/NA	Analysis	351.2		1	125020	05/11/21 09:44	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	124415	05/08/21 19:33	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	124437	05/09/21 11:00	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: S-447_20210503

Lab Sample ID: 410-38315-4

Date Collected: 05/03/21 11:50

Matrix: Water

Date Received: 05/04/21 19:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	123230	05/07/21 01:02	LCW8	ELLE
Total/NA	Prep	3510C			124235	05/10/21 09:30	R9CT	ELLE
Total/NA	Analysis	8270D		1	124617	05/11/21 01:42	W6XI	ELLE
Total/NA	Prep	RSK-175			122667	05/05/21 08:53	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	122673	05/05/21 20:54	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		123134	05/06/21 08:14	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	200	123100	05/06/21 16:31	LXF2	ELLE
Total/NA	Prep	8011			122938	05/05/21 19:45	QQ3P	ELLE
Total/NA	Analysis	8011		1	123054	05/06/21 11:15	UAMZ	ELLE

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38315-1

Client Sample ID: S-447_20210503

Lab Sample ID: 410-38315-4

Date Collected: 05/03/21 11:50

Matrix: Water

Date Received: 05/04/21 19:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		5	122917	05/05/21 18:33	GJ35	ELLE
Total Recoverable	Prep	3005A			122808	05/05/21 13:58	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	124553	05/10/21 15:26	WJM9	ELLE
Dissolved	Prep	Non-Digest Prep			122981	05/05/21 21:43	UJLA	ELLE
Dissolved	Analysis	6020A		1	123354	05/06/21 12:10	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	123828	05/07/21 01:35	DI9Q	ELLE
Total/NA	Prep	351.2			123124	05/06/21 07:25	UNJS	ELLE
Total/NA	Analysis	351.2		1	126159	05/13/21 14:32	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	124415	05/08/21 19:44	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	124437	05/09/21 11:14	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: W-13_20210503

Lab Sample ID: 410-38315-5

Date Collected: 05/03/21 12:15

Matrix: Water

Date Received: 05/04/21 19:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	123230	05/06/21 21:28	LCW8	ELLE
Total/NA	Prep	3510C			124235	05/10/21 09:30	R9CT	ELLE
Total/NA	Analysis	8270D		1	124617	05/11/21 02:10	W6XI	ELLE
Total/NA	Prep	RSK-175			122667	05/05/21 08:53	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	122673	05/05/21 21:11	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		123134	05/06/21 08:14	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	200	123100	05/06/21 16:48	LXF2	ELLE
Total/NA	Prep	8011			122938	05/05/21 19:45	QQ3P	ELLE
Total/NA	Analysis	8011		1	123054	05/06/21 11:32	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	122917	05/05/21 18:53	GJ35	ELLE
Total Recoverable	Prep	3005A			122808	05/05/21 13:58	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	124553	05/10/21 15:42	WJM9	ELLE
Dissolved	Prep	Non-Digest Prep			122981	05/05/21 21:43	UJLA	ELLE
Dissolved	Analysis	6020A		1	123354	05/06/21 12:24	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	123828	05/07/21 02:24	DI9Q	ELLE
Total/NA	Prep	351.2			123722	05/07/21 10:26	F8AU	ELLE
Total/NA	Analysis	351.2		1	125020	05/11/21 09:42	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	124415	05/08/21 19:54	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	124437	05/09/21 11:28	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: W-32D_20210503

Lab Sample ID: 410-38315-6

Date Collected: 05/03/21 13:10

Matrix: Water

Date Received: 05/04/21 19:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	123230	05/06/21 21:52	LCW8	ELLE

Client Sample ID: W-32D_20210503

Lab Sample ID: 410-38315-6

Date Collected: 05/03/21 13:10

Matrix: Water

Date Received: 05/04/21 19:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			124235	05/10/21 09:30	R9CT	ELLE
Total/NA	Analysis	8270D		1	124834	05/11/21 13:53	W6XI	ELLE
Total/NA	Prep	RSK-175			122667	05/05/21 08:53	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	122673	05/05/21 21:28	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		123134	05/06/21 08:14	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	200	123100	05/06/21 17:05	LXF2	ELLE
Total/NA	Prep	8011			122938	05/05/21 19:45	QQ3P	ELLE
Total/NA	Analysis	8011		1	123054	05/06/21 11:49	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	122917	05/05/21 19:03	GJ35	ELLE
Total Recoverable	Prep	3005A			122808	05/05/21 13:58	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	124553	05/10/21 15:23	WJM9	ELLE
Dissolved	Prep	Non-Digest Prep			122981	05/05/21 21:43	UJLA	ELLE
Dissolved	Analysis	6020A		1	123354	05/06/21 12:06	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	123828	05/07/21 01:13	DI9Q	ELLE
Total/NA	Prep	351.2			123124	05/06/21 07:25	UNJS	ELLE
Total/NA	Analysis	351.2		20	126159	05/13/21 14:45	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	124415	05/08/21 20:05	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	124437	05/09/21 11:42	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: RW-708_20210503

Lab Sample ID: 410-38315-7

Date Collected: 05/03/21 14:55

Matrix: Water

Date Received: 05/04/21 19:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	123230	05/06/21 22:16	LCW8	ELLE
Total/NA	Prep	3510C			124235	05/10/21 09:30	R9CT	ELLE
Total/NA	Analysis	8270D		1	124617	05/11/21 03:07	W6XI	ELLE
Total/NA	Prep	RSK-175			122667	05/05/21 08:53	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	122673	05/05/21 21:45	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		123141	05/06/21 08:24	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	50	123090	05/06/21 15:32	LXF2	ELLE
Total/NA	Prep	8011			122938	05/05/21 19:45	QQ3P	ELLE
Total/NA	Analysis	8011		1	123054	05/06/21 12:06	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	122917	05/05/21 19:13	GJ35	ELLE
Total Recoverable	Prep	3005A			122808	05/05/21 13:58	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	124553	05/10/21 15:39	WJM9	ELLE
Dissolved	Prep	Non-Digest Prep			122981	05/05/21 21:43	UJLA	ELLE
Dissolved	Analysis	6020A		1	123354	05/06/21 12:20	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	123828	05/07/21 02:43	DI9Q	ELLE
Total/NA	Prep	351.2			123124	05/06/21 07:25	UNJS	ELLE
Total/NA	Analysis	351.2		1	125593	05/12/21 14:54	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	124415	05/08/21 20:38	KGQ6	ELLE

Client Sample ID: RW-708_20210503

Lab Sample ID: 410-38315-7

Date Collected: 05/03/21 14:55

Matrix: Water

Date Received: 05/04/21 19:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	5310C-2011		1	124437	05/09/21 11:56	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: S-114SRTF_20210503

Lab Sample ID: 410-38315-8

Date Collected: 05/03/21 12:15

Matrix: Water

Date Received: 05/04/21 19:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		10	123230	05/07/21 01:26	LCW8	ELLE
Total/NA	Analysis	8260C/UST	DL	100	123230	05/07/21 01:50	LCW8	ELLE
Total/NA	Prep	3510C			124235	05/10/21 09:30	R9CT	ELLE
Total/NA	Analysis	8270D		1	124617	05/11/21 03:35	W6XI	ELLE
Total/NA	Prep	3510C	DL		124235	05/10/21 09:30	R9CT	ELLE
Total/NA	Analysis	8270D	DL	5	124834	05/11/21 14:21	W6XI	ELLE
Total/NA	Prep	RSK-175			122667	05/05/21 08:53	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	122673	05/05/21 22:02	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		123141	05/06/21 08:24	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	50	123090	05/06/21 15:50	LXF2	ELLE
Total/NA	Prep	8011			122938	05/05/21 19:45	QQ3P	ELLE
Total/NA	Analysis	8011		1	123054	05/06/21 13:12	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		50	122917	05/05/21 19:54	GJ35	ELLE
Total Recoverable	Prep	3005A			122808	05/05/21 13:58	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	124553	05/10/21 15:55	WJM9	ELLE
Dissolved	Prep	Non-Digest Prep			122981	05/05/21 21:43	UJLA	ELLE
Dissolved	Analysis	6020A		1	123354	05/06/21 12:12	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	123828	05/07/21 02:06	DI9Q	ELLE
Total/NA	Prep	351.2			123124	05/06/21 07:25	UNJS	ELLE
Total/NA	Analysis	351.2		1	126159	05/13/21 14:22	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	124415	05/08/21 20:48	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	124437	05/09/21 12:11	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: S-115DSRTF_20210503

Lab Sample ID: 410-38315-9

Date Collected: 05/03/21 13:05

Matrix: Water

Date Received: 05/04/21 19:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	123230	05/06/21 22:39	LCW8	ELLE
Total/NA	Prep	3510C			124235	05/10/21 09:30	R9CT	ELLE
Total/NA	Analysis	8270D		1	124617	05/11/21 04:04	W6XI	ELLE
Total/NA	Prep	RSK-175			122667	05/05/21 08:53	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	122673	05/05/21 22:19	LXF2	ELLE
Total/NA	Prep	8011			122938	05/05/21 19:45	QQ3P	ELLE
Total/NA	Analysis	8011		1	123054	05/06/21 13:29	UAMZ	ELLE

Client Sample ID: S-115DSRTF_20210503

Lab Sample ID: 410-38315-9

Date Collected: 05/03/21 13:05

Matrix: Water

Date Received: 05/04/21 19:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		50	123210	05/06/21 14:56	W5UX	ELLE
Total Recoverable	Prep	3005A			122808	05/05/21 13:58	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	124553	05/10/21 15:59	WJM9	ELLE
Dissolved	Prep	Non-Digest Prep			122981	05/05/21 21:43	UJLA	ELLE
Dissolved	Analysis	6020A		1	123354	05/06/21 11:48	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	123828	05/07/21 01:59	DI9Q	ELLE
Total/NA	Prep	351.2			123124	05/06/21 07:25	UNJS	ELLE
Total/NA	Analysis	351.2		10	126159	05/13/21 14:43	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	124415	05/08/21 20:59	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	124437	05/09/21 12:26	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: S-118DSTRF_20210503

Lab Sample ID: 410-38315-10

Date Collected: 05/03/21 14:50

Matrix: Water

Date Received: 05/04/21 19:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	123230	05/06/21 23:03	LCW8	ELLE
Total/NA	Prep	3510C			124235	05/10/21 09:30	R9CT	ELLE
Total/NA	Analysis	8270D		1	124617	05/11/21 04:32	W6XI	ELLE
Total/NA	Prep	RSK-175			122667	05/05/21 08:53	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	122673	05/05/21 22:36	LXF2	ELLE
Total/NA	Prep	8011			122938	05/05/21 19:45	QQ3P	ELLE
Total/NA	Analysis	8011		1	123054	05/06/21 13:46	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		50	123210	05/06/21 15:06	W5UX	ELLE
Total Recoverable	Prep	3005A			122808	05/05/21 13:58	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	124553	05/10/21 15:52	WJM9	ELLE
Dissolved	Prep	Non-Digest Prep			122981	05/05/21 21:43	UJLA	ELLE
Dissolved	Analysis	6020A		1	123354	05/06/21 12:16	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	123828	05/07/21 01:50	DI9Q	ELLE
Total/NA	Prep	351.2			123124	05/06/21 07:25	UNJS	ELLE
Total/NA	Analysis	351.2		5	126159	05/13/21 14:47	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	124415	05/08/21 21:10	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	124437	05/09/21 12:40	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: W-1_SL_20210503

Lab Sample ID: 410-38315-11

Date Collected: 05/03/21 14:25

Matrix: Water

Date Received: 05/04/21 19:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	123230	05/06/21 23:27	LCW8	ELLE
Total/NA	Prep	3510C			124235	05/10/21 09:30	R9CT	ELLE
Total/NA	Analysis	8270D		1	124617	05/11/21 05:00	W6XI	ELLE

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38315-1

Client Sample ID: W-1_SL_20210503

Lab Sample ID: 410-38315-11

Date Collected: 05/03/21 14:25

Matrix: Water

Date Received: 05/04/21 19:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	RSK-175			122667	05/05/21 08:53	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	122673	05/05/21 22:53	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		123141	05/06/21 08:24	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	100	123090	05/06/21 16:08	LXF2	ELLE
Total/NA	Prep	8011			122938	05/05/21 19:45	QQ3P	ELLE
Total/NA	Analysis	8011		1	123054	05/06/21 14:02	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	123210	05/06/21 15:16	W5UX	ELLE
Total Recoverable	Prep	3005A			122808	05/05/21 13:58	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	124553	05/10/21 15:46	WJM9	ELLE
Dissolved	Prep	Non-Digest Prep			122981	05/05/21 21:43	UJLA	ELLE
Dissolved	Analysis	6020A		1	123354	05/06/21 12:14	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	123828	05/07/21 02:30	DI9Q	ELLE
Total/NA	Prep	351.2			123124	05/06/21 07:25	UNJS	ELLE
Total/NA	Analysis	351.2		1	126159	05/13/21 14:18	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		25	124415	05/08/21 21:20	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	124437	05/09/21 12:54	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: TB_20210504

Lab Sample ID: 410-38315-12

Date Collected: 05/04/21 00:00

Matrix: Water

Date Received: 05/04/21 19:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	123230	05/06/21 23:51	LCW8	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp. Job ID: 410-38315-1
Project/Site: Former PES Annual GWS

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
5310 B-2011		Water	Total Carbon
SM5310C		Water	Total Inorganic Carbon

Method Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38315-1

Method	Method Description	Protocol	Laboratory
8260C/UST	Volatile Organic Compounds (GC/MS)	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
RSK-175	Dissolved Gases (GC)	RSK	ELLE
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	ELLE
6010C	Metals (ICP)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
2320B-2011	Alkalinity, Total	SM	ELLE
351.2	Nitrogen, Total Kjeldahl	MCAWW	ELLE
5310 B-2011	Carbon, Total and Total Inorganic	SM	ELLE
5310C-2011	Total Organic Carbon/Persulfate - Ultrav	SM	ELLE
SM5310C	Carbon, Total Inorganic	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
351.2	Nitrogen, Total Kjeldahl	MCAWW	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
8011	Microextraction	SW846	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38315-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-38315-1	S-38_20210503	Water	05/03/21 09:50	05/04/21 19:19	
410-38315-2	DUP-5_20210503	Water	05/03/21 00:00	05/04/21 19:19	
410-38315-3	W-12_SL_20210503	Water	05/03/21 09:45	05/04/21 19:19	
410-38315-4	S-447_20210503	Water	05/03/21 11:50	05/04/21 19:19	
410-38315-5	W-13_20210503	Water	05/03/21 12:15	05/04/21 19:19	
410-38315-6	W-32D_20210503	Water	05/03/21 13:10	05/04/21 19:19	
410-38315-7	RW-708_20210503	Water	05/03/21 14:55	05/04/21 19:19	
410-38315-8	S-114SRTF_20210503	Water	05/03/21 12:15	05/04/21 19:19	
410-38315-9	S-115DSRTF_20210503	Water	05/03/21 13:05	05/04/21 19:19	
410-38315-10	S-118DSTRF_20210503	Water	05/03/21 14:50	05/04/21 19:19	
410-38315-11	W-1_SL_20210503	Water	05/03/21 14:25	05/04/21 19:19	
410-38315-12	TB_20210504	Water	05/04/21 00:00	05/04/21 19:19	

Envir Request/Chain of Custody

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410-38315 Chain of Custody

Sample #

Client: Evergreen c/o Stantec			
Project Name/#: Former PES Annual GWS	Site ID #: 16657		
Project Manager: Andrew Bradley	P.O. #: 213403363		
Sampler: Dane Hopkins, Dana Hoblitzell, Doulton Campbell, Michael Ochmanowicz, Maddie Bredehoeft	PWSID #:		
Phone #: 610.840.2541	Quote #:		
State where sample(s) were collected: PA			

Matrix: Soil ☐ | Sediment ☐ | Water ☑ (Potable ☐ Ground ☑ NPDES ☐ Surface ☐) | Other: Trip Blank / Field Blank ☐

Analyses Requested — Preservation Codes

Sample Identification	Collection Date	Collection Time	Grab	Composite	Total # of Containers	Evergreen Petroleum Short List (refer to attached list of analytes) H / NP	Dissolved Lead (field filtered) N	Total Inorganic Carbon (TIC) P/NP	Sulfate NP	Dissolved Headspace Gases (methane, ethane, ethene) H	Total Iron N	Total Calcium N	Total Kjeldahl Nitrogen (TKN) S	Alkalinity as CaCO3 NP	VOC 8260 / EDB 8011 H	Remarks
S-38_20210503	5/3/2021	9:50	X		18	X	X	X	X	X	X	X	X	X		
DUP-5_20210503	5/3/2021	--	X		18	X	X	X	X	X	X	X	X	X		
W-12_SL_20210503	5/3/2021	9:45	X		18	X	X	X	X	X	X	X	X	X		
S-447_20210503	5/3/2021	11:50	X		18	X	X	X	X	X	X	X	X	X		
W-13_20210503	5/3/2021	12:15	X		18	X	X	X	X	X	X	X	X	X		
W-32D_20210503	5/3/2021	13:10	X		18	X	X	X	X	X	X	X	X	X		
RW-708_20210503	5/3/2021	14:55	X		18	X	X	X	X	X	X	X	X	X		
S-114SRTF_20210503	5/3/2021	12:15	X		18	X	X	X	X	X	X	X	X	X		
S-115DSRTF_20210503	5/3/2021	13:05	X		18	X	X	X	X	X	X	X	X	X		
S-118DSRTF_20210503	5/3/2021	14:50	X		18	X	X	X	X	X	X	X	X	X		

For Lab Use Only: SF #: ____ SCR #: ____

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other; NP = Non-Preserved

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges)

Date results are needed:

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: abradley@stantec.com

Phone: 610.840.2541

Data Package Options (please check if required)

Type I (Validation/non-CLP) ☐ MA MCP ☐
Type III (Reduced non-CLP) ☐ CT RCP ☐
Type IV (CLP SOW) ☐ TX TRRP-13 ☐
Type VI (Raw Data Only) ☐

EDD Required? Yes ☑ No ☐ If yes, format: ___ EQUIS

	Relinquished by:	Date	Time	Received by:	Date	Time
1		5/4/2021	12:05		5/4	12105
2		5/4	1905			
3						
4						
5						

Relinquished by Commercial Carrier:

UPS ____ FedEx ____ Other ____

Temperature upon receipt 2.7-5.9 °C

Environmental Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

Acct. # _____ Group # _____ Sample # _____

| | | |

Evergreen Petroleum Short List (June 2016)

VOCs by EPA Method 8260	CAS No.
Benzene	71-43-2
Cumene	98-82-8
Dichloroethane, 1,2-	107-06-2
Ethylbenzene	100-41-4
Ethylene Dibromide*	106-93-4
Methyl tert butyl ether	1634-04-4
Toluene	108-88-3
Trimethylbenzene, 1,2,4-	95-63-6
Trimethylbenzene, 1,3,5-	108-67-8
Xylenes	1330-20-7

SVOCs by EPA Method 8270	CAS No.
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Chrysene	218-01-9
Fluorene	86-73-7
Naphthalene**	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Metals by Method 6010/6020	CAS No.
Lead***	7439-92-1

*Ethylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

**Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

***Metals analysis should be total in soil and dissolved in groundwater.

This list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline and No. 1, 2, 4, 5, 6 Fuel Oils).

Envir Request/Chain of Custody

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410-38315 Chain of Custody

Sample #

Client: Evergreen c/o Stantec			
Project Name/#: Former PES Annual GWS	Site ID #: 16657		
Project Manager: Andrew Bradley	P.O. #: 213403363		
Sampler: Dane Hopkins, Dana Hoblitzell, Doulton Campbell, Michael Ochmanowicz, Maddie Bredehoeft	PWSID #:		
Phone #: 610.840.2541	Quote #:		
State where sample(s) were collected: PA			

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Matrix: Water (Ground, Potable, Surface, NPDES)	Matrix: Other: Trip Blank / Field Blank	Total # of Containers	Evergreen Petroleum Short List (refer to attached list of analytes)	Dissolved Lead (field filtered)	Total Inorganic Carbon (TIC)	Sulfate	Dissolved Headspace Gases (methane, ethane, ethene)	Total Iron	Total Calcium	Total Kjeldahl Nitrogen (TKN)	Alkalinity as CaCO3	VOC 8260 / EDB 8011	Remarks
Preservation Codes									H / NP	N	P/NP	NP	H	N	N	S	NP	H	
S-38_20210503	5/3/2021	9:50	X			X		18	X	X	X	X	X	X	X	X	X		
DUP-5_20210503	5/3/2021	--	X			X		18	X	X	X	X	X	X	X	X	X		
W-12_SL_20210503	5/3/2021	9:45	X			X		18	X	X	X	X	X	X	X	X	X		
S-447_20210503	5/3/2021	11:50	X			X		18	X	X	X	X	X	X	X	X	X		
W-13_20210503	5/3/2021	12:15	X			X		18	X	X	X	X	X	X	X	X	X		
W-32D_20210503	5/3/2021	13:10	X			X		18	X	X	X	X	X	X	X	X	X		
RW-708_20210503	5/3/2021	14:55	X			X		18	X	X	X	X	X	X	X	X	X		
S-114SRTF_20210503	5/3/2021	12:15	X			X		18	X	X	X	X	X	X	X	X	X		
S-115DSRTF_20210503	5/3/2021	13:05	X			X		18	X	X	X	X	X	X	X	X	X		
S-118DSRTF_20210503	5/3/2021	14:50	X			X		18	X	X	X	X	X	X	X	X	X		

Analyses Requested

For Lab Use Only

SF #:

SCR #:

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other; NP = Non-Preserved

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐

(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed:

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: abradley@stantec.com

Phone: 610.840.2541

Data Package Options (please check if required)

Type I (Validation/non-CLP) ☐ MA MCP ☐

Type III (Reduced non-CLP) ☐ CT RCP ☐

Type IV (CLP SOW) ☐ TX TRRP-13 ☐

Type VI (Raw Data Only) ☐

EDD Required? Yes ☑ No ☐ If yes, format: __ EQUIS

	Date	Time		Date	Time
Relinquished by:	5/4/2021	12:05	Received by:	5/4	1205
Relinquished by:	5/4	1905	Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:	5-4-21	1919

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt 2.7-5.9 °C

Environmental Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

Acct. # _____ Group # _____ Sample # _____

Client: Evergreen c/o Stantec			
Project Name/#: Former PES Annual GWS	Site ID #: 16657		
Project Manager: Andrew Bradley	P.O. #: 213403363		
Sampler: Dane Hopkins, Dana Hoblitzell, Doulton Campbell, Michael Ochmanowicz, Maddie Bredehoeft	PWSID #:		
Phone #: 610.840.2541	Quote #:		
State where sample(s) were collected: PA			

Matrix: ☐ Sediment ☑ Ground ☐ Surface ☐ Soil ☐ Potable ☐ NPDES ☐ Water ☐ Other: Trip Blank / Field Blank

Analyses Requested — Preservation Codes

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix	Total # of Containers	Evergreen Petroleum Short List (refer to attached list of analytes) H / NP	Dissolved Lead (field filtered) N	Total Inorganic Carbon (TIC) P/NP	Sulfate NP	Dissolved Headspace Gases (methane, ethane, ethene) H	Total Iron N	Total Calcium N	Total Kjeldahl Nitrogen (TKN) S	Alkalinity as CaCO3 NP	VOC 8260 / EDB 8011 H	Remarks
DH ~~W-1_20210503~~ W-1_SL_20210503	5/3/2021	14:25	X		Water	18	X	X	X	X	X	X	X	X	X		
TB_20210504	4/14/2021	--			Other: Trip Blank / Field Blank	4										X	

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other; NP = Non-Preserved

For Lab Use Only: SF #: _____ SCR #: _____

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed:

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: abradley@stantec.com

Phone: 610.840.2541

Data Package Options (please check if required)

Type I (Validation/non-CLP) ☐ MA MCP ☐
Type III (Reduced non-CLP) ☐ CT RCP ☐
Type IV (CLP SOW) ☐ TX TRRP-13 ☐
Type VI (Raw Data Only) ☐

EDD Required? Yes ☑ No ☐ If yes, format: __ EQUIS

	Date	Time		Date	Time
Relinquished by:	5/4/2021	1205	Received by:		
Relinquished by:	5/4	17:05	Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:	5-4-2021	1919

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt 2.7-5.9 °C

Evergreen Petroleum Short List (June 2016)

VOCs by EPA Method 8260	CAS No.
Benzene	71-43-2
Cumene	98-82-8
Dichloroethane, 1,2-	107-06-2
Ethylbenzene	100-41-4
Ethylene Dibromide*	106-93-4
Methyl tert butyl ether	1634-04-4
Toluene	108-88-3
Trimethylbenzene, 1,2,4-	95-63-6
Trimethylbenzene, 1,3,5-	108-67-8
Xylenes	1330-20-7

SVOCs by EPA Method 8270	CAS No.
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Chrysene	218-01-9
Fluorene	86-73-7
Naphthalene**	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Metals by Method 6010/6020	CAS No.
Lead***	7439-92-1

*Ethylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

**Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

***Metals analysis should be total in soil and dissolved in groundwater.

This list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline and No. 1, 2, 4, 5, 6 Fuel Oils).

Login Sample Receipt Checklist

Client: Stantec Consulting Corp. Job Number: 410-38315-1

Login Number: 38315 **List Source: Eurofins Lancaster Laboratories Env, LLC**
List Number: 1
Creator: Metzger, Katherine A

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	True	

eurofins | Environment Testing America



ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-38512-1
Client Project/Site: Former PES Annual GWS

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Mr. Andrew Bradley

Authorized for release by:
5/17/2021 10:47:57 PM

Amek Carter, Project Manager
(717)556-7252
Loran.Carter@eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
5/17/2021 10:47:57 PM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 6
Detection Summary 8
Client Sample Results 13
Surrogate Summary 30
QC Sample Results 33
QC Association Summary 49
Lab Chronicle 57
Certification Summary 64
Method Summary 65
Sample Summary 66
Chain of Custody 67
Receipt Checklists 69

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F3	Duplicate RPD exceeds the control limit
FL	MS and/or MSD recovery below control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-38512-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-38512-1

Receipt
The samples were received on 5/5/2021 5:10 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.7°C, 0.9°C and 1.8°C

Receipt Exceptions
The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): W-33_20210504 (410-38512-9). The container labels lists W-33_20210504, while the COC lists S-33_20210504. The sample IDs were entered per the client COC.

GC/MS VOA
Method 8260C_UST: The following sample(s) was collected in a properly preserved vial; however, the pH was outside the required criteria when verified by the laboratory. The sample was analyzed within the 7-day holding time specified for unpreserved samples: W-32_SL_20210504 (410-38512-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270D: The laboratory control sample (LCS) for preparation batch 410-125104 recovered outside control limits for the following analytes: Naphthalene. The associated sample(s) was re-prepared and/or re-analyzed outside holding time with acceptable results. The first set of data has been reported.

Method 8270D: The laboratory control sample (LCS) for preparation batch 410-125104 and analytical batch 410-125897 recovered outside control limits for the following analytes: Naphthalene and 2-Fluorobiphenyl (Surr). The associated sample(s) was re-prepared and/or re-analyzed outside holding time. The first set of data has been reported.

Method 8270D: Surrogate recovery for the following sample was outside control limits: B-132D_20210504 (410-38512-5). Re-extraction and/or re-analysis was performed outside of holding time with acceptable results.

Method 8270D: Surrogate recovery for the following sample was outside control limits: S-375_20210504 (410-38512-10). Re-extraction and/or re-analysis was performed outside of holding time with acceptable results.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
Method RSK_175: The following sample(s) were collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH at the time of analysis was 6: W-32_SL_20210504 (410-38512-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8011: The 1,1,2,2-Tetrachloroethane surrogate recovery for the following samples was outside acceptance limits (high biased) on the primary column due to matrix interference: S-223_20210504 (410-38512-3) and S-375_20210504 (410-38512-10). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Job ID: 410-38512-1 (Continued)

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

Method 5310C: The reference method requires samples to be preserved to a pH of <2. The following sample(s) were received with insufficient preservation at a pH of 5: W-32_SL_20210504 (410-38512-2). The sample(s) were preserved to the appropriate pH in the laboratory.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38512-1

Client Sample ID: RW-715_20210504 — Lab Sample ID: 410-38512-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,3,5-Trimethylbenzene	0.32	J	5.0	0.30	ug/L	1		8260C/UST	Total/NA
Toluene	2.4		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Xylenes, Total	3.9	J	6.0	1.4	ug/L	1		8260C/UST	Total/NA
Methyl tert-butyl ether	0.35	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Benzene	6.0		1.0	0.20	ug/L	1		8260C/UST	Total/NA
1,2,4-Trimethylbenzene	2.7	J	5.0	1.0	ug/L	1		8260C/UST	Total/NA
Isopropylbenzene	1.5	J	5.0	0.20	ug/L	1		8260C/UST	Total/NA
t-Butyl alcohol	12	J	50	12	ug/L	1		8260C/UST	Total/NA
Naphthalene	0.24	J	0.50	0.10	ug/L	1		8270D	Total/NA
Methane (1C) - DL	3200		100	60	ug/L	20		RSK-175	Total/NA
Sulfate	12000		5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	56000		500	96	ug/L	1		6010C	Total Recoverable
Iron	24000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	250000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	580	J	1000	500	ug/L	1		351.2	Total/NA
Total Carbon	65000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	1900		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	63000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: W-32_SL_20210504 — Lab Sample ID: 410-38512-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	0.24	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Benzene	4.2		1.0	0.20	ug/L	1		8260C/UST	Total/NA
1,2,4-Trimethylbenzene	1.8	J	5.0	1.0	ug/L	1		8260C/UST	Total/NA
Isopropylbenzene	1.4	J	5.0	0.20	ug/L	1		8260C/UST	Total/NA
t-Butyl alcohol	19	J	50	12	ug/L	1		8260C/UST	Total/NA
Anthracene	0.68		0.50	0.10	ug/L	1		8270D	Total/NA
Benzo[a]pyrene	0.48	J	0.50	0.11	ug/L	1		8270D	Total/NA
Benzo[b]fluoranthene	0.22	J	0.50	0.10	ug/L	1		8270D	Total/NA
Benzo[g,h,i]perylene	0.31	J	0.50	0.10	ug/L	1		8270D	Total/NA
Fluorene	2.6		0.50	0.12	ug/L	1		8270D	Total/NA
Phenanthrene	1.1		0.50	0.11	ug/L	1		8270D	Total/NA
Pyrene	0.72		0.50	0.10	ug/L	1		8270D	Total/NA
Ethane (1C)	3.7	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	6900		100	60	ug/L	20		RSK-175	Total/NA
Sulfate	370000		50000	15000	ug/L	50		EPA 300.0 R2.1	Total/NA
Calcium	290000		500	96	ug/L	1		6010C	Total Recoverable
Iron	1800		200	40	ug/L	1		6010C	Total Recoverable
Lead	0.65		0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	1700000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	3400		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	450000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	48000		10000	5000	ug/L	10		5310C-2011	Total/NA
Total Inorganic Carbon	400000		2000	600	ug/L	1		SM5310C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38512-1

Client Sample ID: S-223_20210504 — Lab Sample ID: 410-38512-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	540		5.0	2.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	230		25	1.5	ug/L	5		8260C/UST	Total/NA
Toluene	51		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	670		30	7.0	ug/L	5		8260C/UST	Total/NA
Benzene	830		5.0	1.0	ug/L	5		8260C/UST	Total/NA
1,2,4-Trimethylbenzene	470		25	5.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	27		25	1.0	ug/L	5		8260C/UST	Total/NA
Fluorene	1.3		0.52	0.13	ug/L	1		8270D	Total/NA
Naphthalene	110		0.52	0.10	ug/L	1		8270D	Total/NA
Phenanthrene	0.79		0.52	0.11	ug/L	1		8270D	Total/NA
Methane (1C) - DL	17000		500	300	ug/L	100		RSK-175	Total/NA
Calcium	32000		500	96	ug/L	1		6010C	Total Recoverable
Iron	81000		200	40	ug/L	1		6010C	Total Recoverable
Lead	0.074	J	0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	310000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	740	J	1000	500	ug/L	1		351.2	Total/NA
Total Carbon	98000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	6800		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	91000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: B-43_20210504 — Lab Sample ID: 410-38512-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.31	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Isopropylbenzene	6.4		5.0	0.20	ug/L	1		8260C/UST	Total/NA
Pyrene	0.51	J	0.55	0.11	ug/L	1		8270D	Total/NA
Ethane (1C)	1.7	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Ethene (1C)	16		5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	4100		100	60	ug/L	20		RSK-175	Total/NA
Calcium	9400		500	96	ug/L	1		6010C	Total Recoverable
Iron	1600		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	110000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	710	J	1000	500	ug/L	1		351.2	Total/NA
Total Carbon	24000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	2300		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	22000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: B-132D_20210504 — Lab Sample ID: 410-38512-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	2.1		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Benzene	0.21	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Anthracene	0.11	J *1	0.50	0.10	ug/L	1		8270D	Total/NA
Naphthalene	0.13	J *- *1	0.50	0.10	ug/L	1		8270D	Total/NA
Phenanthrene	0.27	J *1	0.50	0.11	ug/L	1		8270D	Total/NA
Pyrene	0.14	J	0.50	0.10	ug/L	1		8270D	Total/NA
Ethane (1C)	2.3	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	3500		100	60	ug/L	20		RSK-175	Total/NA
Sulfate	3700	J	5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: B-132D_20210504 (Continued)

Lab Sample ID: 410-38512-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	68000		500	96	ug/L	1		6010C	Total Recoverable
Iron	69000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	250000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	25000		10000	5000	ug/L	10		351.2	Total/NA
Total Carbon	63000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	5800		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	57000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-374_20210504

Lab Sample ID: 410-38512-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	890		5.0	2.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	140		25	1.5	ug/L	5		8260C/UST	Total/NA
Toluene	310		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	1900		30	7.0	ug/L	5		8260C/UST	Total/NA
Benzene	230		5.0	1.0	ug/L	5		8260C/UST	Total/NA
1,2,4-Trimethylbenzene	650		25	5.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	92		25	1.0	ug/L	5		8260C/UST	Total/NA
Fluorene	0.18	J *1	0.51	0.12	ug/L	1		8270D	Total/NA
Naphthalene - DL	220	*- *1	2.6	0.51	ug/L	5		8270D	Total/NA
Ethane (1C)	3.4	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	24000		1000	600	ug/L	200		RSK-175	Total/NA
Sulfate	2000	J	5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	290000		500	96	ug/L	1		6010C	Total Recoverable
Iron	1700		200	40	ug/L	1		6010C	Total Recoverable
Lead	0.34	J	0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	140000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	530	J	1000	500	ug/L	1		351.2	Total/NA
Total Carbon	61000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	6000		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	55000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: C-168_20210504

Lab Sample ID: 410-38512-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	0.25	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Isopropylbenzene	0.67	J	5.0	0.20	ug/L	1		8260C/UST	Total/NA
Anthracene	0.23	J *1	0.51	0.10	ug/L	1		8270D	Total/NA
Benzo[a]anthracene	0.68		0.51	0.10	ug/L	1		8270D	Total/NA
Benzo[a]pyrene	1.1		0.51	0.11	ug/L	1		8270D	Total/NA
Benzo[b]fluoranthene	1.3		0.51	0.10	ug/L	1		8270D	Total/NA
Benzo[g,h,i]perylene	0.55		0.51	0.10	ug/L	1		8270D	Total/NA
Chrysene	0.88		0.51	0.10	ug/L	1		8270D	Total/NA
Fluorene	0.46	J *1	0.51	0.12	ug/L	1		8270D	Total/NA
Phenanthrene	0.52	*1	0.51	0.11	ug/L	1		8270D	Total/NA
Pyrene	3.3		0.51	0.10	ug/L	1		8270D	Total/NA
Methane (1C) - DL	4700		100	60	ug/L	20		RSK-175	Total/NA
Sulfate	2700	J	5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: C-168_20210504 (Continued)

Lab Sample ID: 410-38512-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	76000		500	96	ug/L	1		6010C	Total Recoverable
Iron	9100		200	40	ug/L	1		6010C	Total Recoverable
Lead	0.091	J	0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	290000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	1700		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	88000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	16000		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	72000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: WP-A_20210504

Lab Sample ID: 410-38512-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.13	J	0.57	0.11	ug/L	1		8270D	Total/NA
Benzo[a]pyrene	0.38	J	0.57	0.13	ug/L	1		8270D	Total/NA
Benzo[b]fluoranthene	0.36	J	0.57	0.11	ug/L	1		8270D	Total/NA
Benzo[g,h,i]perylene	0.20	J	0.57	0.11	ug/L	1		8270D	Total/NA
Chrysene	0.37	J	0.57	0.11	ug/L	1		8270D	Total/NA
Pyrene	0.73		0.57	0.11	ug/L	1		8270D	Total/NA
Methane (1C) - DL	660		25	15	ug/L	5		RSK-175	Total/NA
Sulfate	3600	J	5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	36000		500	96	ug/L	1		6010C	Total Recoverable
Iron	850		200	40	ug/L	1		6010C	Total Recoverable
Lead	1.6		0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	130000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	580	J	1000	500	ug/L	1		351.2	Total/NA
Total Carbon	33000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	3100		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	30000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: W-33_20210504

Lab Sample ID: 410-38512-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	0.86	J	1.0	0.40	ug/L	1		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	0.33	J	5.0	0.30	ug/L	1		8260C/UST	Total/NA
Toluene	1.3		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Xylenes, Total	3.6	J	6.0	1.4	ug/L	1		8260C/UST	Total/NA
Benzene	9.4		1.0	0.20	ug/L	1		8260C/UST	Total/NA
1,2,4-Trimethylbenzene	1.3	J	5.0	1.0	ug/L	1		8260C/UST	Total/NA
Isopropylbenzene	0.69	J	5.0	0.20	ug/L	1		8260C/UST	Total/NA
Anthracene	0.34	J	0.50	0.10	ug/L	1		8270D	Total/NA
Fluorene	1.7		0.50	0.12	ug/L	1		8270D	Total/NA
Naphthalene	1.1		0.50	0.10	ug/L	1		8270D	Total/NA
Pyrene	0.48	J	0.50	0.10	ug/L	1		8270D	Total/NA
Methane (1C) - DL	8000		250	150	ug/L	50		RSK-175	Total/NA
Sulfate	2300	J	5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	200000		500	96	ug/L	1		6010C	Total Recoverable
Iron	9200		200	40	ug/L	1		6010C	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: W-33_20210504 (Continued)

Lab Sample ID: 410-38512-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.48	J	0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	700000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	5600		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	170000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	34000		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	140000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-375_20210504

Lab Sample ID: 410-38512-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	890		5.0	2.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	220		25	1.5	ug/L	5		8260C/UST	Total/NA
Toluene	390		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Benzene	490		5.0	1.0	ug/L	5		8260C/UST	Total/NA
1,2,4-Trimethylbenzene	630		25	5.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	39		25	1.0	ug/L	5		8260C/UST	Total/NA
t-Butyl alcohol	93	J	250	60	ug/L	5		8260C/UST	Total/NA
Xylenes, Total - DL	4200		300	70	ug/L	50		8260C/UST	Total/NA
Fluorene	0.18	J	0.50	0.12	ug/L	1		8270D	Total/NA
Phenanthrene	0.15	J	0.50	0.11	ug/L	1		8270D	Total/NA
Naphthalene - DL	190		2.5	0.50	ug/L	5		8270D	Total/NA
Ethane (1C)	2.0	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	19000		1000	600	ug/L	200		RSK-175	Total/NA
Calcium	23000		500	96	ug/L	1		6010C	Total Recoverable
Iron	74000		200	40	ug/L	1		6010C	Total Recoverable
Lead	0.12	J	0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	120000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Carbon	55000		25000	13000	ug/L	25		5310 B-2011	Total/NA
Total Organic Carbon	9200	FL	1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	46000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: TB_20210505

Lab Sample ID: 410-38512-11

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: RW-715_20210504

Date Collected: 05/04/21 09:55
Date Received: 05/05/21 17:10

Lab Sample ID: 410-38512-1

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/10/21 18:08	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/10/21 18:08	1
1,3,5-Trimethylbenzene	**0.32**	**J**	5.0	0.30	ug/L			05/10/21 18:08	1
Toluene	**2.4**		1.0	0.20	ug/L			05/10/21 18:08	1
Xylenes, Total	**3.9**	**J**	6.0	1.4	ug/L			05/10/21 18:08	1
Methyl tert-butyl ether	**0.35**	**J**	1.0	0.20	ug/L			05/10/21 18:08	1
Benzene	**6.0**		1.0	0.20	ug/L			05/10/21 18:08	1
1,2,4-Trimethylbenzene	**2.7**	**J**	5.0	1.0	ug/L			05/10/21 18:08	1
Isopropylbenzene	**1.5**	**J**	5.0	0.20	ug/L			05/10/21 18:08	1
t-Butyl alcohol	**12**	**J**	50	12	ug/L			05/10/21 18:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*		*05/10/21 18:08*	*1*
4-Bromofluorobenzene (Surr)	*108*		*80 - 120*		*05/10/21 18:08*	*1*
Dibromofluoromethane (Surr)	*94*		*80 - 120*		*05/10/21 18:08*	*1*
Toluene-d8 (Surr)	*108*		*80 - 120*		*05/10/21 18:08*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/11/21 10:09	05/13/21 06:02	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/11/21 10:09	05/13/21 06:02	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/11/21 10:09	05/13/21 06:02	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/11/21 10:09	05/13/21 06:02	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/11/21 10:09	05/13/21 06:02	1
Chrysene	ND		0.50	0.10	ug/L		05/11/21 10:09	05/13/21 06:02	1
Fluorene	ND		0.50	0.12	ug/L		05/11/21 10:09	05/13/21 06:02	1
Naphthalene	**0.24**	**J**	0.50	0.10	ug/L		05/11/21 10:09	05/13/21 06:02	1
Phenanthrene	ND		0.50	0.11	ug/L		05/11/21 10:09	05/13/21 06:02	1
Pyrene	ND		0.50	0.10	ug/L		05/11/21 10:09	05/13/21 06:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*70*		*44 - 102*	*05/11/21 10:09*	*05/13/21 06:02*	*1*
Nitrobenzene-d5 (Surr)	*65*		*23 - 128*	*05/11/21 10:09*	*05/13/21 06:02*	*1*
p-Terphenyl-d14 (Surr)	*63*		*31 - 113*	*05/11/21 10:09*	*05/13/21 06:02*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/07/21 09:57	05/07/21 19:04	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/07/21 09:57	05/07/21 19:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*87*		*28 - 140*	*05/07/21 09:57*	*05/07/21 19:04*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**3200**		100	60	ug/L		05/10/21 08:59	05/10/21 13:55	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*95*		*28 - 140*	*05/10/21 08:59*	*05/10/21 13:55*	*20*

Client Sample ID: RW-715_20210504

Lab Sample ID: 410-38512-1

Date Collected: 05/04/21 09:55

Matrix: Water

Date Received: 05/05/21 17:10

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0096	ug/L		05/10/21 21:05	05/11/21 07:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*102*		*46 - 136*	*05/10/21 21:05*	*05/11/21 07:07*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*98*		*46 - 136*	*05/10/21 21:05*	*05/11/21 07:07*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**12000**		5000	1500	ug/L			05/06/21 18:27	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**56000**		500	96	ug/L		05/06/21 14:45	05/11/21 18:48	1
Iron	**24000**		200	40	ug/L		05/06/21 14:45	05/11/21 18:48	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/06/21 16:06	05/10/21 13:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**250000**		8000	8000	ug/L			05/07/21 04:07	1
Total Kjeldahl Nitrogen	**580**	**J**	1000	500	ug/L		05/11/21 07:20	05/13/21 15:10	1
Total Carbon	**65000**		10000	5000	ug/L			05/08/21 21:52	10
Total Organic Carbon	**1900**		1000	500	ug/L			05/09/21 07:23	1
Total Inorganic Carbon	**63000**		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: W-32_SL_20210504

Lab Sample ID: 410-38512-2

Date Collected: 05/04/21 10:05

Matrix: Water

Date Received: 05/05/21 17:10

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/10/21 18:32	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/10/21 18:32	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/10/21 18:32	1
Toluene	**0.24**	**J**	1.0	0.20	ug/L			05/10/21 18:32	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/10/21 18:32	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/10/21 18:32	1
Benzene	**4.2**		1.0	0.20	ug/L			05/10/21 18:32	1
1,2,4-Trimethylbenzene	**1.8**	**J**	5.0	1.0	ug/L			05/10/21 18:32	1
Isopropylbenzene	**1.4**	**J**	5.0	0.20	ug/L			05/10/21 18:32	1
t-Butyl alcohol	**19**	**J**	50	12	ug/L			05/10/21 18:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*80 - 120*		*05/10/21 18:32*	*1*
4-Bromofluorobenzene (Surr)	*107*		*80 - 120*		*05/10/21 18:32*	*1*
Dibromofluoromethane (Surr)	*94*		*80 - 120*		*05/10/21 18:32*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*05/10/21 18:32*	*1*

Client Sample ID: W-32_SL_20210504

Date Collected: 05/04/21 10:05
Date Received: 05/05/21 17:10

Lab Sample ID: 410-38512-2

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**0.68**		0.50	0.10	ug/L		05/11/21 10:09	05/13/21 06:31	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/11/21 10:09	05/13/21 06:31	1
Benzo[a]pyrene	**0.48**	**J**	0.50	0.11	ug/L		05/11/21 10:09	05/13/21 06:31	1
Benzo[b]fluoranthene	**0.22**	**J**	0.50	0.10	ug/L		05/11/21 10:09	05/13/21 06:31	1
Benzo[g,h,i]perylene	**0.31**	**J**	0.50	0.10	ug/L		05/11/21 10:09	05/13/21 06:31	1
Chrysene	ND		0.50	0.10	ug/L		05/11/21 10:09	05/13/21 06:31	1
Fluorene	**2.6**		0.50	0.12	ug/L		05/11/21 10:09	05/13/21 06:31	1
Naphthalene	ND		0.50	0.10	ug/L		05/11/21 10:09	05/13/21 06:31	1
Phenanthrene	**1.1**		0.50	0.11	ug/L		05/11/21 10:09	05/13/21 06:31	1
Pyrene	**0.72**		0.50	0.10	ug/L		05/11/21 10:09	05/13/21 06:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*57*		*44 - 102*	*05/11/21 10:09*	*05/13/21 06:31*	*1*
Nitrobenzene-d5 (Surr)	*53*		*23 - 128*	*05/11/21 10:09*	*05/13/21 06:31*	*1*
p-Terphenyl-d14 (Surr)	*63*		*31 - 113*	*05/11/21 10:09*	*05/13/21 06:31*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**3.7**	**J**	5.0	1.0	ug/L		05/07/21 09:57	05/07/21 19:23	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/07/21 09:57	05/07/21 19:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*69*		*28 - 140*	*05/07/21 09:57*	*05/07/21 19:23*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**6900**		100	60	ug/L		05/10/21 08:59	05/10/21 14:14	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*93*		*28 - 140*	*05/10/21 08:59*	*05/10/21 14:14*	*20*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.028	0.0094	ug/L		05/10/21 21:05	05/11/21 07:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*109*		*46 - 136*	*05/10/21 21:05*	*05/11/21 07:24*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*108*		*46 - 136*	*05/10/21 21:05*	*05/11/21 07:24*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**370000**		50000	15000	ug/L			05/06/21 18:37	50

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**290000**		500	96	ug/L		05/06/21 14:45	05/11/21 18:54	1
Iron	**1800**		200	40	ug/L		05/06/21 14:45	05/11/21 18:54	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.65**		0.52	0.073	ug/L		05/06/21 16:06	05/10/21 13:33	1

Client Sample ID: W-32_SL_20210504

Lab Sample ID: 410-38512-2

Date Collected: 05/04/21 10:05

Matrix: Water

Date Received: 05/05/21 17:10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**1700000**		8000	8000	ug/L			05/07/21 03:18	1
Total Kjeldahl Nitrogen	**3400**		1000	500	ug/L		05/11/21 07:20	05/13/21 15:16	1
Total Carbon	**450000**		10000	5000	ug/L			05/08/21 22:03	10
Total Organic Carbon	**48000**		10000	5000	ug/L			05/09/21 08:44	10
Total Inorganic Carbon	**400000**		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: S-223_20210504

Lab Sample ID: 410-38512-3

Date Collected: 05/04/21 11:25

Matrix: Water

Date Received: 05/05/21 17:10

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**540**		5.0	2.0	ug/L			05/11/21 15:02	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			05/11/21 15:02	5
1,3,5-Trimethylbenzene	**230**		25	1.5	ug/L			05/11/21 15:02	5
Toluene	**51**		5.0	1.0	ug/L			05/11/21 15:02	5
Xylenes, Total	**670**		30	7.0	ug/L			05/11/21 15:02	5
Methyl tert-butyl ether	ND		5.0	1.0	ug/L			05/11/21 15:02	5
Benzene	**830**		5.0	1.0	ug/L			05/11/21 15:02	5
1,2,4-Trimethylbenzene	**470**		25	5.0	ug/L			05/11/21 15:02	5
Isopropylbenzene	**27**		25	1.0	ug/L			05/11/21 15:02	5
t-Butyl alcohol	ND		250	60	ug/L			05/11/21 15:02	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*80*		*80 - 120*		*05/11/21 15:02*	*5*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*05/11/21 15:02*	*5*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*05/11/21 15:02*	*5*
Toluene-d8 (Surr)	*105*		*80 - 120*		*05/11/21 15:02*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.52	0.10	ug/L		05/11/21 10:09	05/13/21 07:00	1
Benzo[a]anthracene	ND		0.52	0.10	ug/L		05/11/21 10:09	05/13/21 07:00	1
Benzo[a]pyrene	ND		0.52	0.11	ug/L		05/11/21 10:09	05/13/21 07:00	1
Benzo[b]fluoranthene	ND		0.52	0.10	ug/L		05/11/21 10:09	05/13/21 07:00	1
Benzo[g,h,i]perylene	ND		0.52	0.10	ug/L		05/11/21 10:09	05/13/21 07:00	1
Chrysene	ND		0.52	0.10	ug/L		05/11/21 10:09	05/13/21 07:00	1
Fluorene	**1.3**		0.52	0.13	ug/L		05/11/21 10:09	05/13/21 07:00	1
Naphthalene	**110**		0.52	0.10	ug/L		05/11/21 10:09	05/13/21 07:00	1
Phenanthrene	**0.79**		0.52	0.11	ug/L		05/11/21 10:09	05/13/21 07:00	1
Pyrene	ND		0.52	0.10	ug/L		05/11/21 10:09	05/13/21 07:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*66*		*44 - 102*	*05/11/21 10:09*	*05/13/21 07:00*	*1*
Nitrobenzene-d5 (Surr)	*68*		*23 - 128*	*05/11/21 10:09*	*05/13/21 07:00*	*1*
p-Terphenyl-d14 (Surr)	*77*		*31 - 113*	*05/11/21 10:09*	*05/13/21 07:00*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/07/21 09:57	05/07/21 19:41	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/07/21 09:57	05/07/21 19:41	1

Client Sample ID: S-223_20210504

Lab Sample ID: 410-38512-3

Date Collected: 05/04/21 11:25

Matrix: Water

Date Received: 05/05/21 17:10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*83*		*28 - 140*	*05/07/21 09:57*	*05/07/21 19:41*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**17000**		500	300	ug/L		05/10/21 08:59	05/10/21 14:32	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*101*		*28 - 140*	*05/10/21 08:59*	*05/10/21 14:32*	*100*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (2C)	ND		0.029	0.0096	ug/L		05/10/21 21:05	05/11/21 07:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*154*	*S1+*	*46 - 136*	*05/10/21 21:05*	*05/11/21 07:41*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*91*		*46 - 136*	*05/10/21 21:05*	*05/11/21 07:41*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			05/06/21 18:57	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**32000**		500	96	ug/L		05/06/21 14:45	05/11/21 18:51	1
Iron	**81000**		200	40	ug/L		05/06/21 14:45	05/11/21 18:51	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.074**	**J**	0.52	0.073	ug/L		05/06/21 16:06	05/10/21 13:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**310000**		8000	8000	ug/L			05/07/21 04:00	1
Total Kjeldahl Nitrogen	**740**	**J**	1000	500	ug/L		05/11/21 07:20	05/13/21 15:18	1
Total Carbon	**98000**		10000	5000	ug/L			05/08/21 22:14	10
Total Organic Carbon	**6800**		1000	500	ug/L			05/09/21 09:01	1
Total Inorganic Carbon	**91000**		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: B-43_20210504

Lab Sample ID: 410-38512-4

Date Collected: 05/04/21 12:10

Matrix: Water

Date Received: 05/05/21 17:10

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/10/21 18:56	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/10/21 18:56	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/10/21 18:56	1
Toluene	ND		1.0	0.20	ug/L			05/10/21 18:56	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/10/21 18:56	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/10/21 18:56	1
Benzene	**0.31**	**J**	1.0	0.20	ug/L			05/10/21 18:56	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/10/21 18:56	1

Client Sample ID: B-43_20210504
Date Collected: 05/04/21 12:10
Date Received: 05/05/21 17:10

Lab Sample ID: 410-38512-4
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	**6.4**		5.0	0.20	ug/L			05/10/21 18:56	1
t-Butyl alcohol	ND		50	12	ug/L			05/10/21 18:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*		*05/10/21 18:56*	*1*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*		*05/10/21 18:56*	*1*
Dibromofluoromethane (Surr)	*91*		*80 - 120*		*05/10/21 18:56*	*1*
Toluene-d8 (Surr)	*105*		*80 - 120*		*05/10/21 18:56*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND	*1	0.55	0.11	ug/L		05/11/21 19:00	05/13/21 20:52	1
Benzo[a]anthracene	ND		0.55	0.11	ug/L		05/11/21 19:00	05/13/21 20:52	1
Benzo[a]pyrene	ND		0.55	0.12	ug/L		05/11/21 19:00	05/13/21 20:52	1
Benzo[b]fluoranthene	ND		0.55	0.11	ug/L		05/11/21 19:00	05/13/21 20:52	1
Benzo[g,h,i]perylene	ND		0.55	0.11	ug/L		05/11/21 19:00	05/13/21 20:52	1
Chrysene	ND		0.55	0.11	ug/L		05/11/21 19:00	05/13/21 20:52	1
Fluorene	ND	*1	0.55	0.13	ug/L		05/11/21 19:00	05/13/21 20:52	1
Naphthalene	ND	*- *1	0.55	0.11	ug/L		05/11/21 19:00	05/13/21 20:52	1
Phenanthrene	ND	*1	0.55	0.12	ug/L		05/11/21 19:00	05/13/21 20:52	1
Pyrene	**0.51**	**J**	0.55	0.11	ug/L		05/11/21 19:00	05/13/21 20:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*80*		*44 - 102*	*05/11/21 19:00*	*05/13/21 20:52*	*1*
Nitrobenzene-d5 (Surr)	*77*		*23 - 128*	*05/11/21 19:00*	*05/13/21 20:52*	*1*
p-Terphenyl-d14 (Surr)	*75*		*31 - 113*	*05/11/21 19:00*	*05/13/21 20:52*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**1.7**	**J**	5.0	1.0	ug/L		05/07/21 09:57	05/07/21 20:00	1
Ethene (1C)	**16**		5.0	1.0	ug/L		05/07/21 09:57	05/07/21 20:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*120*		*28 - 140*	*05/07/21 09:57*	*05/07/21 20:00*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**4100**		100	60	ug/L		05/10/21 08:59	05/10/21 14:50	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*100*		*28 - 140*	*05/10/21 08:59*	*05/10/21 14:50*	*20*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0097	ug/L		05/10/21 21:05	05/11/21 07:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*102*		*46 - 136*	*05/10/21 21:05*	*05/11/21 07:58*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*100*		*46 - 136*	*05/10/21 21:05*	*05/11/21 07:58*	*1*

Client Sample ID: B-43_20210504

Lab Sample ID: 410-38512-4

Date Collected: 05/04/21 12:10
Matrix: Water
Date Received: 05/05/21 17:10

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			05/06/21 19:08	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**9400**		500	96	ug/L		05/06/21 14:45	05/11/21 18:26	1
Iron	**1600**		200	40	ug/L		05/06/21 14:45	05/11/21 18:26	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/06/21 16:06	05/10/21 13:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**110000**		8000	8000	ug/L			05/07/21 03:47	1
Total Kjeldahl Nitrogen	**710**	**J**	1000	500	ug/L		05/11/21 07:20	05/13/21 15:20	1
Total Carbon	**24000**		10000	5000	ug/L			05/08/21 22:47	10
Total Organic Carbon	**2300**		1000	500	ug/L			05/09/21 09:17	1
Total Inorganic Carbon	**22000**		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: B-132D_20210504

Lab Sample ID: 410-38512-5

Date Collected: 05/04/21 10:35
Matrix: Water
Date Received: 05/05/21 17:10

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/11/21 11:27	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/11/21 11:27	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/11/21 11:27	1
Toluene	ND		1.0	0.20	ug/L			05/11/21 11:27	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/11/21 11:27	1
Methyl tert-butyl ether	**2.1**		1.0	0.20	ug/L			05/11/21 11:27	1
Benzene	**0.21**	**J**	1.0	0.20	ug/L			05/11/21 11:27	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/11/21 11:27	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/11/21 11:27	1
t-Butyl alcohol	ND		50	12	ug/L			05/11/21 11:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*89*		*80 - 120*		*05/11/21 11:27*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*05/11/21 11:27*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*05/11/21 11:27*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/11/21 11:27*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**0.11**	**J *1**	0.50	0.10	ug/L		05/11/21 19:00	05/13/21 21:22	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/11/21 19:00	05/13/21 21:22	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/11/21 19:00	05/13/21 21:22	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/11/21 19:00	05/13/21 21:22	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/11/21 19:00	05/13/21 21:22	1
Chrysene	ND		0.50	0.10	ug/L		05/11/21 19:00	05/13/21 21:22	1
Fluorene	ND	*1	0.50	0.12	ug/L		05/11/21 19:00	05/13/21 21:22	1

Client Sample ID: B-132D_20210504
Date Collected: 05/04/21 10:35
Date Received: 05/05/21 17:10

Lab Sample ID: 410-38512-5
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.13	J *- *1	0.50	0.10	ug/L		05/11/21 19:00	05/13/21 21:22	1
Phenanthrene	0.27	J *1	0.50	0.11	ug/L		05/11/21 19:00	05/13/21 21:22	1
Pyrene	0.14	J	0.50	0.10	ug/L		05/11/21 19:00	05/13/21 21:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*82*		*44 - 102*	*05/11/21 19:00*	*05/13/21 21:22*	*1*
Nitrobenzene-d5 (Surr)	*20*	*S1-*	*23 - 128*	*05/11/21 19:00*	*05/13/21 21:22*	*1*
p-Terphenyl-d14 (Surr)	*71*		*31 - 113*	*05/11/21 19:00*	*05/13/21 21:22*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	2.3	J	5.0	1.0	ug/L		05/07/21 09:57	05/07/21 20:19	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/07/21 09:57	05/07/21 20:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*86*		*28 - 140*	*05/07/21 09:57*	*05/07/21 20:19*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	3500		100	60	ug/L		05/10/21 08:59	05/10/21 15:08	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*100*		*28 - 140*	*05/10/21 08:59*	*05/10/21 15:08*	*20*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0098	ug/L		05/10/21 21:05	05/11/21 08:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*92*		*46 - 136*	*05/10/21 21:05*	*05/11/21 08:15*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*97*		*46 - 136*	*05/10/21 21:05*	*05/11/21 08:15*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	3700	J	5000	1500	ug/L			05/06/21 19:18	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	68000		500	96	ug/L		05/06/21 14:45	05/11/21 18:44	1
Iron	69000		200	40	ug/L		05/06/21 14:45	05/11/21 18:44	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/06/21 16:06	05/10/21 13:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	250000		8000	8000	ug/L			05/07/21 00:37	1
Total Kjeldahl Nitrogen	25000		10000	5000	ug/L		05/11/21 07:20	05/13/21 15:50	10
Total Carbon	63000		10000	5000	ug/L			05/08/21 22:57	10
Total Organic Carbon	5800		1000	500	ug/L			05/09/21 09:33	1
Total Inorganic Carbon	57000		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: S-374_20210504
Date Collected: 05/04/21 13:20
Date Received: 05/05/21 17:10

Lab Sample ID: 410-38512-6
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**890**		5.0	2.0	ug/L			05/12/21 18:11	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			05/12/21 18:11	5
1,3,5-Trimethylbenzene	**140**		25	1.5	ug/L			05/12/21 18:11	5
Toluene	**310**		5.0	1.0	ug/L			05/12/21 18:11	5
Xylenes, Total	**1900**		30	7.0	ug/L			05/12/21 18:11	5
Methyl tert-butyl ether	ND		5.0	1.0	ug/L			05/12/21 18:11	5
Benzene	**230**		5.0	1.0	ug/L			05/12/21 18:11	5
1,2,4-Trimethylbenzene	**650**		25	5.0	ug/L			05/12/21 18:11	5
Isopropylbenzene	**92**		25	1.0	ug/L			05/12/21 18:11	5
t-Butyl alcohol	ND		250	60	ug/L			05/12/21 18:11	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*80 - 120*		*05/12/21 18:11*	*5*
4-Bromofluorobenzene (Surr)	*89*		*80 - 120*		*05/12/21 18:11*	*5*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*05/12/21 18:11*	*5*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/12/21 18:11*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND	*1	0.51	0.10	ug/L		05/11/21 19:00	05/14/21 02:39	1
Benzo[a]anthracene	ND		0.51	0.10	ug/L		05/11/21 19:00	05/14/21 02:39	1
Benzo[a]pyrene	ND		0.51	0.11	ug/L		05/11/21 19:00	05/14/21 02:39	1
Benzo[b]fluoranthene	ND		0.51	0.10	ug/L		05/11/21 19:00	05/14/21 02:39	1
Benzo[g,h,i]perylene	ND		0.51	0.10	ug/L		05/11/21 19:00	05/14/21 02:39	1
Chrysene	ND		0.51	0.10	ug/L		05/11/21 19:00	05/14/21 02:39	1
Fluorene	**0.18**	**J *1**	0.51	0.12	ug/L		05/11/21 19:00	05/14/21 02:39	1
Phenanthrene	ND	*1	0.51	0.11	ug/L		05/11/21 19:00	05/14/21 02:39	1
Pyrene	ND		0.51	0.10	ug/L		05/11/21 19:00	05/14/21 02:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*72*		*44 - 102*	*05/11/21 19:00*	*05/14/21 02:39*	*1*
Nitrobenzene-d5 (Surr)	*43*		*23 - 128*	*05/11/21 19:00*	*05/14/21 02:39*	*1*
p-Terphenyl-d14 (Surr)	*73*		*31 - 113*	*05/11/21 19:00*	*05/14/21 02:39*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**220**	***- *1**	2.6	0.51	ug/L		05/11/21 19:00	05/14/21 14:16	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*74*		*44 - 102*	*05/11/21 19:00*	*05/14/21 14:16*	*5*
Nitrobenzene-d5 (Surr)	*43*		*23 - 128*	*05/11/21 19:00*	*05/14/21 14:16*	*5*
p-Terphenyl-d14 (Surr)	*82*		*31 - 113*	*05/11/21 19:00*	*05/14/21 14:16*	*5*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**3.4**	**J**	5.0	1.0	ug/L		05/07/21 09:57	05/07/21 20:55	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/07/21 09:57	05/07/21 20:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*98*		*28 - 140*	*05/07/21 09:57*	*05/07/21 20:55*	*1*

Client Sample ID: S-374_20210504

Lab Sample ID: 410-38512-6

Date Collected: 05/04/21 13:20

Matrix: Water

Date Received: 05/05/21 17:10

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**24000**		1000	600	ug/L		05/10/21 08:59	05/10/21 15:26	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*100*		*28 - 140*	*05/10/21 08:59*	*05/10/21 15:26*	*200*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0096	ug/L		05/10/21 21:05	05/11/21 08:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*133*		*46 - 136*	*05/10/21 21:05*	*05/11/21 08:32*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*98*		*46 - 136*	*05/10/21 21:05*	*05/11/21 08:32*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**2000**	**J**	5000	1500	ug/L			05/06/21 20:51	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**290000**		500	96	ug/L		05/06/21 14:45	05/11/21 18:41	1
Iron	**1700**		200	40	ug/L		05/06/21 14:45	05/11/21 18:41	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.34**	**J**	0.52	0.073	ug/L		05/06/21 16:06	05/10/21 13:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**140000**		8000	8000	ug/L			05/07/21 00:43	1
Total Kjeldahl Nitrogen	**530**	**J**	1000	500	ug/L		05/11/21 07:20	05/13/21 15:23	1
Total Carbon	**61000**		10000	5000	ug/L			05/08/21 23:08	10
Total Organic Carbon	**6000**		1000	500	ug/L			05/09/21 10:23	1
Total Inorganic Carbon	**55000**		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: C-168_20210504

Lab Sample ID: 410-38512-7

Date Collected: 05/04/21 13:35

Matrix: Water

Date Received: 05/05/21 17:10

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/11/21 11:51	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/11/21 11:51	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/11/21 11:51	1
Toluene	**0.25**	**J**	1.0	0.20	ug/L			05/11/21 11:51	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/11/21 11:51	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/11/21 11:51	1
Benzene	ND		1.0	0.20	ug/L			05/11/21 11:51	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/11/21 11:51	1
Isopropylbenzene	**0.67**	**J**	5.0	0.20	ug/L			05/11/21 11:51	1
t-Butyl alcohol	ND		50	12	ug/L			05/11/21 11:51	1

Client Sample ID: C-168_20210504

Date Collected: 05/04/21 13:35
Date Received: 05/05/21 17:10

Lab Sample ID: 410-38512-7

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*		*05/11/21 11:51*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*05/11/21 11:51*	*1*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*05/11/21 11:51*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*05/11/21 11:51*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**0.23**	**J *1**	0.51	0.10	ug/L		05/11/21 19:00	05/14/21 03:09	1
Benzo[a]anthracene	**0.68**		0.51	0.10	ug/L		05/11/21 19:00	05/14/21 03:09	1
Benzo[a]pyrene	**1.1**		0.51	0.11	ug/L		05/11/21 19:00	05/14/21 03:09	1
Benzo[b]fluoranthene	**1.3**		0.51	0.10	ug/L		05/11/21 19:00	05/14/21 03:09	1
Benzo[g,h,i]perylene	**0.55**		0.51	0.10	ug/L		05/11/21 19:00	05/14/21 03:09	1
Chrysene	**0.88**		0.51	0.10	ug/L		05/11/21 19:00	05/14/21 03:09	1
Fluorene	**0.46**	**J *1**	0.51	0.12	ug/L		05/11/21 19:00	05/14/21 03:09	1
Naphthalene	ND	*- *1	0.51	0.10	ug/L		05/11/21 19:00	05/14/21 03:09	1
Phenanthrene	**0.52**	***1**	0.51	0.11	ug/L		05/11/21 19:00	05/14/21 03:09	1
Pyrene	**3.3**		0.51	0.10	ug/L		05/11/21 19:00	05/14/21 03:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	*75*		*44 - 102*	*05/11/21 19:00*	*05/14/21 03:09*	*1*
Nitrobenzene-d5 (Surr)	*70*		*23 - 128*	*05/11/21 19:00*	*05/14/21 03:09*	*1*
p-Terphenyl-d14 (Surr)	*69*		*31 - 113*	*05/11/21 19:00*	*05/14/21 03:09*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/07/21 09:57	05/07/21 21:13	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/07/21 09:57	05/07/21 21:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Propene (1C)	*84*		*28 - 140*	*05/07/21 09:57*	*05/07/21 21:13*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**4700**		100	60	ug/L		05/10/21 09:22	05/10/21 16:57	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Propene (1C)	*107*		*28 - 140*	*05/10/21 09:22*	*05/10/21 16:57*	*20*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0096	ug/L		05/10/21 21:05	05/11/21 08:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane (Surr) (1C)	*108*		*46 - 136*	*05/10/21 21:05*	*05/11/21 08:49*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*114*		*46 - 136*	*05/10/21 21:05*	*05/11/21 08:49*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**2700**	**J**	5000	1500	ug/L			05/06/21 20:15	5

Client Sample ID: C-168_20210504

Lab Sample ID: 410-38512-7

Date Collected: 05/04/21 13:35
Matrix: Water
Date Received: 05/05/21 17:10

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	76000		500	96	ug/L		05/06/21 14:45	05/11/21 18:38	1
Iron	9100		200	40	ug/L		05/06/21 14:45	05/11/21 18:38	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.091	J	0.52	0.073	ug/L		05/06/21 16:06	05/10/21 13:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	290000		8000	8000	ug/L			05/07/21 03:25	1
Total Kjeldahl Nitrogen	1700		1000	500	ug/L		05/11/21 07:20	05/13/21 15:29	1
Total Carbon	88000		10000	5000	ug/L			05/08/21 23:19	10
Total Organic Carbon	16000		1000	500	ug/L			05/09/21 10:39	1
Total Inorganic Carbon	72000		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: WP-A_20210504

Lab Sample ID: 410-38512-8

Date Collected: 05/04/21 14:00
Matrix: Water
Date Received: 05/05/21 17:10

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/11/21 12:15	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/11/21 12:15	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/11/21 12:15	1
Toluene	ND		1.0	0.20	ug/L			05/11/21 12:15	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/11/21 12:15	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/11/21 12:15	1
Benzene	ND		1.0	0.20	ug/L			05/11/21 12:15	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/11/21 12:15	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/11/21 12:15	1
t-Butyl alcohol	ND		50	12	ug/L			05/11/21 12:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*		*05/11/21 12:15*	*1*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*05/11/21 12:15*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 120*		*05/11/21 12:15*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*05/11/21 12:15*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.57	0.11	ug/L		05/11/21 10:10	05/12/21 08:16	1
Benzo[a]anthracene	0.13	J	0.57	0.11	ug/L		05/11/21 10:10	05/12/21 08:16	1
Benzo[a]pyrene	0.38	J	0.57	0.13	ug/L		05/11/21 10:10	05/12/21 08:16	1
Benzo[b]fluoranthene	0.36	J	0.57	0.11	ug/L		05/11/21 10:10	05/12/21 08:16	1
Benzo[g,h,i]perylene	0.20	J	0.57	0.11	ug/L		05/11/21 10:10	05/12/21 08:16	1
Chrysene	0.37	J	0.57	0.11	ug/L		05/11/21 10:10	05/12/21 08:16	1
Fluorene	ND		0.57	0.14	ug/L		05/11/21 10:10	05/12/21 08:16	1
Naphthalene	ND		0.57	0.11	ug/L		05/11/21 10:10	05/12/21 08:16	1
Phenanthrene	ND		0.57	0.13	ug/L		05/11/21 10:10	05/12/21 08:16	1
Pyrene	0.73		0.57	0.11	ug/L		05/11/21 10:10	05/12/21 08:16	1

Client Sample ID: WP-A_20210504
Date Collected: 05/04/21 14:00
Date Received: 05/05/21 17:10

Lab Sample ID: 410-38512-8
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*73*		*44 - 102*	*05/11/21 10:10*	*05/12/21 08:16*	*1*
Nitrobenzene-d5 (Surr)	*73*		*23 - 128*	*05/11/21 10:10*	*05/12/21 08:16*	*1*
p-Terphenyl-d14 (Surr)	*86*		*31 - 113*	*05/11/21 10:10*	*05/12/21 08:16*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/07/21 09:57	05/07/21 21:32	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/07/21 09:57	05/07/21 21:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*95*		*28 - 140*	*05/07/21 09:57*	*05/07/21 21:32*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**660**		25	15	ug/L		05/10/21 09:22	05/10/21 17:15	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*95*		*28 - 140*	*05/10/21 09:22*	*05/10/21 17:15*	*5*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.0099	ug/L		05/10/21 21:05	05/11/21 09:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*117*		*46 - 136*	*05/10/21 21:05*	*05/11/21 09:06*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*112*		*46 - 136*	*05/10/21 21:05*	*05/11/21 09:06*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**3600**	**J**	5000	1500	ug/L			05/06/21 19:21	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**36000**		500	96	ug/L		05/06/21 14:45	05/11/21 18:08	1
Iron	**850**		200	40	ug/L		05/06/21 14:45	05/11/21 18:08	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**1.6**		0.52	0.073	ug/L		05/06/21 16:06	05/10/21 13:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**130000**		8000	8000	ug/L			05/07/21 03:31	1
Total Kjeldahl Nitrogen	**580**	**J**	1000	500	ug/L		05/11/21 07:20	05/13/21 15:27	1
Total Carbon	**33000**		10000	5000	ug/L			05/08/21 23:29	10
Total Organic Carbon	**3100**		1000	500	ug/L			05/09/21 10:55	1
Total Inorganic Carbon	**30000**		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: W-33_20210504
Date Collected: 05/04/21 12:55
Date Received: 05/05/21 17:10

Lab Sample ID: 410-38512-9
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**0.86**	**J**	1.0	0.40	ug/L			05/11/21 12:38	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/11/21 12:38	1
1,3,5-Trimethylbenzene	**0.33**	**J**	5.0	0.30	ug/L			05/11/21 12:38	1
Toluene	**1.3**		1.0	0.20	ug/L			05/11/21 12:38	1
Xylenes, Total	**3.6**	**J**	6.0	1.4	ug/L			05/11/21 12:38	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/11/21 12:38	1
Benzene	**9.4**		1.0	0.20	ug/L			05/11/21 12:38	1
1,2,4-Trimethylbenzene	**1.3**	**J**	5.0	1.0	ug/L			05/11/21 12:38	1
Isopropylbenzene	**0.69**	**J**	5.0	0.20	ug/L			05/11/21 12:38	1
t-Butyl alcohol	ND		50	12	ug/L			05/11/21 12:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*89*		*80 - 120*		*05/11/21 12:38*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*05/11/21 12:38*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*05/11/21 12:38*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/11/21 12:38*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**0.34**	**J**	0.50	0.10	ug/L		05/11/21 10:10	05/12/21 08:45	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/11/21 10:10	05/12/21 08:45	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/11/21 10:10	05/12/21 08:45	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/11/21 10:10	05/12/21 08:45	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/11/21 10:10	05/12/21 08:45	1
Chrysene	ND		0.50	0.10	ug/L		05/11/21 10:10	05/12/21 08:45	1
Fluorene	**1.7**		0.50	0.12	ug/L		05/11/21 10:10	05/12/21 08:45	1
Naphthalene	**1.1**		0.50	0.10	ug/L		05/11/21 10:10	05/12/21 08:45	1
Phenanthrene	ND		0.50	0.11	ug/L		05/11/21 10:10	05/12/21 08:45	1
Pyrene	**0.48**	**J**	0.50	0.10	ug/L		05/11/21 10:10	05/12/21 08:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*69*		*44 - 102*	*05/11/21 10:10*	*05/12/21 08:45*	*1*
Nitrobenzene-d5 (Surr)	*71*		*23 - 128*	*05/11/21 10:10*	*05/12/21 08:45*	*1*
p-Terphenyl-d14 (Surr)	*83*		*31 - 113*	*05/11/21 10:10*	*05/12/21 08:45*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/07/21 09:57	05/07/21 21:50	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/07/21 09:57	05/07/21 21:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*82*		*28 - 140*	*05/07/21 09:57*	*05/07/21 21:50*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**8000**		250	150	ug/L		05/10/21 09:22	05/10/21 17:33	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*111*		*28 - 140*	*05/10/21 09:22*	*05/10/21 17:33*	*50*

Client Sample ID: W-33_20210504

Lab Sample ID: 410-38512-9

Date Collected: 05/04/21 12:55

Matrix: Water

Date Received: 05/05/21 17:10

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0097	ug/L		05/10/21 21:05	05/11/21 09:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*95*		*46 - 136*	*05/10/21 21:05*	*05/11/21 09:22*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*99*		*46 - 136*	*05/10/21 21:05*	*05/11/21 09:22*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**2300**	**J**	5000	1500	ug/L			05/06/21 21:28	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**200000**		500	96	ug/L		05/06/21 14:45	05/11/21 18:29	1
Iron	**9200**		200	40	ug/L		05/06/21 14:45	05/11/21 18:29	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.48**	**J**	0.52	0.073	ug/L		05/06/21 16:06	05/10/21 13:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**700000**		8000	8000	ug/L			05/07/21 03:04	1
Total Kjeldahl Nitrogen	**5600**		1000	500	ug/L		05/11/21 07:20	05/13/21 15:31	1
Total Carbon	**170000**		10000	5000	ug/L			05/08/21 23:40	10
Total Organic Carbon	**34000**		1000	500	ug/L			05/09/21 12:34	1
Total Inorganic Carbon	**140000**		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: S-375_20210504

Lab Sample ID: 410-38512-10

Date Collected: 05/04/21 14:30

Matrix: Water

Date Received: 05/05/21 17:10

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**890**		5.0	2.0	ug/L			05/11/21 16:13	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			05/11/21 16:13	5
1,3,5-Trimethylbenzene	**220**		25	1.5	ug/L			05/11/21 16:13	5
Toluene	**390**		5.0	1.0	ug/L			05/11/21 16:13	5
Methyl tert-butyl ether	ND		5.0	1.0	ug/L			05/11/21 16:13	5
Benzene	**490**		5.0	1.0	ug/L			05/11/21 16:13	5
1,2,4-Trimethylbenzene	**630**		25	5.0	ug/L			05/11/21 16:13	5
Isopropylbenzene	**39**		25	1.0	ug/L			05/11/21 16:13	5
t-Butyl alcohol	**93**	**J**	250	60	ug/L			05/11/21 16:13	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*80 - 120*		*05/11/21 16:13*	*5*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*05/11/21 16:13*	*5*
Dibromofluoromethane (Surr)	*100*		*80 - 120*		*05/11/21 16:13*	*5*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/11/21 16:13*	*5*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	**4200**		300	70	ug/L			05/11/21 16:37	50

Client Sample ID: S-375_20210504
Date Collected: 05/04/21 14:30
Date Received: 05/05/21 17:10

Lab Sample ID: 410-38512-10
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		80 - 120		05/11/21 16:37	50
4-Bromofluorobenzene (Surr)	90		80 - 120		05/11/21 16:37	50
Dibromofluoromethane (Surr)	105		80 - 120		05/11/21 16:37	50
Toluene-d8 (Surr)	103		80 - 120		05/11/21 16:37	50

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/11/21 10:10	05/12/21 09:14	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/11/21 10:10	05/12/21 09:14	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/11/21 10:10	05/12/21 09:14	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/11/21 10:10	05/12/21 09:14	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/11/21 10:10	05/12/21 09:14	1
Chrysene	ND		0.50	0.10	ug/L		05/11/21 10:10	05/12/21 09:14	1
Fluorene	**0.18**	**J**	0.50	0.12	ug/L		05/11/21 10:10	05/12/21 09:14	1
Phenanthrene	**0.15**	**J**	0.50	0.11	ug/L		05/11/21 10:10	05/12/21 09:14	1
Pyrene	ND		0.50	0.10	ug/L		05/11/21 10:10	05/12/21 09:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	74		44 - 102	05/11/21 10:10	05/12/21 09:14	1
Nitrobenzene-d5 (Surr)	3	S1-	23 - 128	05/11/21 10:10	05/12/21 09:14	1
p-Terphenyl-d14 (Surr)	80		31 - 113	05/11/21 10:10	05/12/21 09:14	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**190**		2.5	0.50	ug/L		05/11/21 10:10	05/12/21 20:28	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	73		44 - 102	05/11/21 10:10	05/12/21 20:28	5
Nitrobenzene-d5 (Surr)	2	S1-	23 - 128	05/11/21 10:10	05/12/21 20:28	5
p-Terphenyl-d14 (Surr)	77		31 - 113	05/11/21 10:10	05/12/21 20:28	5

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**2.0**	**J**	5.0	1.0	ug/L		05/07/21 09:57	05/07/21 22:09	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/07/21 09:57	05/07/21 22:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Propene (1C)	101		28 - 140	05/07/21 09:57	05/07/21 22:09	1

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**19000**		1000	600	ug/L		05/10/21 09:22	05/10/21 17:51	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Propene (1C)	110		28 - 140	05/10/21 09:22	05/10/21 17:51	200

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0096	ug/L		05/10/21 21:05	05/11/21 09:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane (Surr) (1C)	152	S1+	46 - 136	05/10/21 21:05	05/11/21 09:39	1

Client Sample ID: S-375_20210504

Lab Sample ID: 410-38512-10

Date Collected: 05/04/21 14:30

Matrix: Water

Date Received: 05/05/21 17:10

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*101*		*46 - 136*	*05/10/21 21:05*	*05/11/21 09:39*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			05/07/21 02:17	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**23000**		500	96	ug/L		05/06/21 14:45	05/11/21 18:57	1
Iron	**74000**		200	40	ug/L		05/06/21 14:45	05/11/21 18:57	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.12**	**J**	0.52	0.073	ug/L		05/06/21 16:06	05/10/21 13:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**120000**		8000	8000	ug/L			05/07/21 03:53	1
Total Kjeldahl Nitrogen	ND		1000	500	ug/L		05/11/21 07:20	05/13/21 15:21	1
Total Carbon	**55000**		25000	13000	ug/L			05/09/21 00:35	25
Total Organic Carbon	**9200**	**FL**	1000	500	ug/L			05/09/21 11:45	1
Total Inorganic Carbon	**46000**		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: TB_20210505

Lab Sample ID: 410-38512-11

Date Collected: 05/05/21 00:00

Matrix: Water

Date Received: 05/05/21 17:10

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		1.0	0.20	ug/L			05/11/21 11:03	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/11/21 11:03	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/11/21 11:03	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/11/21 11:03	1
Toluene	ND		1.0	0.20	ug/L			05/11/21 11:03	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/11/21 11:03	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/11/21 11:03	1
Benzene	ND		1.0	0.20	ug/L			05/11/21 11:03	1
Naphthalene	ND		5.0	1.0	ug/L			05/11/21 11:03	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/11/21 11:03	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/11/21 11:03	1
t-Butyl alcohol	ND		50	12	ug/L			05/11/21 11:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*80 - 120*		*05/11/21 11:03*	*1*
4-Bromofluorobenzene (Surr)	*90*		*80 - 120*		*05/11/21 11:03*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*05/11/21 11:03*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*05/11/21 11:03*	*1*

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38512-1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-38512-1	RW-715_20210504	92	108	94	108
410-38512-2	W-32_SL_20210504	94	107	94	103
410-38512-3	S-223_20210504	80	93	101	105
410-38512-4	B-43_20210504	92	106	91	105
410-38512-5	B-132D_20210504	89	93	102	101
410-38512-6	S-374_20210504	87	89	102	102
410-38512-7	C-168_20210504	88	94	101	103
410-38512-8	WP-A_20210504	92	92	105	104
410-38512-9	W-33_20210504	89	93	102	101
410-38512-10	S-375_20210504	86	91	100	101
410-38512-10 - DL	S-375_20210504	88	90	105	103
410-38512-11	TB_20210505	93	90	104	104
LCS 410-124276/4	Lab Control Sample	98	108	95	107
LCS 410-124779/4	Lab Control Sample	89	95	103	105
LCS 410-125307/4	Lab Control Sample	92	93	104	103
LCSD 410-124276/5	Lab Control Sample Dup	101	106	96	104
LCSD 410-124779/5	Lab Control Sample Dup	93	93	103	104
LCSD 410-125307/5	Lab Control Sample Dup	91	95	102	100
MB 410-124276/6	Method Blank	94	105	97	107
MB 410-124779/6	Method Blank	91	90	103	103
MB 410-125307/6	Method Blank	92	89	103	101

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(44-102)	(23-128)	(31-113)
410-38512-1	RW-715_20210504	70	65	63
410-38512-2	W-32_SL_20210504	57	53	63
410-38512-3	S-223_20210504	66	68	77
410-38512-4	B-43_20210504	80	77	75
410-38512-5	B-132D_20210504	82	20 S1-	71
410-38512-6	S-374_20210504	72	43	73
410-38512-6 - DL	S-374_20210504	74	43	82
410-38512-7	C-168_20210504	75	70	69
410-38512-8	WP-A_20210504	73	73	86
410-38512-9	W-33_20210504	69	71	83
410-38512-10	S-375_20210504	74	3 S1-	80
410-38512-10 - DL	S-375_20210504	73	2 S1-	77
LCS 410-124733/2-A	Lab Control Sample	73	74	87
LCS 410-124734/2-A	Lab Control Sample	75	78	97
LCS 410-125104/2-A	Lab Control Sample	43 S1-	48	84
LCSD 410-125104/3-A	Lab Control Sample Dup	71	75	94

Surrogate Summary

Client: Stantec Consulting Corp. Job ID: 410-38512-1
Project/Site: Former PES Annual GWS

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(44-102)	(23-128)	(31-113)
MB 410-124733/1-A	Method Blank	73	73	88
MB 410-124734/1-A	Method Blank	67	69	77
MB 410-125104/1-A	Method Blank	75	71	95

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		Propene1
Lab Sample ID	Client Sample ID	(28-140)
410-38512-1	RW-715_20210504	87
410-38512-1 - DL	RW-715_20210504	95
410-38512-2	W-32_SL_20210504	69
410-38512-2 - DL	W-32_SL_20210504	93
410-38512-3	S-223_20210504	83
410-38512-3 - DL	S-223_20210504	101
410-38512-4	B-43_20210504	120
410-38512-4 - DL	B-43_20210504	100
410-38512-5	B-132D_20210504	86
410-38512-5 - DL	B-132D_20210504	100
410-38512-6	S-374_20210504	98
410-38512-6 - DL	S-374_20210504	100
410-38512-7	C-168_20210504	84
410-38512-7 - DL	C-168_20210504	107
410-38512-8	WP-A_20210504	95
410-38512-8 - DL	WP-A_20210504	95
410-38512-9	W-33_20210504	82
410-38512-9 - DL	W-33_20210504	111
410-38512-10	S-375_20210504	101
410-38512-10 - DL	S-375_20210504	110
LCS 410-123702/2-A	Lab Control Sample	103
LCS 410-124339/2-A	Lab Control Sample	108
LCS 410-124353/2-A	Lab Control Sample	106
LCSD 410-123702/3-A	Lab Control Sample Dup	107
LCSD 410-124339/3-A	Lab Control Sample Dup	109
LCSD 410-124353/3-A	Lab Control Sample Dup	108
MB 410-123702/1-A	Method Blank	104
MB 410-124339/1-A	Method Blank	106
MB 410-124353/1-A	Method Blank	111

Surrogate Legend

Propene = Propene

Surrogate Summary

Client: Stantec Consulting Corp. Job ID: 410-38512-1
Project/Site: Former PES Annual GWS

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	1122TCA1 (46-136)	1122TCA2 (46-136)								
410-38512-1	RW-715_20210504	102	98								
410-38512-2	W-32_SL_20210504	109	108								
410-38512-3	S-223_20210504	154 S1+	91								
410-38512-4	B-43_20210504	102	100								
410-38512-5	B-132D_20210504	92	97								
410-38512-6	S-374_20210504	133	98								
410-38512-7	C-168_20210504	108	114								
410-38512-8	WP-A_20210504	117	112								
410-38512-9	W-33_20210504	95	99								
410-38512-10	S-375_20210504	152 S1+	101								
LCS 410-124637/2-A	Lab Control Sample	88	92								
LCSD 410-124637/3-A	Lab Control Sample Dup	89	95								
MB 410-124637/1-A	Method Blank	96	97								

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-124276/6
Matrix: Water
Analysis Batch: 124276

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/10/21 10:55	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/10/21 10:55	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/10/21 10:55	1
Toluene	ND		1.0	0.20	ug/L			05/10/21 10:55	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/10/21 10:55	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/10/21 10:55	1
Benzene	ND		1.0	0.20	ug/L			05/10/21 10:55	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/10/21 10:55	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/10/21 10:55	1
t-Butyl alcohol	ND		50	12	ug/L			05/10/21 10:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*80 - 120*		*05/10/21 10:55*	*1*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*		*05/10/21 10:55*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*05/10/21 10:55*	*1*
Toluene-d8 (Surr)	*107*		*80 - 120*		*05/10/21 10:55*	*1*

Lab Sample ID: LCS 410-124276/4
Matrix: Water
Analysis Batch: 124276

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylbenzene			20.0	19.1		ug/L		96	80 - 120		
1,2-Dichloroethane			20.0	16.5		ug/L		83	73 - 124		
1,3,5-Trimethylbenzene			20.0	18.0		ug/L		90	75 - 120		
Toluene			20.0	19.9		ug/L		99	80 - 120		
Xylenes, Total			60.0	54.0		ug/L		90	80 - 120		
Methyl tert-butyl ether			20.0	18.2		ug/L		91	69 - 122		
Benzene			20.0	20.0		ug/L		100	80 - 120		
1,2,4-Trimethylbenzene			20.0	18.2		ug/L		91	75 - 120		
Isopropylbenzene			20.0	17.9		ug/L		90	80 - 120		
t-Butyl alcohol			200	181		ug/L		90	60 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 120*
4-Bromofluorobenzene (Surr)	*108*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*80 - 120*
Toluene-d8 (Surr)	*107*		*80 - 120*

Lab Sample ID: LCSD 410-124276/5
Matrix: Water
Analysis Batch: 124276

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene			20.0	20.8		ug/L		104	80 - 120	9	30
1,2-Dichloroethane			20.0	18.3		ug/L		92	73 - 124	10	30
1,3,5-Trimethylbenzene			20.0	19.6		ug/L		98	75 - 120	8	30
Toluene			20.0	21.1		ug/L		105	80 - 120	6	30

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-124276/5
Matrix: Water
Analysis Batch: 124276

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total			60.0	58.7		ug/L		98	80 - 120	8	30
Methyl tert-butyl ether			20.0	19.6		ug/L		98	69 - 122	7	30
Benzene			20.0	21.4		ug/L		107	80 - 120	7	30
1,2,4-Trimethylbenzene			20.0	19.7		ug/L		98	75 - 120	8	30
Isopropylbenzene			20.0	19.1		ug/L		96	80 - 120	7	30
t-Butyl alcohol			200	194		ug/L		97	60 - 130	7	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*80 - 120*
Toluene-d8 (Surr)	*104*		*80 - 120*

Lab Sample ID: MB 410-124779/6
Matrix: Water
Analysis Batch: 124779

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		1.0	0.20	ug/L			05/11/21 10:39	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/11/21 10:39	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/11/21 10:39	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/11/21 10:39	1
Toluene	ND		1.0	0.20	ug/L			05/11/21 10:39	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/11/21 10:39	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/11/21 10:39	1
Benzene	ND		1.0	0.20	ug/L			05/11/21 10:39	1
Naphthalene	ND		5.0	1.0	ug/L			05/11/21 10:39	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/11/21 10:39	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/11/21 10:39	1
t-Butyl alcohol	ND		50	12	ug/L			05/11/21 10:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*80 - 120*		*05/11/21 10:39*	*1*
4-Bromofluorobenzene (Surr)	*90*		*80 - 120*		*05/11/21 10:39*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*05/11/21 10:39*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*05/11/21 10:39*	*1*

Lab Sample ID: LCS 410-124779/4
Matrix: Water
Analysis Batch: 124779

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylene Dibromide			20.0	20.2		ug/L		101	77 - 120
Ethylbenzene			20.0	20.8		ug/L		104	80 - 120
1,2-Dichloroethane			20.0	18.0		ug/L		90	73 - 124
1,3,5-Trimethylbenzene			20.0	19.9		ug/L		99	75 - 120
Toluene			20.0	21.3		ug/L		107	80 - 120
Xylenes, Total			60.0	63.5		ug/L		106	80 - 120

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-124779/4
Matrix: Water
Analysis Batch: 124779

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	20.0	18.2		ug/L		91	69 - 122
Benzene	20.0	21.0		ug/L		105	80 - 120
Naphthalene	20.0	17.1		ug/L		85	53 - 124
1,2,4-Trimethylbenzene	20.0	19.6		ug/L		98	75 - 120
Isopropylbenzene	20.0	21.2		ug/L		106	80 - 120
t-Butyl alcohol	200	209		ug/L		104	60 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*89*		*80 - 120*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*80 - 120*
Toluene-d8 (Surr)	*105*		*80 - 120*

Lab Sample ID: LCSD 410-124779/5
Matrix: Water
Analysis Batch: 124779

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide	20.0	19.8		ug/L		99	77 - 120	2	30
Ethylbenzene	20.0	20.3		ug/L		102	80 - 120	2	30
1,2-Dichloroethane	20.0	18.5		ug/L		92	73 - 124	3	30
1,3,5-Trimethylbenzene	20.0	20.1		ug/L		101	75 - 120	1	30
Toluene	20.0	21.4		ug/L		107	80 - 120	0	30
Xylenes, Total	60.0	62.6		ug/L		104	80 - 120	1	30
Methyl tert-butyl ether	20.0	17.6		ug/L		88	69 - 122	3	30
Benzene	20.0	21.4		ug/L		107	80 - 120	2	30
Naphthalene	20.0	16.6		ug/L		83	53 - 124	3	30
1,2,4-Trimethylbenzene	20.0	19.5		ug/L		98	75 - 120	0	30
Isopropylbenzene	20.0	21.1		ug/L		105	80 - 120	1	30
t-Butyl alcohol	200	208		ug/L		104	60 - 130	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*80 - 120*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*80 - 120*
Toluene-d8 (Surr)	*104*		*80 - 120*

Lab Sample ID: MB 410-125307/6
Matrix: Water
Analysis Batch: 125307

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/12/21 10:25	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/12/21 10:25	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/12/21 10:25	1
Toluene	ND		1.0	0.20	ug/L			05/12/21 10:25	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/12/21 10:25	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/12/21 10:25	1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-125307/6
Matrix: Water
Analysis Batch: 125307

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.20	ug/L			05/12/21 10:25	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/12/21 10:25	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/12/21 10:25	1
t-Butyl alcohol	ND		50	12	ug/L			05/12/21 10:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*		*05/12/21 10:25*	*1*
4-Bromofluorobenzene (Surr)	*89*		*80 - 120*		*05/12/21 10:25*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*05/12/21 10:25*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/12/21 10:25*	*1*

Lab Sample ID: LCS 410-125307/4
Matrix: Water
Analysis Batch: 125307

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylbenzene			20.0	18.1		ug/L		90	80 - 120		
1,2-Dichloroethane			20.0	15.9		ug/L		79	73 - 124		
1,3,5-Trimethylbenzene			20.0	17.3		ug/L		86	75 - 120		
Toluene			20.0	18.3		ug/L		91	80 - 120		
Xylenes, Total			60.0	54.1		ug/L		90	80 - 120		
Methyl tert-butyl ether			20.0	15.4		ug/L		77	69 - 122		
Benzene			20.0	18.0		ug/L		90	80 - 120		
1,2,4-Trimethylbenzene			20.0	17.2		ug/L		86	75 - 120		
Isopropylbenzene			20.0	18.0		ug/L		90	80 - 120		
t-Butyl alcohol			200	179		ug/L		89	60 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*
Dibromofluoromethane (Surr)	*104*		*80 - 120*
Toluene-d8 (Surr)	*103*		*80 - 120*

Lab Sample ID: LCSD 410-125307/5
Matrix: Water
Analysis Batch: 125307

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene			20.0	17.7		ug/L		88	80 - 120	2	30
1,2-Dichloroethane			20.0	15.6		ug/L		78	73 - 124	2	30
1,3,5-Trimethylbenzene			20.0	17.1		ug/L		85	75 - 120	1	30
Toluene			20.0	17.4		ug/L		87	80 - 120	5	30
Xylenes, Total			60.0	53.8		ug/L		90	80 - 120	1	30
Methyl tert-butyl ether			20.0	15.4		ug/L		77	69 - 122	0	30
Benzene			20.0	17.5		ug/L		87	80 - 120	3	30
1,2,4-Trimethylbenzene			20.0	17.1		ug/L		86	75 - 120	1	30
Isopropylbenzene			20.0	17.9		ug/L		89	80 - 120	1	30
t-Butyl alcohol			200	178		ug/L		89	60 - 130	1	30

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-125307/5
Matrix: Water
Analysis Batch: 125307

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	91		80 - 120
4-Bromofluorobenzene (Surr)	95		80 - 120
Dibromofluoromethane (Surr)	102		80 - 120
Toluene-d8 (Surr)	100		80 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-124733/1-A
Matrix: Water
Analysis Batch: 125411

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 124733

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/11/21 10:09	05/12/21 12:11	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/11/21 10:09	05/12/21 12:11	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/11/21 10:09	05/12/21 12:11	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/11/21 10:09	05/12/21 12:11	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/11/21 10:09	05/12/21 12:11	1
Chrysene	ND		0.50	0.10	ug/L		05/11/21 10:09	05/12/21 12:11	1
Fluorene	ND		0.50	0.12	ug/L		05/11/21 10:09	05/12/21 12:11	1
Naphthalene	ND		0.50	0.10	ug/L		05/11/21 10:09	05/12/21 12:11	1
Phenanthrene	ND		0.50	0.11	ug/L		05/11/21 10:09	05/12/21 12:11	1
Pyrene	ND		0.50	0.10	ug/L		05/11/21 10:09	05/12/21 12:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	73		44 - 102	05/11/21 10:09	05/12/21 12:11	1
Nitrobenzene-d5 (Surr)	73		23 - 128	05/11/21 10:09	05/12/21 12:11	1
p-Terphenyl-d14 (Surr)	88		31 - 113	05/11/21 10:09	05/12/21 12:11	1

Lab Sample ID: LCS 410-124733/2-A
Matrix: Water
Analysis Batch: 125411

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 124733

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.0	50.2		ug/L		100	61 - 117
Benzo[a]anthracene	50.0	54.3		ug/L		109	61 - 126
Benzo[a]pyrene	50.0	57.3		ug/L		115	60 - 116
Benzo[b]fluoranthene	50.0	49.1		ug/L		98	61 - 119
Benzo[g,h,i]perylene	50.0	48.9		ug/L		98	54 - 120
Chrysene	50.0	54.9		ug/L		110	65 - 121
Fluorene	50.0	49.7		ug/L		99	56 - 115
Naphthalene	50.0	42.5		ug/L		85	51 - 102
Phenanthrene	50.0	50.3		ug/L		101	65 - 113
Pyrene	50.0	49.7		ug/L		99	65 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	73		44 - 102
Nitrobenzene-d5 (Surr)	74		23 - 128
p-Terphenyl-d14 (Surr)	87		31 - 113

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-124734/1-A
Matrix: Water
Analysis Batch: 125211

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 124734

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/11/21 10:10	05/12/21 03:26	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/11/21 10:10	05/12/21 03:26	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/11/21 10:10	05/12/21 03:26	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/11/21 10:10	05/12/21 03:26	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/11/21 10:10	05/12/21 03:26	1
Chrysene	ND		0.50	0.10	ug/L		05/11/21 10:10	05/12/21 03:26	1
Fluorene	ND		0.50	0.12	ug/L		05/11/21 10:10	05/12/21 03:26	1
Naphthalene	ND		0.50	0.10	ug/L		05/11/21 10:10	05/12/21 03:26	1
Phenanthrene	ND		0.50	0.11	ug/L		05/11/21 10:10	05/12/21 03:26	1
Pyrene	ND		0.50	0.10	ug/L		05/11/21 10:10	05/12/21 03:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*67*		*44 - 102*	*05/11/21 10:10*	*05/12/21 03:26*	*1*
Nitrobenzene-d5 (Surr)	*69*		*23 - 128*	*05/11/21 10:10*	*05/12/21 03:26*	*1*
p-Terphenyl-d14 (Surr)	*77*		*31 - 113*	*05/11/21 10:10*	*05/12/21 03:26*	*1*

Lab Sample ID: LCS 410-124734/2-A
Matrix: Water
Analysis Batch: 125211

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 124734

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.0	49.9		ug/L		100	61 - 117
Benzo[a]anthracene	50.0	52.0		ug/L		104	61 - 126
Benzo[a]pyrene	50.0	56.4		ug/L		113	60 - 116
Benzo[b]fluoranthene	50.0	48.8		ug/L		98	61 - 119
Benzo[g,h,i]perylene	50.0	53.3		ug/L		107	54 - 120
Chrysene	50.0	52.8		ug/L		106	65 - 121
Fluorene	50.0	49.4		ug/L		99	56 - 115
Naphthalene	50.0	40.8		ug/L		82	51 - 102
Phenanthrene	50.0	49.6		ug/L		99	65 - 113
Pyrene	50.0	51.7		ug/L		103	65 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*75*		*44 - 102*
Nitrobenzene-d5 (Surr)	*78*		*23 - 128*
p-Terphenyl-d14 (Surr)	*97*		*31 - 113*

Lab Sample ID: MB 410-125104/1-A
Matrix: Water
Analysis Batch: 125897

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 125104

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/11/21 19:00	05/13/21 12:24	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/11/21 19:00	05/13/21 12:24	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/11/21 19:00	05/13/21 12:24	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/11/21 19:00	05/13/21 12:24	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/11/21 19:00	05/13/21 12:24	1
Chrysene	ND		0.50	0.10	ug/L		05/11/21 19:00	05/13/21 12:24	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-125104/1-A
Matrix: Water
Analysis Batch: 125897

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 125104

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	ND		0.50	0.12	ug/L		05/11/21 19:00	05/13/21 12:24	1
Naphthalene	ND		0.50	0.10	ug/L		05/11/21 19:00	05/13/21 12:24	1
Phenanthrene	ND		0.50	0.11	ug/L		05/11/21 19:00	05/13/21 12:24	1
Pyrene	ND		0.50	0.10	ug/L		05/11/21 19:00	05/13/21 12:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*75*		*44 - 102*	*05/11/21 19:00*	*05/13/21 12:24*	*1*
Nitrobenzene-d5 (Surr)	*71*		*23 - 128*	*05/11/21 19:00*	*05/13/21 12:24*	*1*
p-Terphenyl-d14 (Surr)	*95*		*31 - 113*	*05/11/21 19:00*	*05/13/21 12:24*	*1*

Lab Sample ID: LCS 410-125104/2-A
Matrix: Water
Analysis Batch: 125897

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 125104

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.0	33.4		ug/L		67	61 - 117
Benzo[a]anthracene	50.0	41.1		ug/L		82	61 - 126
Benzo[a]pyrene	50.0	41.5		ug/L		83	60 - 116
Benzo[b]fluoranthene	50.0	38.5		ug/L		77	61 - 119
Benzo[g,h,i]perylene	50.0	37.9		ug/L		76	54 - 120
Chrysene	50.0	42.0		ug/L		84	65 - 121
Fluorene	50.0	28.1		ug/L		56	56 - 115
Naphthalene	50.0	20.2	*-	ug/L		40	51 - 102
Phenanthrene	50.0	32.5		ug/L		65	65 - 113
Pyrene	50.0	34.8		ug/L		70	65 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*43*	*S1-*	*44 - 102*
Nitrobenzene-d5 (Surr)	*48*		*23 - 128*
p-Terphenyl-d14 (Surr)	*84*		*31 - 113*

Lab Sample ID: LCSD 410-125104/3-A
Matrix: Water
Analysis Batch: 125897

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 125104

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Anthracene	50.0	48.8	*1	ug/L		98	61 - 117	37	30
Benzo[a]anthracene	50.0	49.8		ug/L		100	61 - 126	19	30
Benzo[a]pyrene	50.0	49.4		ug/L		99	60 - 116	17	30
Benzo[b]fluoranthene	50.0	49.8		ug/L		100	61 - 119	26	30
Benzo[g,h,i]perylene	50.0	43.7		ug/L		87	54 - 120	14	30
Chrysene	50.0	50.0		ug/L		100	65 - 121	17	30
Fluorene	50.0	44.3	*1	ug/L		89	56 - 115	45	30
Naphthalene	50.0	36.8	*1	ug/L		74	51 - 102	58	30
Phenanthrene	50.0	47.2	*1	ug/L		94	65 - 113	37	30
Pyrene	50.0	46.0		ug/L		92	65 - 115	28	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-125104/3-A
Matrix: Water
Analysis Batch: 125897

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 125104

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*71*		*44 - 102*
Nitrobenzene-d5 (Surr)	*75*		*23 - 128*
p-Terphenyl-d14 (Surr)	*94*		*31 - 113*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-123702/1-A
Matrix: Water
Analysis Batch: 123629

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 123702

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/07/21 09:57	05/07/21 17:33	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/07/21 09:57	05/07/21 17:33	1
Methane (1C)	ND		5.0	3.0	ug/L		05/07/21 09:57	05/07/21 17:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*104*		*28 - 140*	*05/07/21 09:57*	*05/07/21 17:33*	*1*

Lab Sample ID: LCS 410-123702/2-A
Matrix: Water
Analysis Batch: 123629

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 123702

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	59.0		ug/L		99	85 - 115		
Ethene (1C)			60.4	59.4		ug/L		98	83 - 115		
Methane (1C)			59.4	60.1		ug/L		101	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*103*		*28 - 140*

Lab Sample ID: LCSD 410-123702/3-A
Matrix: Water
Analysis Batch: 123629

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 123702

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	61.5		ug/L		104	85 - 115	4	20
Ethene (1C)			60.4	61.8		ug/L		102	83 - 115	4	20
Methane (1C)			59.4	62.1		ug/L		105	85 - 115	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*107*		*28 - 140*

Lab Sample ID: MB 410-124339/1-A
Matrix: Water
Analysis Batch: 124340

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 124339

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/10/21 08:59	05/10/21 09:15	1

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: MB 410-124339/1-A
Matrix: Water
Analysis Batch: 124340

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 124339

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethene (1C)	ND		5.0	1.0	ug/L		05/10/21 08:59	05/10/21 09:15	1
Methane (1C)	ND		5.0	3.0	ug/L		05/10/21 08:59	05/10/21 09:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*106*		*28 - 140*	*05/10/21 08:59*	*05/10/21 09:15*	*1*

Lab Sample ID: LCS 410-124339/2-A
Matrix: Water
Analysis Batch: 124340

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 124339

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	60.5		ug/L		102	85 - 115		
Ethene (1C)			60.4	61.0		ug/L		101	83 - 115		
Methane (1C)			59.4	60.7		ug/L		102	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*108*		*28 - 140*

Lab Sample ID: LCSD 410-124339/3-A
Matrix: Water
Analysis Batch: 124340

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 124339

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	60.6		ug/L		102	85 - 115	0	20
Ethene (1C)			60.4	61.2		ug/L		101	83 - 115	0	20
Methane (1C)			59.4	60.9		ug/L		103	85 - 115	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*109*		*28 - 140*

Lab Sample ID: MB 410-124353/1-A
Matrix: Water
Analysis Batch: 124340

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 124353

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/10/21 09:22	05/10/21 16:02	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/10/21 09:22	05/10/21 16:02	1
Methane (1C)	ND		5.0	3.0	ug/L		05/10/21 09:22	05/10/21 16:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*111*		*28 - 140*	*05/10/21 09:22*	*05/10/21 16:02*	*1*

Lab Sample ID: LCS 410-124353/2-A
Matrix: Water
Analysis Batch: 124340

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 124353

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	60.7		ug/L		102	85 - 115		

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCS 410-124353/2-A
Matrix: Water
Analysis Batch: 124340

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 124353

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethene (1C)			60.4	61.1		ug/L		101	83 - 115		
Methane (1C)			59.4	61.2		ug/L		103	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*106*		*28 - 140*

Lab Sample ID: LCSD 410-124353/3-A
Matrix: Water
Analysis Batch: 124340

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 124353

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	60.5		ug/L		102	85 - 115	0	20
Ethene (1C)			60.4	60.9		ug/L		101	83 - 115	0	20
Methane (1C)			59.4	61.1		ug/L		103	85 - 115	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*108*		*28 - 140*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-124637/1-A
Matrix: Water
Analysis Batch: 124703

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 124637

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		05/10/21 21:05	05/11/21 05:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*96*		*46 - 136*	*05/10/21 21:05*	*05/11/21 05:59*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*97*		*46 - 136*	*05/10/21 21:05*	*05/11/21 05:59*	*1*

Lab Sample ID: LCS 410-124637/2-A
Matrix: Water
Analysis Batch: 124703

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 124637

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.165		ug/L		129	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*88*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*92*		*46 - 136*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: LCSD 410-124637/3-A
Matrix: Water
Analysis Batch: 124703

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 124637

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.158		ug/L		123	60 - 140	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*89*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*95*		*46 - 136*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 410-123321/4
Matrix: Water
Analysis Batch: 123321

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1000	300	ug/L			05/06/21 16:27	1

Lab Sample ID: LCS 410-123321/3
Matrix: Water
Analysis Batch: 123321

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			7500	7290		ug/L		97	90 - 110		

Lab Sample ID: MB 410-123412/4
Matrix: Water
Analysis Batch: 123412

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1000	300	ug/L			05/06/21 19:03	1

Lab Sample ID: LCS 410-123412/3
Matrix: Water
Analysis Batch: 123412

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			7500	7710		ug/L		103	90 - 110		

Lab Sample ID: 410-38512-8 MS
Matrix: Water
Analysis Batch: 123412

Client Sample ID: WP-A_20210504
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	3600	J	25000	29300		ug/L		103	90 - 110		

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 410-38512-8 DU
Matrix: Water
Analysis Batch: 123412

Client Sample ID: WP-A_20210504
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfate	3600	J		3610	J	ug/L				0.3	15

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-123339/1-A
Matrix: Water
Analysis Batch: 125172

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 123339

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		500	96	ug/L		05/06/21 14:45	05/11/21 18:01	1
Iron	ND		200	40	ug/L		05/06/21 14:45	05/11/21 18:01	1

Lab Sample ID: LCS 410-123339/2-A
Matrix: Water
Analysis Batch: 125172

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 123339

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Calcium			400	415	J	ug/L		104	80 - 120		
Iron			400	418		ug/L		104	80 - 120		

Lab Sample ID: 410-38512-8 MS
Matrix: Water
Analysis Batch: 125172

Client Sample ID: WP-A_20210504
Prep Type: Total Recoverable
Prep Batch: 123339

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Calcium	36000		400	37100	4	ug/L		282	75 - 125		
Iron	850		400	1280		ug/L		109	75 - 125		

Lab Sample ID: 410-38512-8 MSD
Matrix: Water
Analysis Batch: 125172

Client Sample ID: WP-A_20210504
Prep Type: Total Recoverable
Prep Batch: 123339

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	36000		400	37000	4	ug/L		265	75 - 125	0	20
Iron	850		400	1300		ug/L		113	75 - 125	1	20

Lab Sample ID: 410-38512-8 DU
Matrix: Water
Analysis Batch: 125172

Client Sample ID: WP-A_20210504
Prep Type: Total Recoverable
Prep Batch: 123339

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Calcium	36000			35800		ug/L				0.4	20
Iron	850			830		ug/L				2	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 410-123383/1-A
Matrix: Water
Analysis Batch: 124494

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 123383

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/06/21 16:06	05/10/21 13:07	1

Lab Sample ID: LCS 410-123383/2-A
Matrix: Water
Analysis Batch: 124494

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 123383

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	30.0	31.3		ug/L		104	90 - 115

Lab Sample ID: 410-38512-4 MS
Matrix: Water
Analysis Batch: 124494

Client Sample ID: B-43_20210504
Prep Type: Dissolved
Prep Batch: 123383

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	ND		30.0	30.6		ug/L		102	75 - 125

Lab Sample ID: 410-38512-4 MSD
Matrix: Water
Analysis Batch: 124494

Client Sample ID: B-43_20210504
Prep Type: Dissolved
Prep Batch: 123383

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	ND		30.0	30.4		ug/L		101	75 - 125	1	20

Lab Sample ID: 410-38512-4 DU
Matrix: Water
Analysis Batch: 124494

Client Sample ID: B-43_20210504
Prep Type: Dissolved
Prep Batch: 123383

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	ND		ND		ug/L		NC	20

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 410-123828/33
Matrix: Water
Analysis Batch: 123828

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8000	8000	ug/L			05/06/21 20:42	1

Lab Sample ID: MB 410-123828/43
Matrix: Water
Analysis Batch: 123828

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8000	8000	ug/L			05/06/21 21:46	1

Method: 2320B-2011 - Alkalinity, Total (Continued)

Lab Sample ID: MB 410-123828/74
Matrix: Water
Analysis Batch: 123828

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8000	8000	ug/L			05/07/21 00:58	1

Lab Sample ID: LCS 410-123828/34
Matrix: Water
Analysis Batch: 123828

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	189000	183000		ug/L		97	82 - 106

Lab Sample ID: LCS 410-123828/44
Matrix: Water
Analysis Batch: 123828

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	189000	185000		ug/L		98	82 - 106

Lab Sample ID: LCS 410-123828/75
Matrix: Water
Analysis Batch: 123828

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	189000	184000		ug/L		98	82 - 106

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 410-124750/2-A
Matrix: Water
Analysis Batch: 126159

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 124750

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		1000	500	ug/L		05/11/21 07:20	05/13/21 14:55	1

Lab Sample ID: LCS 410-124750/1-A
Matrix: Water
Analysis Batch: 126159

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 124750

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	4000	3900		ug/L		98	90 - 110

Method: 5310 B-2011 - Carbon, Total and Total Inorganic

Lab Sample ID: MB 410-124415/35
Matrix: Water
Analysis Batch: 124415

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Carbon	ND		1000	500	ug/L			05/09/21 00:02	1

Method: 5310 B-2011 - Carbon, Total and Total Inorganic (Continued)

Lab Sample ID: MB 410-124415/5
Matrix: Water
Analysis Batch: 124415

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Carbon	ND		1000	500	ug/L			05/08/21 18:40	1

Lab Sample ID: LCS 410-124415/34
Matrix: Water
Analysis Batch: 124415

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Carbon	25000	26300		ug/L		105	91 - 115

Lab Sample ID: LCS 410-124415/4
Matrix: Water
Analysis Batch: 124415

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Carbon	25000	25100		ug/L		100	91 - 115

Lab Sample ID: 410-38512-10 MS
Matrix: Water
Analysis Batch: 124415

Client Sample ID: S-375_20210504
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Carbon	55000		250000	285000		ug/L		92	91 - 115

Lab Sample ID: 410-38512-10 DU
Matrix: Water
Analysis Batch: 124415

Client Sample ID: S-375_20210504
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Carbon	55000		60700		ug/L		10	20

Method: 5310C-2011 - Total Organic Carbon/Persulfate - Ultrav

Lab Sample ID: MB 410-124439/35
Matrix: Water
Analysis Batch: 124439

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	500	ug/L			05/09/21 02:29	1

Lab Sample ID: MB 410-124439/68
Matrix: Water
Analysis Batch: 124439

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	500	ug/L			05/09/21 11:28	1

Method: 5310C-2011 - Total Organic Carbon/Persulfate - Ultrav (Continued)

Lab Sample ID: LCS 410-124439/34
Matrix: Water
Analysis Batch: 124439

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon			25000	24800		ug/L		99	91 - 113		

Lab Sample ID: LCS 410-124439/67
Matrix: Water
Analysis Batch: 124439

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon			25000	24800		ug/L		99	91 - 113		

Lab Sample ID: 410-38512-1 MS
Matrix: Water
Analysis Batch: 124439

Client Sample ID: RW-715_20210504
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon	1900		10000	11700		ug/L		98	91 - 113		

Lab Sample ID: 410-38512-10 MS
Matrix: Water
Analysis Batch: 124439

Client Sample ID: S-375_20210504
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon	9200	FL	10000	18100	FL	ug/L		88	91 - 113		

Lab Sample ID: 410-38512-1 DU
Matrix: Water
Analysis Batch: 124439

Client Sample ID: RW-715_20210504
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Organic Carbon	1900			1890		ug/L				1	3

Lab Sample ID: 410-38512-10 DU
Matrix: Water
Analysis Batch: 124439

Client Sample ID: S-375_20210504
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Organic Carbon	9200	FL		9630	F3	ug/L				4	3

GC/MS VOA

Analysis Batch: 124276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-1	RW-715_20210504	Total/NA	Water	8260C/UST	
410-38512-2	W-32_SL_20210504	Total/NA	Water	8260C/UST	
410-38512-4	B-43_20210504	Total/NA	Water	8260C/UST	
MB 410-124276/6	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-124276/4	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-124276/5	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

Analysis Batch: 124779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-3	S-223_20210504	Total/NA	Water	8260C/UST	
410-38512-5	B-132D_20210504	Total/NA	Water	8260C/UST	
410-38512-7	C-168_20210504	Total/NA	Water	8260C/UST	
410-38512-8	WP-A_20210504	Total/NA	Water	8260C/UST	
410-38512-9	W-33_20210504	Total/NA	Water	8260C/UST	
410-38512-10	S-375_20210504	Total/NA	Water	8260C/UST	
410-38512-10 - DL	S-375_20210504	Total/NA	Water	8260C/UST	
410-38512-11	TB_20210505	Total/NA	Water	8260C/UST	
MB 410-124779/6	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-124779/4	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-124779/5	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

Analysis Batch: 125307

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-6	S-374_20210504	Total/NA	Water	8260C/UST	
MB 410-125307/6	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-125307/4	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-125307/5	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

GC/MS Semi VOA

Prep Batch: 124733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-1	RW-715_20210504	Total/NA	Water	3510C	
410-38512-2	W-32_SL_20210504	Total/NA	Water	3510C	
410-38512-3	S-223_20210504	Total/NA	Water	3510C	
MB 410-124733/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-124733/2-A	Lab Control Sample	Total/NA	Water	3510C	

Prep Batch: 124734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-8	WP-A_20210504	Total/NA	Water	3510C	
410-38512-9	W-33_20210504	Total/NA	Water	3510C	
410-38512-10	S-375_20210504	Total/NA	Water	3510C	
410-38512-10 - DL	S-375_20210504	Total/NA	Water	3510C	
MB 410-124734/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-124734/2-A	Lab Control Sample	Total/NA	Water	3510C	

Prep Batch: 125104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-4	B-43_20210504	Total/NA	Water	3510C	
410-38512-5	B-132D_20210504	Total/NA	Water	3510C	

GC/MS Semi VOA (Continued)

Prep Batch: 125104 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-6 - DL	S-374_20210504	Total/NA	Water	3510C	
410-38512-6	S-374_20210504	Total/NA	Water	3510C	
410-38512-7	C-168_20210504	Total/NA	Water	3510C	
MB 410-125104/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-125104/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-125104/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 125211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-8	WP-A_20210504	Total/NA	Water	8270D	124734
410-38512-9	W-33_20210504	Total/NA	Water	8270D	124734
410-38512-10	S-375_20210504	Total/NA	Water	8270D	124734
MB 410-124734/1-A	Method Blank	Total/NA	Water	8270D	124734
LCS 410-124734/2-A	Lab Control Sample	Total/NA	Water	8270D	124734

Analysis Batch: 125411

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-124733/1-A	Method Blank	Total/NA	Water	8270D	124733
LCS 410-124733/2-A	Lab Control Sample	Total/NA	Water	8270D	124733

Analysis Batch: 125662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-10 - DL	S-375_20210504	Total/NA	Water	8270D	124734

Analysis Batch: 125758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-1	RW-715_20210504	Total/NA	Water	8270D	124733
410-38512-2	W-32_SL_20210504	Total/NA	Water	8270D	124733
410-38512-3	S-223_20210504	Total/NA	Water	8270D	124733

Analysis Batch: 125897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-4	B-43_20210504	Total/NA	Water	8270D	125104
410-38512-5	B-132D_20210504	Total/NA	Water	8270D	125104
MB 410-125104/1-A	Method Blank	Total/NA	Water	8270D	125104
LCS 410-125104/2-A	Lab Control Sample	Total/NA	Water	8270D	125104
LCSD 410-125104/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	125104

Analysis Batch: 126273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-6	S-374_20210504	Total/NA	Water	8270D	125104
410-38512-7	C-168_20210504	Total/NA	Water	8270D	125104

Analysis Batch: 126500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-6 - DL	S-374_20210504	Total/NA	Water	8270D	125104

GC VOA

Analysis Batch: 123629

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-1	RW-715_20210504	Total/NA	Water	RSK-175	123702
410-38512-2	W-32_SL_20210504	Total/NA	Water	RSK-175	123702
410-38512-3	S-223_20210504	Total/NA	Water	RSK-175	123702
410-38512-4	B-43_20210504	Total/NA	Water	RSK-175	123702
410-38512-5	B-132D_20210504	Total/NA	Water	RSK-175	123702
410-38512-6	S-374_20210504	Total/NA	Water	RSK-175	123702
410-38512-7	C-168_20210504	Total/NA	Water	RSK-175	123702
410-38512-8	WP-A_20210504	Total/NA	Water	RSK-175	123702
410-38512-9	W-33_20210504	Total/NA	Water	RSK-175	123702
410-38512-10	S-375_20210504	Total/NA	Water	RSK-175	123702
MB 410-123702/1-A	Method Blank	Total/NA	Water	RSK-175	123702
LCS 410-123702/2-A	Lab Control Sample	Total/NA	Water	RSK-175	123702
LCSD 410-123702/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	123702

Prep Batch: 123702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-1	RW-715_20210504	Total/NA	Water	RSK-175	
410-38512-2	W-32_SL_20210504	Total/NA	Water	RSK-175	
410-38512-3	S-223_20210504	Total/NA	Water	RSK-175	
410-38512-4	B-43_20210504	Total/NA	Water	RSK-175	
410-38512-5	B-132D_20210504	Total/NA	Water	RSK-175	
410-38512-6	S-374_20210504	Total/NA	Water	RSK-175	
410-38512-7	C-168_20210504	Total/NA	Water	RSK-175	
410-38512-8	WP-A_20210504	Total/NA	Water	RSK-175	
410-38512-9	W-33_20210504	Total/NA	Water	RSK-175	
410-38512-10	S-375_20210504	Total/NA	Water	RSK-175	
MB 410-123702/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-123702/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-123702/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Prep Batch: 124339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-1 - DL	RW-715_20210504	Total/NA	Water	RSK-175	
410-38512-2 - DL	W-32_SL_20210504	Total/NA	Water	RSK-175	
410-38512-3 - DL	S-223_20210504	Total/NA	Water	RSK-175	
410-38512-4 - DL	B-43_20210504	Total/NA	Water	RSK-175	
410-38512-5 - DL	B-132D_20210504	Total/NA	Water	RSK-175	
410-38512-6 - DL	S-374_20210504	Total/NA	Water	RSK-175	
MB 410-124339/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-124339/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-124339/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 124340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-1 - DL	RW-715_20210504	Total/NA	Water	RSK-175	124339
410-38512-2 - DL	W-32_SL_20210504	Total/NA	Water	RSK-175	124339
410-38512-3 - DL	S-223_20210504	Total/NA	Water	RSK-175	124339
410-38512-4 - DL	B-43_20210504	Total/NA	Water	RSK-175	124339
410-38512-5 - DL	B-132D_20210504	Total/NA	Water	RSK-175	124339
410-38512-6 - DL	S-374_20210504	Total/NA	Water	RSK-175	124339
410-38512-7 - DL	C-168_20210504	Total/NA	Water	RSK-175	124353

GC VOA (Continued)

Analysis Batch: 124340 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-8 - DL	WP-A_20210504	Total/NA	Water	RSK-175	124353
410-38512-9 - DL	W-33_20210504	Total/NA	Water	RSK-175	124353
410-38512-10 - DL	S-375_20210504	Total/NA	Water	RSK-175	124353
MB 410-124339/1-A	Method Blank	Total/NA	Water	RSK-175	124339
MB 410-124353/1-A	Method Blank	Total/NA	Water	RSK-175	124353
LCS 410-124339/2-A	Lab Control Sample	Total/NA	Water	RSK-175	124339
LCS 410-124353/2-A	Lab Control Sample	Total/NA	Water	RSK-175	124353
LCSD 410-124339/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	124339
LCSD 410-124353/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	124353

Prep Batch: 124353

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-7 - DL	C-168_20210504	Total/NA	Water	RSK-175	
410-38512-8 - DL	WP-A_20210504	Total/NA	Water	RSK-175	
410-38512-9 - DL	W-33_20210504	Total/NA	Water	RSK-175	
410-38512-10 - DL	S-375_20210504	Total/NA	Water	RSK-175	
MB 410-124353/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-124353/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-124353/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

GC Semi VOA

Prep Batch: 124637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-1	RW-715_20210504	Total/NA	Water	8011	
410-38512-2	W-32_SL_20210504	Total/NA	Water	8011	
410-38512-3	S-223_20210504	Total/NA	Water	8011	
410-38512-4	B-43_20210504	Total/NA	Water	8011	
410-38512-5	B-132D_20210504	Total/NA	Water	8011	
410-38512-6	S-374_20210504	Total/NA	Water	8011	
410-38512-7	C-168_20210504	Total/NA	Water	8011	
410-38512-8	WP-A_20210504	Total/NA	Water	8011	
410-38512-9	W-33_20210504	Total/NA	Water	8011	
410-38512-10	S-375_20210504	Total/NA	Water	8011	
MB 410-124637/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-124637/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-124637/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 124703

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-1	RW-715_20210504	Total/NA	Water	8011	124637
410-38512-2	W-32_SL_20210504	Total/NA	Water	8011	124637
410-38512-3	S-223_20210504	Total/NA	Water	8011	124637
410-38512-4	B-43_20210504	Total/NA	Water	8011	124637
410-38512-5	B-132D_20210504	Total/NA	Water	8011	124637
410-38512-6	S-374_20210504	Total/NA	Water	8011	124637
410-38512-7	C-168_20210504	Total/NA	Water	8011	124637
410-38512-8	WP-A_20210504	Total/NA	Water	8011	124637
410-38512-9	W-33_20210504	Total/NA	Water	8011	124637
410-38512-10	S-375_20210504	Total/NA	Water	8011	124637
MB 410-124637/1-A	Method Blank	Total/NA	Water	8011	124637

GC Semi VOA (Continued)

Analysis Batch: 124703 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-124637/2-A	Lab Control Sample	Total/NA	Water	8011	124637
LCSD 410-124637/3-A	Lab Control Sample Dup	Total/NA	Water	8011	124637

HPLC/IC

Analysis Batch: 123321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-1	RW-715_20210504	Total/NA	Water	EPA 300.0 R2.1	
410-38512-2	W-32_SL_20210504	Total/NA	Water	EPA 300.0 R2.1	
410-38512-3	S-223_20210504	Total/NA	Water	EPA 300.0 R2.1	
410-38512-4	B-43_20210504	Total/NA	Water	EPA 300.0 R2.1	
410-38512-5	B-132D_20210504	Total/NA	Water	EPA 300.0 R2.1	
MB 410-123321/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-123321/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 123412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-6	S-374_20210504	Total/NA	Water	EPA 300.0 R2.1	
410-38512-7	C-168_20210504	Total/NA	Water	EPA 300.0 R2.1	
410-38512-8	WP-A_20210504	Total/NA	Water	EPA 300.0 R2.1	
410-38512-9	W-33_20210504	Total/NA	Water	EPA 300.0 R2.1	
410-38512-10	S-375_20210504	Total/NA	Water	EPA 300.0 R2.1	
MB 410-123412/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-123412/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
410-38512-8 MS	WP-A_20210504	Total/NA	Water	EPA 300.0 R2.1	
410-38512-8 DU	WP-A_20210504	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 123339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-1	RW-715_20210504	Total Recoverable	Water	3005A	
410-38512-2	W-32_SL_20210504	Total Recoverable	Water	3005A	
410-38512-3	S-223_20210504	Total Recoverable	Water	3005A	
410-38512-4	B-43_20210504	Total Recoverable	Water	3005A	
410-38512-5	B-132D_20210504	Total Recoverable	Water	3005A	
410-38512-6	S-374_20210504	Total Recoverable	Water	3005A	
410-38512-7	C-168_20210504	Total Recoverable	Water	3005A	
410-38512-8	WP-A_20210504	Total Recoverable	Water	3005A	
410-38512-9	W-33_20210504	Total Recoverable	Water	3005A	
410-38512-10	S-375_20210504	Total Recoverable	Water	3005A	
MB 410-123339/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-123339/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
410-38512-8 MS	WP-A_20210504	Total Recoverable	Water	3005A	
410-38512-8 MSD	WP-A_20210504	Total Recoverable	Water	3005A	
410-38512-8 DU	WP-A_20210504	Total Recoverable	Water	3005A	

Prep Batch: 123383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-1	RW-715_20210504	Dissolved	Water	Non-Digest Prep	
410-38512-2	W-32_SL_20210504	Dissolved	Water	Non-Digest Prep	
410-38512-3	S-223_20210504	Dissolved	Water	Non-Digest Prep	

Metals (Continued)

Prep Batch: 123383 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-4	B-43_20210504	Dissolved	Water	Non-Digest Prep	
410-38512-5	B-132D_20210504	Dissolved	Water	Non-Digest Prep	
410-38512-6	S-374_20210504	Dissolved	Water	Non-Digest Prep	
410-38512-7	C-168_20210504	Dissolved	Water	Non-Digest Prep	
410-38512-8	WP-A_20210504	Dissolved	Water	Non-Digest Prep	
410-38512-9	W-33_20210504	Dissolved	Water	Non-Digest Prep	
410-38512-10	S-375_20210504	Dissolved	Water	Non-Digest Prep	
MB 410-123383/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-123383/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	
410-38512-4 MS	B-43_20210504	Dissolved	Water	Non-Digest Prep	
410-38512-4 MSD	B-43_20210504	Dissolved	Water	Non-Digest Prep	
410-38512-4 DU	B-43_20210504	Dissolved	Water	Non-Digest Prep	

Analysis Batch: 124494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-1	RW-715_20210504	Dissolved	Water	6020A	123383
410-38512-2	W-32_SL_20210504	Dissolved	Water	6020A	123383
410-38512-3	S-223_20210504	Dissolved	Water	6020A	123383
410-38512-4	B-43_20210504	Dissolved	Water	6020A	123383
410-38512-5	B-132D_20210504	Dissolved	Water	6020A	123383
410-38512-6	S-374_20210504	Dissolved	Water	6020A	123383
410-38512-7	C-168_20210504	Dissolved	Water	6020A	123383
410-38512-8	WP-A_20210504	Dissolved	Water	6020A	123383
410-38512-9	W-33_20210504	Dissolved	Water	6020A	123383
410-38512-10	S-375_20210504	Dissolved	Water	6020A	123383
MB 410-123383/1-A	Method Blank	Total/NA	Water	6020A	123383
LCS 410-123383/2-A	Lab Control Sample	Total/NA	Water	6020A	123383
410-38512-4 MS	B-43_20210504	Dissolved	Water	6020A	123383
410-38512-4 MSD	B-43_20210504	Dissolved	Water	6020A	123383
410-38512-4 DU	B-43_20210504	Dissolved	Water	6020A	123383

Analysis Batch: 125172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-1	RW-715_20210504	Total Recoverable	Water	6010C	123339
410-38512-2	W-32_SL_20210504	Total Recoverable	Water	6010C	123339
410-38512-3	S-223_20210504	Total Recoverable	Water	6010C	123339
410-38512-4	B-43_20210504	Total Recoverable	Water	6010C	123339
410-38512-5	B-132D_20210504	Total Recoverable	Water	6010C	123339
410-38512-6	S-374_20210504	Total Recoverable	Water	6010C	123339
410-38512-7	C-168_20210504	Total Recoverable	Water	6010C	123339
410-38512-8	WP-A_20210504	Total Recoverable	Water	6010C	123339
410-38512-9	W-33_20210504	Total Recoverable	Water	6010C	123339
410-38512-10	S-375_20210504	Total Recoverable	Water	6010C	123339
MB 410-123339/1-A	Method Blank	Total Recoverable	Water	6010C	123339
LCS 410-123339/2-A	Lab Control Sample	Total Recoverable	Water	6010C	123339
410-38512-8 MS	WP-A_20210504	Total Recoverable	Water	6010C	123339
410-38512-8 MSD	WP-A_20210504	Total Recoverable	Water	6010C	123339
410-38512-8 DU	WP-A_20210504	Total Recoverable	Water	6010C	123339

General Chemistry

Analysis Batch: 123828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-1	RW-715_20210504	Total/NA	Water	2320B-2011	
410-38512-2	W-32_SL_20210504	Total/NA	Water	2320B-2011	
410-38512-3	S-223_20210504	Total/NA	Water	2320B-2011	
410-38512-4	B-43_20210504	Total/NA	Water	2320B-2011	
410-38512-5	B-132D_20210504	Total/NA	Water	2320B-2011	
410-38512-6	S-374_20210504	Total/NA	Water	2320B-2011	
410-38512-7	C-168_20210504	Total/NA	Water	2320B-2011	
410-38512-8	WP-A_20210504	Total/NA	Water	2320B-2011	
410-38512-9	W-33_20210504	Total/NA	Water	2320B-2011	
410-38512-10	S-375_20210504	Total/NA	Water	2320B-2011	
MB 410-123828/33	Method Blank	Total/NA	Water	2320B-2011	
MB 410-123828/43	Method Blank	Total/NA	Water	2320B-2011	
MB 410-123828/74	Method Blank	Total/NA	Water	2320B-2011	
LCS 410-123828/34	Lab Control Sample	Total/NA	Water	2320B-2011	
LCS 410-123828/44	Lab Control Sample	Total/NA	Water	2320B-2011	
LCS 410-123828/75	Lab Control Sample	Total/NA	Water	2320B-2011	

Analysis Batch: 124415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-1	RW-715_20210504	Total/NA	Water	5310 B-2011	
410-38512-2	W-32_SL_20210504	Total/NA	Water	5310 B-2011	
410-38512-3	S-223_20210504	Total/NA	Water	5310 B-2011	
410-38512-4	B-43_20210504	Total/NA	Water	5310 B-2011	
410-38512-5	B-132D_20210504	Total/NA	Water	5310 B-2011	
410-38512-6	S-374_20210504	Total/NA	Water	5310 B-2011	
410-38512-7	C-168_20210504	Total/NA	Water	5310 B-2011	
410-38512-8	WP-A_20210504	Total/NA	Water	5310 B-2011	
410-38512-9	W-33_20210504	Total/NA	Water	5310 B-2011	
410-38512-10	S-375_20210504	Total/NA	Water	5310 B-2011	
MB 410-124415/35	Method Blank	Total/NA	Water	5310 B-2011	
MB 410-124415/5	Method Blank	Total/NA	Water	5310 B-2011	
LCS 410-124415/34	Lab Control Sample	Total/NA	Water	5310 B-2011	
LCS 410-124415/4	Lab Control Sample	Total/NA	Water	5310 B-2011	
410-38512-10 MS	S-375_20210504	Total/NA	Water	5310 B-2011	
410-38512-10 DU	S-375_20210504	Total/NA	Water	5310 B-2011	

Analysis Batch: 124439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-1	RW-715_20210504	Total/NA	Water	5310C-2011	
410-38512-2	W-32_SL_20210504	Total/NA	Water	5310C-2011	
410-38512-3	S-223_20210504	Total/NA	Water	5310C-2011	
410-38512-4	B-43_20210504	Total/NA	Water	5310C-2011	
410-38512-5	B-132D_20210504	Total/NA	Water	5310C-2011	
410-38512-6	S-374_20210504	Total/NA	Water	5310C-2011	
410-38512-7	C-168_20210504	Total/NA	Water	5310C-2011	
410-38512-8	WP-A_20210504	Total/NA	Water	5310C-2011	
410-38512-9	W-33_20210504	Total/NA	Water	5310C-2011	
410-38512-10	S-375_20210504	Total/NA	Water	5310C-2011	
MB 410-124439/35	Method Blank	Total/NA	Water	5310C-2011	
MB 410-124439/68	Method Blank	Total/NA	Water	5310C-2011	
LCS 410-124439/34	Lab Control Sample	Total/NA	Water	5310C-2011	

General Chemistry (Continued)

Analysis Batch: 124439 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-124439/67	Lab Control Sample	Total/NA	Water	5310C-2011	
410-38512-1 MS	RW-715_20210504	Total/NA	Water	5310C-2011	
410-38512-10 MS	S-375_20210504	Total/NA	Water	5310C-2011	
410-38512-1 DU	RW-715_20210504	Total/NA	Water	5310C-2011	
410-38512-10 DU	S-375_20210504	Total/NA	Water	5310C-2011	

Analysis Batch: 124510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-1	RW-715_20210504	Total/NA	Water	SM5310C	
410-38512-2	W-32_SL_20210504	Total/NA	Water	SM5310C	
410-38512-3	S-223_20210504	Total/NA	Water	SM5310C	
410-38512-4	B-43_20210504	Total/NA	Water	SM5310C	
410-38512-5	B-132D_20210504	Total/NA	Water	SM5310C	
410-38512-6	S-374_20210504	Total/NA	Water	SM5310C	
410-38512-7	C-168_20210504	Total/NA	Water	SM5310C	
410-38512-8	WP-A_20210504	Total/NA	Water	SM5310C	
410-38512-9	W-33_20210504	Total/NA	Water	SM5310C	
410-38512-10	S-375_20210504	Total/NA	Water	SM5310C	

Prep Batch: 124750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-1	RW-715_20210504	Total/NA	Water	351.2	
410-38512-2	W-32_SL_20210504	Total/NA	Water	351.2	
410-38512-3	S-223_20210504	Total/NA	Water	351.2	
410-38512-4	B-43_20210504	Total/NA	Water	351.2	
410-38512-5	B-132D_20210504	Total/NA	Water	351.2	
410-38512-6	S-374_20210504	Total/NA	Water	351.2	
410-38512-7	C-168_20210504	Total/NA	Water	351.2	
410-38512-8	WP-A_20210504	Total/NA	Water	351.2	
410-38512-9	W-33_20210504	Total/NA	Water	351.2	
410-38512-10	S-375_20210504	Total/NA	Water	351.2	
MB 410-124750/2-A	Method Blank	Total/NA	Water	351.2	
LCS 410-124750/1-A	Lab Control Sample	Total/NA	Water	351.2	

Analysis Batch: 126159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38512-1	RW-715_20210504	Total/NA	Water	351.2	124750
410-38512-2	W-32_SL_20210504	Total/NA	Water	351.2	124750
410-38512-3	S-223_20210504	Total/NA	Water	351.2	124750
410-38512-4	B-43_20210504	Total/NA	Water	351.2	124750
410-38512-5	B-132D_20210504	Total/NA	Water	351.2	124750
410-38512-6	S-374_20210504	Total/NA	Water	351.2	124750
410-38512-7	C-168_20210504	Total/NA	Water	351.2	124750
410-38512-8	WP-A_20210504	Total/NA	Water	351.2	124750
410-38512-9	W-33_20210504	Total/NA	Water	351.2	124750
410-38512-10	S-375_20210504	Total/NA	Water	351.2	124750
MB 410-124750/2-A	Method Blank	Total/NA	Water	351.2	124750
LCS 410-124750/1-A	Lab Control Sample	Total/NA	Water	351.2	124750

Client Sample ID: RW-715_20210504

Lab Sample ID: 410-38512-1

Date Collected: 05/04/21 09:55

Matrix: Water

Date Received: 05/05/21 17:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	124276	05/10/21 18:08	LCW8	ELLE
Total/NA	Prep	3510C			124733	05/11/21 10:09	QTH7	ELLE
Total/NA	Analysis	8270D		1	125758	05/13/21 06:02	W6XI	ELLE
Total/NA	Prep	RSK-175			123702	05/07/21 09:57	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	123629	05/07/21 19:04	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		124339	05/10/21 08:59	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	20	124340	05/10/21 13:55	LXF2	ELLE
Total/NA	Prep	8011			124637	05/10/21 21:05	QQ3P	ELLE
Total/NA	Analysis	8011		1	124703	05/11/21 07:07	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	123321	05/06/21 18:27	GJ35	ELLE
Total Recoverable	Prep	3005A			123339	05/06/21 14:45	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	125172	05/11/21 18:48	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			123383	05/06/21 16:06	UJLA	ELLE
Dissolved	Analysis	6020A		1	124494	05/10/21 13:35	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	123828	05/07/21 04:07	DI9Q	ELLE
Total/NA	Prep	351.2			124750	05/11/21 07:20	UNJS	ELLE
Total/NA	Analysis	351.2		1	126159	05/13/21 15:10	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	124415	05/08/21 21:52	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	124439	05/09/21 07:23	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: W-32_SL_20210504

Lab Sample ID: 410-38512-2

Date Collected: 05/04/21 10:05

Matrix: Water

Date Received: 05/05/21 17:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	124276	05/10/21 18:32	LCW8	ELLE
Total/NA	Prep	3510C			124733	05/11/21 10:09	QTH7	ELLE
Total/NA	Analysis	8270D		1	125758	05/13/21 06:31	W6XI	ELLE
Total/NA	Prep	RSK-175			123702	05/07/21 09:57	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	123629	05/07/21 19:23	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		124339	05/10/21 08:59	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	20	124340	05/10/21 14:14	LXF2	ELLE
Total/NA	Prep	8011			124637	05/10/21 21:05	QQ3P	ELLE
Total/NA	Analysis	8011		1	124703	05/11/21 07:24	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		50	123321	05/06/21 18:37	GJ35	ELLE
Total Recoverable	Prep	3005A			123339	05/06/21 14:45	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	125172	05/11/21 18:54	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			123383	05/06/21 16:06	UJLA	ELLE
Dissolved	Analysis	6020A		1	124494	05/10/21 13:33	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	123828	05/07/21 03:18	DI9Q	ELLE
Total/NA	Prep	351.2			124750	05/11/21 07:20	UNJS	ELLE
Total/NA	Analysis	351.2		1	126159	05/13/21 15:16	JCG7	ELLE

Client Sample ID: W-32_SL_20210504

Lab Sample ID: 410-38512-2

Date Collected: 05/04/21 10:05

Matrix: Water

Date Received: 05/05/21 17:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	5310 B-2011		10	124415	05/08/21 22:03	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		10	124439	05/09/21 08:44	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: S-223_20210504

Lab Sample ID: 410-38512-3

Date Collected: 05/04/21 11:25

Matrix: Water

Date Received: 05/05/21 17:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	124779	05/11/21 15:02	HDS6	ELLE
Total/NA	Prep	3510C			124733	05/11/21 10:09	QTH7	ELLE
Total/NA	Analysis	8270D		1	125758	05/13/21 07:00	W6XI	ELLE
Total/NA	Prep	RSK-175			123702	05/07/21 09:57	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	123629	05/07/21 19:41	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		124339	05/10/21 08:59	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	100	124340	05/10/21 14:32	LXF2	ELLE
Total/NA	Prep	8011			124637	05/10/21 21:05	QQ3P	ELLE
Total/NA	Analysis	8011		1	124703	05/11/21 07:41	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	123321	05/06/21 18:57	GJ35	ELLE
Total Recoverable	Prep	3005A			123339	05/06/21 14:45	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	125172	05/11/21 18:51	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			123383	05/06/21 16:06	UJLA	ELLE
Dissolved	Analysis	6020A		1	124494	05/10/21 13:31	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	123828	05/07/21 04:00	DI9Q	ELLE
Total/NA	Prep	351.2			124750	05/11/21 07:20	UNJS	ELLE
Total/NA	Analysis	351.2		1	126159	05/13/21 15:18	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	124415	05/08/21 22:14	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	124439	05/09/21 09:01	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: B-43_20210504

Lab Sample ID: 410-38512-4

Date Collected: 05/04/21 12:10

Matrix: Water

Date Received: 05/05/21 17:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	124276	05/10/21 18:56	LCW8	ELLE
Total/NA	Prep	3510C			125104	05/11/21 19:00	DFX4	ELLE
Total/NA	Analysis	8270D		1	125897	05/13/21 20:52	WKV3	ELLE
Total/NA	Prep	RSK-175			123702	05/07/21 09:57	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	123629	05/07/21 20:00	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		124339	05/10/21 08:59	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	20	124340	05/10/21 14:50	LXF2	ELLE
Total/NA	Prep	8011			124637	05/10/21 21:05	QQ3P	ELLE
Total/NA	Analysis	8011		1	124703	05/11/21 07:58	UAMZ	ELLE

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38512-1

Client Sample ID: B-43_20210504

Lab Sample ID: 410-38512-4

Date Collected: 05/04/21 12:10
Date Received: 05/05/21 17:10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		5	123321	05/06/21 19:08	GJ35	ELLE
Total Recoverable	Prep	3005A			123339	05/06/21 14:45	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	125172	05/11/21 18:26	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			123383	05/06/21 16:06	UJLA	ELLE
Dissolved	Analysis	6020A		1	124494	05/10/21 13:11	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	123828	05/07/21 03:47	DI9Q	ELLE
Total/NA	Prep	351.2			124750	05/11/21 07:20	UNJS	ELLE
Total/NA	Analysis	351.2		1	126159	05/13/21 15:20	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	124415	05/08/21 22:47	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	124439	05/09/21 09:17	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: B-132D_20210504

Lab Sample ID: 410-38512-5

Date Collected: 05/04/21 10:35
Date Received: 05/05/21 17:10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	124779	05/11/21 11:27	HDS6	ELLE
Total/NA	Prep	3510C			125104	05/11/21 19:00	DFX4	ELLE
Total/NA	Analysis	8270D		1	125897	05/13/21 21:22	WKV3	ELLE
Total/NA	Prep	RSK-175			123702	05/07/21 09:57	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	123629	05/07/21 20:19	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		124339	05/10/21 08:59	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	20	124340	05/10/21 15:08	LXF2	ELLE
Total/NA	Prep	8011			124637	05/10/21 21:05	QQ3P	ELLE
Total/NA	Analysis	8011		1	124703	05/11/21 08:15	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	123321	05/06/21 19:18	GJ35	ELLE
Total Recoverable	Prep	3005A			123339	05/06/21 14:45	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	125172	05/11/21 18:44	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			123383	05/06/21 16:06	UJLA	ELLE
Dissolved	Analysis	6020A		1	124494	05/10/21 13:51	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	123828	05/07/21 00:37	DI9Q	ELLE
Total/NA	Prep	351.2			124750	05/11/21 07:20	UNJS	ELLE
Total/NA	Analysis	351.2		10	126159	05/13/21 15:50	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	124415	05/08/21 22:57	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	124439	05/09/21 09:33	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: S-374_20210504

Lab Sample ID: 410-38512-6

Date Collected: 05/04/21 13:20
Date Received: 05/05/21 17:10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	125307	05/12/21 18:11	H9JD	ELLE

Client Sample ID: S-374_20210504

Lab Sample ID: 410-38512-6

Date Collected: 05/04/21 13:20

Matrix: Water

Date Received: 05/05/21 17:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			125104	05/11/21 19:00	DFX4	ELLE
Total/NA	Analysis	8270D		1	126273	05/14/21 02:39	ULM3	ELLE
Total/NA	Prep	3510C	DL		125104	05/11/21 19:00	DFX4	ELLE
Total/NA	Analysis	8270D	DL	5	126500	05/14/21 14:16	WKV3	ELLE
Total/NA	Prep	RSK-175			123702	05/07/21 09:57	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	123629	05/07/21 20:55	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		124339	05/10/21 08:59	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	200	124340	05/10/21 15:26	LXF2	ELLE
Total/NA	Prep	8011			124637	05/10/21 21:05	QQ3P	ELLE
Total/NA	Analysis	8011		1	124703	05/11/21 08:32	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	123412	05/06/21 20:51	GJ35	ELLE
Total Recoverable	Prep	3005A			123339	05/06/21 14:45	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	125172	05/11/21 18:41	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			123383	05/06/21 16:06	UJLA	ELLE
Dissolved	Analysis	6020A		1	124494	05/10/21 13:37	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	123828	05/07/21 00:43	DI9Q	ELLE
Total/NA	Prep	351.2			124750	05/11/21 07:20	UNJS	ELLE
Total/NA	Analysis	351.2		1	126159	05/13/21 15:23	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	124415	05/08/21 23:08	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	124439	05/09/21 10:23	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: C-168_20210504

Lab Sample ID: 410-38512-7

Date Collected: 05/04/21 13:35

Matrix: Water

Date Received: 05/05/21 17:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	124779	05/11/21 11:51	HDS6	ELLE
Total/NA	Prep	3510C			125104	05/11/21 19:00	DFX4	ELLE
Total/NA	Analysis	8270D		1	126273	05/14/21 03:09	ULM3	ELLE
Total/NA	Prep	RSK-175			123702	05/07/21 09:57	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	123629	05/07/21 21:13	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		124353	05/10/21 09:22	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	20	124340	05/10/21 16:57	LXF2	ELLE
Total/NA	Prep	8011			124637	05/10/21 21:05	QQ3P	ELLE
Total/NA	Analysis	8011		1	124703	05/11/21 08:49	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	123412	05/06/21 20:15	GJ35	ELLE
Total Recoverable	Prep	3005A			123339	05/06/21 14:45	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	125172	05/11/21 18:38	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			123383	05/06/21 16:06	UJLA	ELLE
Dissolved	Analysis	6020A		1	124494	05/10/21 13:39	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	123828	05/07/21 03:25	DI9Q	ELLE
Total/NA	Prep	351.2			124750	05/11/21 07:20	UNJS	ELLE
Total/NA	Analysis	351.2		1	126159	05/13/21 15:29	JCG7	ELLE

Client Sample ID: C-168_20210504

Lab Sample ID: 410-38512-7

Date Collected: 05/04/21 13:35

Matrix: Water

Date Received: 05/05/21 17:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	5310 B-2011		10	124415	05/08/21 23:19	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	124439	05/09/21 10:39	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: WP-A_20210504

Lab Sample ID: 410-38512-8

Date Collected: 05/04/21 14:00

Matrix: Water

Date Received: 05/05/21 17:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	124779	05/11/21 12:15	HDS6	ELLE
Total/NA	Prep	3510C			124734	05/11/21 10:10	QTH7	ELLE
Total/NA	Analysis	8270D		1	125211	05/12/21 08:16	SJ89	ELLE
Total/NA	Prep	RSK-175			123702	05/07/21 09:57	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	123629	05/07/21 21:32	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		124353	05/10/21 09:22	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	5	124340	05/10/21 17:15	LXF2	ELLE
Total/NA	Prep	8011			124637	05/10/21 21:05	QQ3P	ELLE
Total/NA	Analysis	8011		1	124703	05/11/21 09:06	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	123412	05/06/21 19:21	GJ35	ELLE
Total Recoverable	Prep	3005A			123339	05/06/21 14:45	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	125172	05/11/21 18:08	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			123383	05/06/21 16:06	UJLA	ELLE
Dissolved	Analysis	6020A		1	124494	05/10/21 13:41	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	123828	05/07/21 03:31	DI9Q	ELLE
Total/NA	Prep	351.2			124750	05/11/21 07:20	UNJS	ELLE
Total/NA	Analysis	351.2		1	126159	05/13/21 15:27	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	124415	05/08/21 23:29	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	124439	05/09/21 10:55	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: W-33_20210504

Lab Sample ID: 410-38512-9

Date Collected: 05/04/21 12:55

Matrix: Water

Date Received: 05/05/21 17:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	124779	05/11/21 12:38	HDS6	ELLE
Total/NA	Prep	3510C			124734	05/11/21 10:10	QTH7	ELLE
Total/NA	Analysis	8270D		1	125211	05/12/21 08:45	SJ89	ELLE
Total/NA	Prep	RSK-175			123702	05/07/21 09:57	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	123629	05/07/21 21:50	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		124353	05/10/21 09:22	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	50	124340	05/10/21 17:33	LXF2	ELLE
Total/NA	Prep	8011			124637	05/10/21 21:05	QQ3P	ELLE
Total/NA	Analysis	8011		1	124703	05/11/21 09:22	UAMZ	ELLE

Client Sample ID: W-33_20210504

Lab Sample ID: 410-38512-9

Date Collected: 05/04/21 12:55

Matrix: Water

Date Received: 05/05/21 17:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		5	123412	05/06/21 21:28	GJ35	ELLE
Total Recoverable	Prep	3005A			123339	05/06/21 14:45	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	125172	05/11/21 18:29	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			123383	05/06/21 16:06	UJLA	ELLE
Dissolved	Analysis	6020A		1	124494	05/10/21 13:43	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	123828	05/07/21 03:04	DI9Q	ELLE
Total/NA	Prep	351.2			124750	05/11/21 07:20	UNJS	ELLE
Total/NA	Analysis	351.2		1	126159	05/13/21 15:31	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	124415	05/08/21 23:40	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	124439	05/09/21 12:34	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: S-375_20210504

Lab Sample ID: 410-38512-10

Date Collected: 05/04/21 14:30

Matrix: Water

Date Received: 05/05/21 17:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	124779	05/11/21 16:13	HDS6	ELLE
Total/NA	Analysis	8260C/UST	DL	50	124779	05/11/21 16:37	HDS6	ELLE
Total/NA	Prep	3510C			124734	05/11/21 10:10	QTH7	ELLE
Total/NA	Analysis	8270D		1	125211	05/12/21 09:14	SJ89	ELLE
Total/NA	Prep	3510C	DL		124734	05/11/21 10:10	QTH7	ELLE
Total/NA	Analysis	8270D	DL	5	125662	05/12/21 20:28	W6XI	ELLE
Total/NA	Prep	RSK-175			123702	05/07/21 09:57	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	123629	05/07/21 22:09	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		124353	05/10/21 09:22	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	200	124340	05/10/21 17:51	LXF2	ELLE
Total/NA	Prep	8011			124637	05/10/21 21:05	QQ3P	ELLE
Total/NA	Analysis	8011		1	124703	05/11/21 09:39	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	123412	05/07/21 02:17	GJ35	ELLE
Total Recoverable	Prep	3005A			123339	05/06/21 14:45	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	125172	05/11/21 18:57	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			123383	05/06/21 16:06	UJLA	ELLE
Dissolved	Analysis	6020A		1	124494	05/10/21 13:29	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	123828	05/07/21 03:53	DI9Q	ELLE
Total/NA	Prep	351.2			124750	05/11/21 07:20	UNJS	ELLE
Total/NA	Analysis	351.2		1	126159	05/13/21 15:21	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		25	124415	05/09/21 00:35	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	124439	05/09/21 11:45	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38512-1

Client Sample ID: TB_20210505
Date Collected: 05/05/21 00:00
Date Received: 05/05/21 17:10

Lab Sample ID: 410-38512-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	124779	05/11/21 11:03	HDS6	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38512-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
5310 B-2011		Water	Total Carbon
SM5310C		Water	Total Inorganic Carbon

Method Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38512-1

Method	Method Description	Protocol	Laboratory
8260C/UST	Volatile Organic Compounds (GC/MS)	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
RSK-175	Dissolved Gases (GC)	RSK	ELLE
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	ELLE
6010C	Metals (ICP)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
2320B-2011	Alkalinity, Total	SM	ELLE
351.2	Nitrogen, Total Kjeldahl	MCAWW	ELLE
5310 B-2011	Carbon, Total and Total Inorganic	SM	ELLE
5310C-2011	Total Organic Carbon/Persulfate - Ultrav	SM	ELLE
SM5310C	Carbon, Total Inorganic	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
351.2	Nitrogen, Total Kjeldahl	MCAWW	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
8011	Microextraction	SW846	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique , RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38512-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-38512-1	RW-715_20210504	Water	05/04/21 09:55	05/05/21 17:10	
410-38512-2	W-32_SL_20210504	Water	05/04/21 10:05	05/05/21 17:10	
410-38512-3	S-223_20210504	Water	05/04/21 11:25	05/05/21 17:10	
410-38512-4	B-43_20210504	Water	05/04/21 12:10	05/05/21 17:10	
410-38512-5	B-132D_20210504	Water	05/04/21 10:35	05/05/21 17:10	
410-38512-6	S-374_20210504	Water	05/04/21 13:20	05/05/21 17:10	
410-38512-7	C-168_20210504	Water	05/04/21 13:35	05/05/21 17:10	
410-38512-8	WP-A_20210504	Water	05/04/21 14:00	05/05/21 17:10	
410-38512-9	W-33_20210504	Water	05/04/21 12:55	05/05/21 17:10	
410-38512-10	S-375_20210504	Water	05/04/21 14:30	05/05/21 17:10	
410-38512-11	TB_20210505	Water	05/05/21 00:00	05/05/21 17:10	

Env ... s Request/Chain of Custody

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410-38512 Chain of Custody

Sample # _____

Client: Evergreen c/o Stantec			
Project Name/#: Former PES Annual GWS	Site ID #: 16657		
Project Manager: Andrew Bradley	P.O. #: 213403363		
Sampler: Dane Hopkins, Dana Hoblitzell, Doulton Campbell, Michael Ochmanowicz, Maddie Bredehoeft, Andrea Hill	PWSID #:		
Phone #: 610.840.2541	Quote #:		
State where sample(s) were collected: PA			

Matrix: Soil ☐ Sediment ☐ | Water ☑ (Potable ☐ Ground ☐ NPDES ☐ Surface ☐) | Other: ☐ Trip Blank / Field Blank ☐

Analyses Requested — Preservation Codes

For Lab Use Only: SF #: _____ SCR #: _____

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_2PO_4; NP = Non-Preserved; O = Other

Sample Identification	Collection Date	Collection Time	Grab	Composite	Total # of Containers	Evergreen Petroleum Short List (refer to attached list of analytes) H/NP	Dissolved Lead (field filtered) N	Total Inorganic Carbon (TIC) P/NP	Sulfate NP	Dissolved Headspace Gases (methane, ethane, ethene) H	Total Iron N	Total Calcium N	Total Kjeldahl Nitrogen (TKN) S	Alkalinity as CaCO3 NP	VOC 8260 (including EDB 8260) H	Remarks
RW-715_20210504	5/4/2021	9:55	X		18	X	X	X	X	X	X	X	X	X		
W-32_SL_20210504	5/4/2021	10:05	X		18	X	X	X	X	X	X	X	X	X		
S-223_20210504	5/4/2021	11:25	X		18	X	X	X	X	X	X	X	X	X		
B-43_20210504	5/4/2021	12:10	X		18	X	X	X	X	X	X	X	X	X		
B-132D_20210504	5/4/2021	10:35	X		18	X	X	X	X	X	X	X	X	X		
S-374_20210504	5/4/2021	13:20	X		18	X	X	X	X	X	X	X	X	X		
C-168_20210504	5/4/2021	13:35	X		18	X	X	X	X	X	X	X	X	X		
WP-A_20210504	5/4/2021	14:00	X		18	X	X	X	X	X	X	X	X	X		
(DPH) ~~S-33_20210504~~ W-33_20210504	5/4/2021	12:55	X		18	X	X	X	X	X	X	X	X	X		
S-375_20210504	5/4/2021	14:30	X		18	X	X	X	X	X	X	X	X	X		
TB_20210505	4/14/2021	–	X		2										X	

Turnaround Time Requested (TAT) (please check): Standard ☒ Rush ☐ (DPH)

(Rush TAT is subject to laboratory approval and surcharges)

Date results are needed:

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: abradley@stantec.com

Phone: 610.840.2541

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type IV (CLP SOW)	☐	TX TRRP-13	☐
Type VI (Raw Data Only)	☐		

EDD Required? Yes ☑ No ☐ If yes, format: EQUIS

	Relinquished by:	Date	Time	Received by:	Date	Time
1		5/5/21	1220		5/5	1220
2		5/5/21	1651		Date	Time
3		Date	Time		Date	Time
4		Date	Time		Date	Time
5		Date	Time		Date	Time

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt 0.7-1.8 °C

7045 07:13

Scanned with CamScanner 5/17/2021

vergreen Petroleum Short List (June 2016)

OCs by EPA Method 8260	CAS No.
nzene	71-43-2
mene	98-82-8
chloroethane, 1,2-	107-06-2
nylbenzene	100-41-4
nylene Dibromide*	106-93-4
ethyl tert butyl ether	1634-04-4
luene	108-88-3
methylbenzene, 1,2,4-	95-63-6
methylbenzene, 1,3,5-	108-67-8
lenes	1330-20-7

OCs by EPA Method 8270	CAS No.
thracene	120-12-7
nzo(a)anthracene	56-55-3
nzo(a)pyrene	50-32-8
nzo(b)fluoranthene	205-99-2
nzo(g,h,i)perylene	191-24-2
rysene	218-01-9
uorene	86-73-7
phthalene**	91-20-3
enanthrene	85-01-8
rene	129-00-0

etals by Method 6010/6020	CAS No.
ad***	7439-92-1

thylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

*Metals analysis should be total in soil and dissolved in groundwater.

s list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-38512-1

Login Number: 38512

List Source: Eurofins Lancaster Laboratories Env

List Number: 1

Creator: Cyms, Carolyn M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-38735-1
Client Project/Site: Former PES Annual GWS
Revision: 1

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Mr. Andrew Bradley

Authorized for release by:
6/9/2021 4:55:27 PM

Amek Carter, Project Manager
(717)556-7252
Loran.Carter@eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
6/9/2021 4:55:27 PM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 6
Detection Summary 7
Client Sample Results 13
Surrogate Summary 35
QC Sample Results 38
QC Association Summary 54
Lab Chronicle 64
Certification Summary 72
Method Summary 73
Sample Summary 74
Chain of Custody 75
Receipt Checklists 78

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38735-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
^c	CCV Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
S1+	Surrogate recovery exceeds control limits, high biased.

HPLC/IC

Qualifier	Qualifier Description
FH	MS and/or MSD recovery above control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F3	Duplicate RPD exceeds the control limit
FL	MS and/or MSD recovery below control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-38735-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-38735-1

Revision
The report being provided is a revision of the original report sent on 5/17/2021. The report (revision 1) is being revised due to: Correct calibration data for EDB by 8011.

Receipt
The samples were received on 5/6/2021 3:20 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 4.1º C, 4.8º C, 5.1º C and 5.4º C.

Receipt Exceptions
The following sample container was submitted; however, it was not listed on the Chain-of-Custody (COC): small plastic bottle with no ID just marked "NEED FOR VOC". This was discarded per the client.

GC/MS VOA
Method 8260C/UST: The continuing calibration verification (CCV) associated with batch 410-124782 recovered above the upper control limit for t-Butyl alcohol. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260C/UST: The continuing calibration verification (CCV) associated with batch 410-124782 recovered outside acceptance criteria, low biased, for Methyl tert-butyl ether. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Non-detections of the affected analytes are reported. Any detections are considered estimated

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA
Method 8011: The 1,1,2,2-Tetrachloroethane surrogate recovery for the following samples was outside acceptance limits (high biased) on the primary column due to matrix interference: S-443_20210505 (410-38735-10). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38735-1

Client Sample ID: B-165_20210505 — Lab Sample ID: 410-38735-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,3,5-Trimethylbenzene	2.4	J	5.0	0.30	ug/L	1		8260C/UST	Total/NA
Toluene	0.50	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Benzene	7.0		1.0	0.20	ug/L	1		8260C/UST	Total/NA
1,2,4-Trimethylbenzene	4.4	J	5.0	1.0	ug/L	1		8260C/UST	Total/NA
Isopropylbenzene	0.28	J	5.0	0.20	ug/L	1		8260C/UST	Total/NA
Pyrene	0.22	J	0.55	0.11	ug/L	1		8270D	Total/NA
Methane (1C) - DL	6400		100	60	ug/L	20		RSK-175	Total/NA
Sulfate	1800	J	5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	27000		500	96	ug/L	1		6010C	Total Recoverable
Iron	3600		200	40	ug/L	1		6010C	Total Recoverable
Lead	0.073	J	0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	130000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	1500		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	37000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	7800		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	29000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-442_20210505 — Lab Sample ID: 410-38735-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	18		5.0	2.0	ug/L	5		8260C/UST	Total/NA
Toluene	21		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	20	J	30	7.0	ug/L	5		8260C/UST	Total/NA
Methyl tert-butyl ether	13	^c	5.0	1.0	ug/L	5		8260C/UST	Total/NA
1,2,4-Trimethylbenzene	34		25	5.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	15	J	25	1.0	ug/L	5		8260C/UST	Total/NA
Benzene - DL	1100		50	10	ug/L	50		8260C/UST	Total/NA
Naphthalene	1.6		0.52	0.10	ug/L	1		8270D	Total/NA
Ethane (1C)	2.0	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	8300		250	150	ug/L	50		RSK-175	Total/NA
Sulfate	4400	J	5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	61000		500	96	ug/L	1		6010C	Total Recoverable
Iron	14000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	640000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	590	J	1000	500	ug/L	1		351.2	Total/NA
Total Carbon	140000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	8900		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	130000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: B-39_SL_20210505 — Lab Sample ID: 410-38735-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,3,5-Trimethylbenzene	3.5	J	5.0	0.30	ug/L	1		8260C/UST	Total/NA
Toluene	2.2		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Xylenes, Total	2.7	J	6.0	1.4	ug/L	1		8260C/UST	Total/NA
Benzene	1.3		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Isopropylbenzene	9.3		5.0	0.20	ug/L	1		8260C/UST	Total/NA
Anthracene	0.91		0.50	0.10	ug/L	1		8270D	Total/NA
Benzo[a]anthracene	0.31	J	0.50	0.10	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38735-1

Client Sample ID: B-39_SL_20210505 (Continued) — Lab Sample ID: 410-38735-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	0.28	J	0.50	0.11	ug/L	1		8270D	Total/NA
Benzo[b]fluoranthene	0.28	J	0.50	0.10	ug/L	1		8270D	Total/NA
Benzo[g,h,i]perylene	0.12	J	0.50	0.10	ug/L	1		8270D	Total/NA
Chrysene	0.33	J	0.50	0.10	ug/L	1		8270D	Total/NA
Fluorene	2.1		0.50	0.12	ug/L	1		8270D	Total/NA
Pyrene	0.89		0.50	0.10	ug/L	1		8270D	Total/NA
Ethane (1C)	4.5	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	27000		1000	600	ug/L	200		RSK-175	Total/NA
Calcium	120000		500	96	ug/L	1		6010C	Total Recoverable
Iron	4600		200	40	ug/L	1		6010C	Total Recoverable
Lead	0.40	J	0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	490000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	4700		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	120000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	15000		5000	2500	ug/L	5		5310C-2011	Total/NA
Total Inorganic Carbon	110000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-446_20210505 — Lab Sample ID: 410-38735-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	170		5.0	2.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	3.3	J	25	1.5	ug/L	5		8260C/UST	Total/NA
Toluene	81		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	190		30	7.0	ug/L	5		8260C/UST	Total/NA
Benzene	1.2	J	5.0	1.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	49		25	1.0	ug/L	5		8260C/UST	Total/NA
Fluorene	0.22	J	0.51	0.12	ug/L	1		8270D	Total/NA
Naphthalene	53		0.51	0.10	ug/L	1		8270D	Total/NA
Ethane (1C)	2.4	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	16000		500	300	ug/L	100		RSK-175	Total/NA
Sulfate	3100	J	5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	35000		500	96	ug/L	1		6010C	Total Recoverable
Iron	18000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	200000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Carbon	49000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	2300		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	47000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-44_20210505 — Lab Sample ID: 410-38735-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	3.1	J	5.0	2.0	ug/L	5		8260C/UST	Total/NA
Toluene	8.8		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	12	J	30	7.0	ug/L	5		8260C/UST	Total/NA
Methyl tert-butyl ether	54	^c	5.0	1.0	ug/L	5		8260C/UST	Total/NA
Benzene	150		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	31		25	1.0	ug/L	5		8260C/UST	Total/NA
t-Butyl alcohol	2500	^c	250	60	ug/L	5		8260C/UST	Total/NA
Fluorene	0.15	J	0.58	0.14	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: S-44_20210505 (Continued) — Lab Sample ID: 410-38735-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethane (1C)	1.1	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	14000		500	300	ug/L	100		RSK-175	Total/NA
Calcium	37000		500	96	ug/L	1		6010C	Total Recoverable
Iron	19000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	300000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	3100		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	79000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	14000		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	65000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: DUP-6_20210505 — Lab Sample ID: 410-38735-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	2.7	J	5.0	2.0	ug/L	5		8260C/UST	Total/NA
Toluene	7.9		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	9.8	J	30	7.0	ug/L	5		8260C/UST	Total/NA
Methyl tert-butyl ether	54	^c	5.0	1.0	ug/L	5		8260C/UST	Total/NA
Benzene	150		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	24	J	25	1.0	ug/L	5		8260C/UST	Total/NA
t-Butyl alcohol	2600	^c	250	60	ug/L	5		8260C/UST	Total/NA
Fluorene	0.20	J	0.59	0.14	ug/L	1		8270D	Total/NA
Ethane (1C)	1.2	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	17000		500	300	ug/L	100		RSK-175	Total/NA
Calcium	37000		500	96	ug/L	1		6010C	Total Recoverable
Iron	19000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	300000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	3300		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	84000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	14000		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	70000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-445_20210505 — Lab Sample ID: 410-38735-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	49		5.0	2.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	8.1	J	25	1.5	ug/L	5		8260C/UST	Total/NA
Toluene	100		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	90		30	7.0	ug/L	5		8260C/UST	Total/NA
Benzene	410		5.0	1.0	ug/L	5		8260C/UST	Total/NA
1,2,4-Trimethylbenzene	14	J	25	5.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	22	J	25	1.0	ug/L	5		8260C/UST	Total/NA
Naphthalene	17		0.52	0.10	ug/L	1		8270D	Total/NA
Ethane (1C)	1.9	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	3300		100	60	ug/L	20		RSK-175	Total/NA
Sulfate	3500	J FH	5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	12000		500	96	ug/L	1		6010C	Total Recoverable
Iron	3100		200	40	ug/L	1		6010C	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: S-445_20210505 (Continued)

Lab Sample ID: 410-38735-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Alkalinity as CaCO3 to pH 4.5	460000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	15000		10000	5000	ug/L	10		351.2	Total/NA
Total Carbon	190000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	9800		5000	2500	ug/L	5		5310C-2011	Total/NA
Total Inorganic Carbon	180000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-50_20210505

Lab Sample ID: 410-38735-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	0.48	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Methyl tert-butyl ether	0.27	J ^c	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Benzene	2.1		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Isopropylbenzene	1.2	J	5.0	0.20	ug/L	1		8260C/UST	Total/NA
Naphthalene	0.44	J	0.60	0.12	ug/L	1		8270D	Total/NA
Phenanthrene	0.34	J	0.60	0.13	ug/L	1		8270D	Total/NA
Pyrene	0.29	J	0.60	0.12	ug/L	1		8270D	Total/NA
Methane (1C) - DL	9700		250	150	ug/L	50		RSK-175	Total/NA
Sulfate	3700	J	5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	69000		500	96	ug/L	1		6010C	Total Recoverable
Iron	92000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	290000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	2800		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	89000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	14000		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	75000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: B-150_SL_20210505

Lab Sample ID: 410-38735-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	430		100	40	ug/L	100		8260C/UST	Total/NA
Xylenes, Total	1900		600	140	ug/L	100		8260C/UST	Total/NA
Isopropylbenzene	9000		500	20	ug/L	100		8260C/UST	Total/NA
Toluene - DL	60000		1000	200	ug/L	1000		8260C/UST	Total/NA
Benzene - DL2	420000		10000	2000	ug/L	10000		8260C/UST	Total/NA
Benzo[a]anthracene	0.24	J	0.50	0.10	ug/L	1		8270D	Total/NA
Benzo[a]pyrene	0.22	J	0.50	0.11	ug/L	1		8270D	Total/NA
Benzo[b]fluoranthene	0.22	J	0.50	0.10	ug/L	1		8270D	Total/NA
Benzo[g,h,i]perylene	0.10	J	0.50	0.10	ug/L	1		8270D	Total/NA
Chrysene	0.20	J	0.50	0.10	ug/L	1		8270D	Total/NA
Fluorene	1.2		0.50	0.12	ug/L	1		8270D	Total/NA
Naphthalene	38		0.50	0.10	ug/L	1		8270D	Total/NA
Phenanthrene	2.0		0.50	0.11	ug/L	1		8270D	Total/NA
Pyrene	0.64		0.50	0.10	ug/L	1		8270D	Total/NA
Ethane (1C)	1.7	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	16000		500	300	ug/L	100		RSK-175	Total/NA
Sulfate	4200	J	5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	53000		500	96	ug/L	1		6010C	Total Recoverable
Iron	22000		200	40	ug/L	1		6010C	Total Recoverable
Lead	0.17	J	0.52	0.073	ug/L	1		6020A	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: B-150_SL_20210505 (Continued) — Lab Sample ID: 410-38735-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Alkalinity as CaCO3 to pH 4.5	220000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	3500		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	190000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	33000		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	160000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-443_20210505 — Lab Sample ID: 410-38735-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	31		5.0	2.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	4.0	J	25	1.5	ug/L	5		8260C/UST	Total/NA
Toluene	7.3		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	18	J	30	7.0	ug/L	5		8260C/UST	Total/NA
Methyl tert-butyl ether	11	^c	5.0	1.0	ug/L	5		8260C/UST	Total/NA
Benzene	130		5.0	1.0	ug/L	5		8260C/UST	Total/NA
1,2,4-Trimethylbenzene	190		25	5.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	7.3	J	25	1.0	ug/L	5		8260C/UST	Total/NA
Naphthalene	6.7		0.51	0.10	ug/L	1		8270D	Total/NA
Ethane (1C)	1.3	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	7400		100	60	ug/L	20		RSK-175	Total/NA
Sulfate	3500	J	5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	87000		500	96	ug/L	1		6010C	Total Recoverable
Iron	41000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	430000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	590	J	1000	500	ug/L	1		351.2	Total/NA
Total Carbon	88000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	8900		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	79000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-396_20210505 — Lab Sample ID: 410-38735-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	730		50	10	ug/L	50		8260C/UST	Total/NA
Isopropylbenzene	22	J	250	10	ug/L	50		8260C/UST	Total/NA
t-Butyl alcohol - DL	45000		25000	6000	ug/L	500		8260C/UST	Total/NA
Naphthalene	0.38	J	0.57	0.11	ug/L	1		8270D	Total/NA
Ethane (1C)	11		5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	21000		500	300	ug/L	100		RSK-175	Total/NA
Calcium	58000		500	96	ug/L	1		6010C	Total Recoverable
Iron	35000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	400000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	860	J	1000	500	ug/L	1		351.2	Total/NA
Total Carbon	180000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	32000	FL	1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	150000		2000	600	ug/L	1		SM5310C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38735-1

Client Sample ID: S-441_20210505 — Lab Sample ID: 410-38735-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	23		5.0	2.0	ug/L	5		8260C/UST	Total/NA
1,2-Dichloroethane	2.0	J	5.0	1.5	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	17	J	25	1.5	ug/L	5		8260C/UST	Total/NA
Toluene	120		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	150		30	7.0	ug/L	5		8260C/UST	Total/NA
Methyl tert-butyl ether	6.0	^c	5.0	1.0	ug/L	5		8260C/UST	Total/NA
Benzene	360		5.0	1.0	ug/L	5		8260C/UST	Total/NA
1,2,4-Trimethylbenzene	22	J	25	5.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	19	J	25	1.0	ug/L	5		8260C/UST	Total/NA
Naphthalene	4.8		0.53	0.11	ug/L	1		8270D	Total/NA
Methane (1C) - DL	16000		250	150	ug/L	50		RSK-175	Total/NA
Calcium	49000		500	96	ug/L	1		6010C	Total Recoverable
Iron	12000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	270000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	630	J	1000	500	ug/L	1		351.2	Total/NA
Total Carbon	63000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	8800		5000	2500	ug/L	5		5310C-2011	Total/NA
Total Inorganic Carbon	54000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: B-156_SL_20210505 — Lab Sample ID: 410-38735-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	3.8	J	5.0	2.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	3.9	J	25	1.5	ug/L	5		8260C/UST	Total/NA
Toluene	45		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	21	J	30	7.0	ug/L	5		8260C/UST	Total/NA
Benzene	210		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	100		25	1.0	ug/L	5		8260C/UST	Total/NA
Anthracene	0.57		0.50	0.10	ug/L	1		8270D	Total/NA
Benzo[a]anthracene	0.45	J	0.50	0.10	ug/L	1		8270D	Total/NA
Benzo[a]pyrene	0.30	J	0.50	0.11	ug/L	1		8270D	Total/NA
Benzo[b]fluoranthene	0.29	J	0.50	0.10	ug/L	1		8270D	Total/NA
Chrysene	0.42	J	0.50	0.10	ug/L	1		8270D	Total/NA
Fluorene	2.1		0.50	0.12	ug/L	1		8270D	Total/NA
Pyrene	1.2		0.50	0.10	ug/L	1		8270D	Total/NA
Ethane (1C)	7.3		5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	22000		500	300	ug/L	100		RSK-175	Total/NA
Calcium	86000		500	96	ug/L	1		6010C	Total Recoverable
Iron	9200		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	410000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	5900		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	110000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	17000		2000	1000	ug/L	2		5310C-2011	Total/NA
Total Inorganic Carbon	93000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: TB_20210506 — Lab Sample ID: 410-38735-14

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample ID: B-165_20210505

Date Collected: 05/05/21 09:00
Date Received: 05/06/21 15:20

Lab Sample ID: 410-38735-1

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/13/21 15:27	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/13/21 15:27	1
1,3,5-Trimethylbenzene	**2.4**	**J**	5.0	0.30	ug/L			05/13/21 15:27	1
Toluene	**0.50**	**J**	1.0	0.20	ug/L			05/13/21 15:27	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/13/21 15:27	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/13/21 15:27	1
Benzene	**7.0**		1.0	0.20	ug/L			05/13/21 15:27	1
1,2,4-Trimethylbenzene	**4.4**	**J**	5.0	1.0	ug/L			05/13/21 15:27	1
Isopropylbenzene	**0.28**	**J**	5.0	0.20	ug/L			05/13/21 15:27	1
t-Butyl alcohol	ND		50	12	ug/L			05/13/21 15:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*		*05/13/21 15:27*	*1*
4-Bromofluorobenzene (Surr)	*107*		*80 - 120*		*05/13/21 15:27*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*05/13/21 15:27*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/13/21 15:27*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.55	0.11	ug/L		05/12/21 10:10	05/13/21 00:32	1
Benzo[a]anthracene	ND		0.55	0.11	ug/L		05/12/21 10:10	05/13/21 00:32	1
Benzo[a]pyrene	ND		0.55	0.12	ug/L		05/12/21 10:10	05/13/21 00:32	1
Benzo[b]fluoranthene	ND		0.55	0.11	ug/L		05/12/21 10:10	05/13/21 00:32	1
Benzo[g,h,i]perylene	ND		0.55	0.11	ug/L		05/12/21 10:10	05/13/21 00:32	1
Chrysene	ND		0.55	0.11	ug/L		05/12/21 10:10	05/13/21 00:32	1
Fluorene	ND		0.55	0.13	ug/L		05/12/21 10:10	05/13/21 00:32	1
Naphthalene	ND		0.55	0.11	ug/L		05/12/21 10:10	05/13/21 00:32	1
Phenanthrene	ND		0.55	0.12	ug/L		05/12/21 10:10	05/13/21 00:32	1
Pyrene	**0.22**	**J**	0.55	0.11	ug/L		05/12/21 10:10	05/13/21 00:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*65*		*44 - 102*	*05/12/21 10:10*	*05/13/21 00:32*	*1*
Nitrobenzene-d5 (Surr)	*64*		*23 - 128*	*05/12/21 10:10*	*05/13/21 00:32*	*1*
p-Terphenyl-d14 (Surr)	*61*		*31 - 113*	*05/12/21 10:10*	*05/13/21 00:32*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/10/21 10:10	05/10/21 12:51	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/10/21 10:10	05/10/21 12:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*73*		*28 - 140*	*05/10/21 10:10*	*05/10/21 12:51*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**6400**		100	60	ug/L		05/11/21 07:50	05/11/21 10:01	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*103*		*28 - 140*	*05/11/21 07:50*	*05/11/21 10:01*	*20*

Client Sample ID: B-165_20210505

Lab Sample ID: 410-38735-1

Date Collected: 05/05/21 09:00

Matrix: Water

Date Received: 05/06/21 15:20

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND	*+	0.029	0.0097	ug/L		05/11/21 16:00	05/12/21 14:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*116*		*46 - 136*	*05/11/21 16:00*	*05/12/21 14:22*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*126*		*46 - 136*	*05/11/21 16:00*	*05/12/21 14:22*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**1800**	**J**	5000	1500	ug/L			05/08/21 08:24	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**27000**		500	96	ug/L		05/10/21 01:52	05/12/21 18:58	1
Iron	**3600**		200	40	ug/L		05/10/21 01:52	05/12/21 18:58	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.073**	**J**	0.52	0.073	ug/L		05/10/21 04:13	05/10/21 17:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**130000**		8000	8000	ug/L			05/11/21 02:29	1
Total Kjeldahl Nitrogen	**1500**		1000	500	ug/L		05/11/21 13:58	05/12/21 13:52	1
Total Carbon	**37000**		10000	5000	ug/L			05/12/21 12:07	10
Total Organic Carbon	**7800**		1000	500	ug/L			05/11/21 21:08	1
Total Inorganic Carbon	**29000**		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: S-442_20210505

Lab Sample ID: 410-38735-2

Date Collected: 05/05/21 08:55

Matrix: Water

Date Received: 05/06/21 15:20

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**18**		5.0	2.0	ug/L			05/11/21 14:50	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			05/11/21 14:50	5
1,3,5-Trimethylbenzene	ND		25	1.5	ug/L			05/11/21 14:50	5
Toluene	**21**		5.0	1.0	ug/L			05/11/21 14:50	5
Xylenes, Total	**20**	**J**	30	7.0	ug/L			05/11/21 14:50	5
Methyl tert-butyl ether	**13**	**^c**	5.0	1.0	ug/L			05/11/21 14:50	5
1,2,4-Trimethylbenzene	**34**		25	5.0	ug/L			05/11/21 14:50	5
Isopropylbenzene	**15**	**J**	25	1.0	ug/L			05/11/21 14:50	5
t-Butyl alcohol	ND	^c	250	60	ug/L			05/11/21 14:50	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*80 - 120*		*05/11/21 14:50*	*5*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*05/11/21 14:50*	*5*
Dibromofluoromethane (Surr)	*94*		*80 - 120*		*05/11/21 14:50*	*5*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/11/21 14:50*	*5*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1100**		50	10	ug/L			05/12/21 19:23	50

Client Sample ID: S-442_20210505
Date Collected: 05/05/21 08:55
Date Received: 05/06/21 15:20

Lab Sample ID: 410-38735-2
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*		*05/12/21 19:23*	*50*
4-Bromofluorobenzene (Surr)	*89*		*80 - 120*		*05/12/21 19:23*	*50*
Dibromofluoromethane (Surr)	*105*		*80 - 120*		*05/12/21 19:23*	*50*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/12/21 19:23*	*50*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.52	0.10	ug/L		05/12/21 10:10	05/13/21 01:00	1
Benzo[a]anthracene	ND		0.52	0.10	ug/L		05/12/21 10:10	05/13/21 01:00	1
Benzo[a]pyrene	ND		0.52	0.11	ug/L		05/12/21 10:10	05/13/21 01:00	1
Benzo[b]fluoranthene	ND		0.52	0.10	ug/L		05/12/21 10:10	05/13/21 01:00	1
Benzo[g,h,i]perylene	ND		0.52	0.10	ug/L		05/12/21 10:10	05/13/21 01:00	1
Chrysene	ND		0.52	0.10	ug/L		05/12/21 10:10	05/13/21 01:00	1
Fluorene	ND		0.52	0.12	ug/L		05/12/21 10:10	05/13/21 01:00	1
Naphthalene	**1.6**		0.52	0.10	ug/L		05/12/21 10:10	05/13/21 01:00	1
Phenanthrene	ND		0.52	0.11	ug/L		05/12/21 10:10	05/13/21 01:00	1
Pyrene	ND		0.52	0.10	ug/L		05/12/21 10:10	05/13/21 01:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*64*		*44 - 102*	*05/12/21 10:10*	*05/13/21 01:00*	*1*
Nitrobenzene-d5 (Surr)	*67*		*23 - 128*	*05/12/21 10:10*	*05/13/21 01:00*	*1*
p-Terphenyl-d14 (Surr)	*77*		*31 - 113*	*05/12/21 10:10*	*05/13/21 01:00*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**2.0**	**J**	5.0	1.0	ug/L		05/10/21 10:10	05/10/21 13:06	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/10/21 10:10	05/10/21 13:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*72*		*28 - 140*	*05/10/21 10:10*	*05/10/21 13:06*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**8300**		250	150	ug/L		05/11/21 07:50	05/11/21 10:19	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*102*		*28 - 140*	*05/11/21 07:50*	*05/11/21 10:19*	*50*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0097	ug/L		05/11/21 16:30	05/12/21 08:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*107*		*46 - 136*	*05/11/21 16:30*	*05/12/21 08:19*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*99*		*46 - 136*	*05/11/21 16:30*	*05/12/21 08:19*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**4400**	**J**	5000	1500	ug/L			05/08/21 08:40	5

Client Sample ID: S-442_20210505

Lab Sample ID: 410-38735-2

Date Collected: 05/05/21 08:55
Matrix: Water
Date Received: 05/06/21 15:20

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	61000		500	96	ug/L		05/10/21 01:52	05/12/21 19:10	1
Iron	14000		200	40	ug/L		05/10/21 01:52	05/12/21 19:10	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/10/21 04:13	05/10/21 17:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	640000		8000	8000	ug/L			05/11/21 02:08	1
Total Kjeldahl Nitrogen	590	J	1000	500	ug/L		05/11/21 13:58	05/12/21 13:50	1
Total Carbon	140000		10000	5000	ug/L			05/12/21 12:39	10
Total Organic Carbon	8900		1000	500	ug/L			05/11/21 21:24	1
Total Inorganic Carbon	130000		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: B-39_SL_20210505

Lab Sample ID: 410-38735-3

Date Collected: 05/05/21 09:20
Matrix: Water
Date Received: 05/06/21 15:20

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/11/21 14:01	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/11/21 14:01	1
1,3,5-Trimethylbenzene	3.5	J	5.0	0.30	ug/L			05/11/21 14:01	1
Toluene	2.2		1.0	0.20	ug/L			05/11/21 14:01	1
Xylenes, Total	2.7	J	6.0	1.4	ug/L			05/11/21 14:01	1
Methyl tert-butyl ether	ND	^c	1.0	0.20	ug/L			05/11/21 14:01	1
Benzene	1.3		1.0	0.20	ug/L			05/11/21 14:01	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/11/21 14:01	1
Isopropylbenzene	9.3		5.0	0.20	ug/L			05/11/21 14:01	1
t-Butyl alcohol	ND	^c	50	12	ug/L			05/11/21 14:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*80 - 120*		*05/11/21 14:01*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*05/11/21 14:01*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*05/11/21 14:01*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*05/11/21 14:01*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	0.91		0.50	0.10	ug/L		05/12/21 10:10	05/13/21 01:28	1
Benzo[a]anthracene	0.31	J	0.50	0.10	ug/L		05/12/21 10:10	05/13/21 01:28	1
Benzo[a]pyrene	0.28	J	0.50	0.11	ug/L		05/12/21 10:10	05/13/21 01:28	1
Benzo[b]fluoranthene	0.28	J	0.50	0.10	ug/L		05/12/21 10:10	05/13/21 01:28	1
Benzo[g,h,i]perylene	0.12	J	0.50	0.10	ug/L		05/12/21 10:10	05/13/21 01:28	1
Chrysene	0.33	J	0.50	0.10	ug/L		05/12/21 10:10	05/13/21 01:28	1
Fluorene	2.1		0.50	0.12	ug/L		05/12/21 10:10	05/13/21 01:28	1
Naphthalene	ND		0.50	0.10	ug/L		05/12/21 10:10	05/13/21 01:28	1
Phenanthrene	ND		0.50	0.11	ug/L		05/12/21 10:10	05/13/21 01:28	1
Pyrene	0.89		0.50	0.10	ug/L		05/12/21 10:10	05/13/21 01:28	1

Client Sample ID: B-39_SL_20210505

Date Collected: 05/05/21 09:20
Date Received: 05/06/21 15:20

Lab Sample ID: 410-38735-3

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*63*		*44 - 102*	*05/12/21 10:10*	*05/13/21 01:28*	*1*
Nitrobenzene-d5 (Surr)	*68*		*23 - 128*	*05/12/21 10:10*	*05/13/21 01:28*	*1*
p-Terphenyl-d14 (Surr)	*75*		*31 - 113*	*05/12/21 10:10*	*05/13/21 01:28*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**4.5**	**J**	5.0	1.0	ug/L		05/10/21 10:10	05/10/21 13:22	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/10/21 10:10	05/10/21 13:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*74*		*28 - 140*	*05/10/21 10:10*	*05/10/21 13:22*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**27000**		1000	600	ug/L		05/11/21 07:50	05/11/21 10:38	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*105*		*28 - 140*	*05/11/21 07:50*	*05/11/21 10:38*	*200*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0096	ug/L		05/11/21 16:30	05/12/21 08:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*102*		*46 - 136*	*05/11/21 16:30*	*05/12/21 08:36*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*99*		*46 - 136*	*05/11/21 16:30*	*05/12/21 08:36*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			05/08/21 09:28	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**120000**		500	96	ug/L		05/10/21 01:52	05/12/21 17:58	1
Iron	**4600**		200	40	ug/L		05/10/21 01:52	05/12/21 17:58	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.40**	**J**	0.52	0.073	ug/L		05/10/21 04:13	05/10/21 17:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**490000**		8000	8000	ug/L			05/11/21 01:48	1
Total Kjeldahl Nitrogen	**4700**		1000	500	ug/L		05/11/21 13:58	05/12/21 13:54	1
Total Carbon	**120000**		10000	5000	ug/L			05/12/21 12:50	10
Total Organic Carbon	**15000**		5000	2500	ug/L			05/11/21 22:29	5
Total Inorganic Carbon	**110000**		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: S-446_20210505

Date Collected: 05/05/21 10:00
Date Received: 05/06/21 15:20

Lab Sample ID: 410-38735-4

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**170**		5.0	2.0	ug/L			05/11/21 15:13	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			05/11/21 15:13	5
1,3,5-Trimethylbenzene	**3.3**	**J**	25	1.5	ug/L			05/11/21 15:13	5
Toluene	**81**		5.0	1.0	ug/L			05/11/21 15:13	5
Xylenes, Total	**190**		30	7.0	ug/L			05/11/21 15:13	5
Methyl tert-butyl ether	ND	^c	5.0	1.0	ug/L			05/11/21 15:13	5
Benzene	**1.2**	**J**	5.0	1.0	ug/L			05/11/21 15:13	5
1,2,4-Trimethylbenzene	ND		25	5.0	ug/L			05/11/21 15:13	5
Isopropylbenzene	**49**		25	1.0	ug/L			05/11/21 15:13	5
t-Butyl alcohol	ND	^c	250	60	ug/L			05/11/21 15:13	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*80 - 120*		*05/11/21 15:13*	*5*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*05/11/21 15:13*	*5*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*05/11/21 15:13*	*5*
Toluene-d8 (Surr)	*106*		*80 - 120*		*05/11/21 15:13*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.51	0.10	ug/L		05/12/21 10:10	05/13/21 01:57	1
Benzo[a]anthracene	ND		0.51	0.10	ug/L		05/12/21 10:10	05/13/21 01:57	1
Benzo[a]pyrene	ND		0.51	0.11	ug/L		05/12/21 10:10	05/13/21 01:57	1
Benzo[b]fluoranthene	ND		0.51	0.10	ug/L		05/12/21 10:10	05/13/21 01:57	1
Benzo[g,h,i]perylene	ND		0.51	0.10	ug/L		05/12/21 10:10	05/13/21 01:57	1
Chrysene	ND		0.51	0.10	ug/L		05/12/21 10:10	05/13/21 01:57	1
Fluorene	**0.22**	**J**	0.51	0.12	ug/L		05/12/21 10:10	05/13/21 01:57	1
Naphthalene	**53**		0.51	0.10	ug/L		05/12/21 10:10	05/13/21 01:57	1
Phenanthrene	ND		0.51	0.11	ug/L		05/12/21 10:10	05/13/21 01:57	1
Pyrene	ND		0.51	0.10	ug/L		05/12/21 10:10	05/13/21 01:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*67*		*44 - 102*	*05/12/21 10:10*	*05/13/21 01:57*	*1*
Nitrobenzene-d5 (Surr)	*67*		*23 - 128*	*05/12/21 10:10*	*05/13/21 01:57*	*1*
p-Terphenyl-d14 (Surr)	*66*		*31 - 113*	*05/12/21 10:10*	*05/13/21 01:57*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**2.4**	**J**	5.0	1.0	ug/L		05/10/21 10:10	05/10/21 13:37	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/10/21 10:10	05/10/21 13:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*83*		*28 - 140*	*05/10/21 10:10*	*05/10/21 13:37*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**16000**		500	300	ug/L		05/11/21 07:50	05/11/21 10:56	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*106*		*28 - 140*	*05/11/21 07:50*	*05/11/21 10:56*	*100*

Client Sample ID: S-446_20210505

Lab Sample ID: 410-38735-4

Date Collected: 05/05/21 10:00
Matrix: Water
Date Received: 05/06/21 15:20

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0098	ug/L		05/11/21 16:30	05/12/21 09:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*113*		*46 - 136*	*05/11/21 16:30*	*05/12/21 09:10*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*114*		*46 - 136*	*05/11/21 16:30*	*05/12/21 09:10*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**3100**	**J**	5000	1500	ug/L			05/08/21 09:45	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**35000**		500	96	ug/L		05/10/21 01:52	05/12/21 18:52	1
Iron	**18000**		200	40	ug/L		05/10/21 01:52	05/12/21 18:52	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/10/21 04:13	05/10/21 18:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**200000**		8000	8000	ug/L			05/11/21 02:55	1
Total Kjeldahl Nitrogen	ND		1000	500	ug/L		05/11/21 13:58	05/12/21 13:44	1
Total Carbon	**49000**		10000	5000	ug/L			05/12/21 13:01	10
Total Organic Carbon	**2300**		1000	500	ug/L			05/13/21 01:47	1
Total Inorganic Carbon	**47000**		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: S-44_20210505

Lab Sample ID: 410-38735-5

Date Collected: 05/05/21 10:35
Matrix: Water
Date Received: 05/06/21 15:20

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**3.1**	**J**	5.0	2.0	ug/L			05/11/21 16:01	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			05/11/21 16:01	5
1,3,5-Trimethylbenzene	ND		25	1.5	ug/L			05/11/21 16:01	5
Toluene	**8.8**		5.0	1.0	ug/L			05/11/21 16:01	5
Xylenes, Total	**12**	**J**	30	7.0	ug/L			05/11/21 16:01	5
Methyl tert-butyl ether	**54**	**^c**	5.0	1.0	ug/L			05/11/21 16:01	5
Benzene	**150**		5.0	1.0	ug/L			05/11/21 16:01	5
1,2,4-Trimethylbenzene	ND		25	5.0	ug/L			05/11/21 16:01	5
Isopropylbenzene	**31**		25	1.0	ug/L			05/11/21 16:01	5
t-Butyl alcohol	**2500**	**^c**	250	60	ug/L			05/11/21 16:01	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*80 - 120*		*05/11/21 16:01*	*5*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*05/11/21 16:01*	*5*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*05/11/21 16:01*	*5*
Toluene-d8 (Surr)	*104*		*80 - 120*		*05/11/21 16:01*	*5*

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38735-1

Client Sample ID: S-44_20210505

Date Collected: 05/05/21 10:35
Date Received: 05/06/21 15:20

Lab Sample ID: 410-38735-5

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.58	0.12	ug/L		05/12/21 10:10	05/13/21 02:25	1
Benzo[a]anthracene	ND		0.58	0.12	ug/L		05/12/21 10:10	05/13/21 02:25	1
Benzo[a]pyrene	ND		0.58	0.13	ug/L		05/12/21 10:10	05/13/21 02:25	1
Benzo[b]fluoranthene	ND		0.58	0.12	ug/L		05/12/21 10:10	05/13/21 02:25	1
Benzo[g,h,i]perylene	ND		0.58	0.12	ug/L		05/12/21 10:10	05/13/21 02:25	1
Chrysene	ND		0.58	0.12	ug/L		05/12/21 10:10	05/13/21 02:25	1
Fluorene	**0.15**	**J**	0.58	0.14	ug/L		05/12/21 10:10	05/13/21 02:25	1
Naphthalene	ND		0.58	0.12	ug/L		05/12/21 10:10	05/13/21 02:25	1
Phenanthrene	ND		0.58	0.13	ug/L		05/12/21 10:10	05/13/21 02:25	1
Pyrene	ND		0.58	0.12	ug/L		05/12/21 10:10	05/13/21 02:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*67*		*44 - 102*	*05/12/21 10:10*	*05/13/21 02:25*	*1*
Nitrobenzene-d5 (Surr)	*69*		*23 - 128*	*05/12/21 10:10*	*05/13/21 02:25*	*1*
p-Terphenyl-d14 (Surr)	*77*		*31 - 113*	*05/12/21 10:10*	*05/13/21 02:25*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**1.1**	**J**	5.0	1.0	ug/L		05/10/21 10:10	05/10/21 13:52	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/10/21 10:10	05/10/21 13:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*76*		*28 - 140*	*05/10/21 10:10*	*05/10/21 13:52*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**14000**		500	300	ug/L		05/11/21 07:50	05/11/21 11:14	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*108*		*28 - 140*	*05/11/21 07:50*	*05/11/21 11:14*	*100*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0097	ug/L		05/11/21 16:30	05/12/21 09:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*113*		*46 - 136*	*05/11/21 16:30*	*05/12/21 09:27*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*121*		*46 - 136*	*05/11/21 16:30*	*05/12/21 09:27*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			05/08/21 10:01	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**37000**		500	96	ug/L		05/10/21 01:55	05/10/21 12:15	1
Iron	**19000**		200	40	ug/L		05/10/21 01:55	05/10/21 12:15	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/10/21 04:13	05/10/21 18:15	1

Client Sample ID: S-44_20210505

Lab Sample ID: 410-38735-5

Date Collected: 05/05/21 10:35
Matrix: Water
Date Received: 05/06/21 15:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	300000		8000	8000	ug/L			05/11/21 01:28	1
Total Kjeldahl Nitrogen	3100		1000	500	ug/L		05/11/21 13:58	05/12/21 13:46	1
Total Carbon	79000		10000	5000	ug/L			05/12/21 13:11	10
Total Organic Carbon	14000		1000	500	ug/L			05/11/21 23:01	1
Total Inorganic Carbon	65000		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: DUP-6_20210505

Lab Sample ID: 410-38735-6

Date Collected: 05/05/21 00:00
Matrix: Water
Date Received: 05/06/21 15:20

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	2.7	J	5.0	2.0	ug/L			05/11/21 16:25	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			05/11/21 16:25	5
1,3,5-Trimethylbenzene	ND		25	1.5	ug/L			05/11/21 16:25	5
Toluene	7.9		5.0	1.0	ug/L			05/11/21 16:25	5
Xylenes, Total	9.8	J	30	7.0	ug/L			05/11/21 16:25	5
Methyl tert-butyl ether	54	^c	5.0	1.0	ug/L			05/11/21 16:25	5
Benzene	150		5.0	1.0	ug/L			05/11/21 16:25	5
1,2,4-Trimethylbenzene	ND		25	5.0	ug/L			05/11/21 16:25	5
Isopropylbenzene	24	J	25	1.0	ug/L			05/11/21 16:25	5
t-Butyl alcohol	2600	^c	250	60	ug/L			05/11/21 16:25	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*80 - 120*		*05/11/21 16:25*	*5*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*05/11/21 16:25*	*5*
Dibromofluoromethane (Surr)	*94*		*80 - 120*		*05/11/21 16:25*	*5*
Toluene-d8 (Surr)	*103*		*80 - 120*		*05/11/21 16:25*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.59	0.12	ug/L		05/12/21 10:10	05/13/21 02:53	1
Benzo[a]anthracene	ND		0.59	0.12	ug/L		05/12/21 10:10	05/13/21 02:53	1
Benzo[a]pyrene	ND		0.59	0.13	ug/L		05/12/21 10:10	05/13/21 02:53	1
Benzo[b]fluoranthene	ND		0.59	0.12	ug/L		05/12/21 10:10	05/13/21 02:53	1
Benzo[g,h,i]perylene	ND		0.59	0.12	ug/L		05/12/21 10:10	05/13/21 02:53	1
Chrysene	ND		0.59	0.12	ug/L		05/12/21 10:10	05/13/21 02:53	1
Fluorene	0.20	J	0.59	0.14	ug/L		05/12/21 10:10	05/13/21 02:53	1
Naphthalene	ND		0.59	0.12	ug/L		05/12/21 10:10	05/13/21 02:53	1
Phenanthrene	ND		0.59	0.13	ug/L		05/12/21 10:10	05/13/21 02:53	1
Pyrene	ND		0.59	0.12	ug/L		05/12/21 10:10	05/13/21 02:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*69*		*44 - 102*	*05/12/21 10:10*	*05/13/21 02:53*	*1*
Nitrobenzene-d5 (Surr)	*71*		*23 - 128*	*05/12/21 10:10*	*05/13/21 02:53*	*1*
p-Terphenyl-d14 (Surr)	*77*		*31 - 113*	*05/12/21 10:10*	*05/13/21 02:53*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	1.2	J	5.0	1.0	ug/L		05/10/21 10:10	05/10/21 14:07	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/10/21 10:10	05/10/21 14:07	1

Client Sample ID: DUP-6_20210505

Lab Sample ID: 410-38735-6

Date Collected: 05/05/21 00:00
Matrix: Water
Date Received: 05/06/21 15:20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*78*		*28 - 140*	*05/10/21 10:10*	*05/10/21 14:07*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**17000**		500	300	ug/L		05/11/21 07:50	05/11/21 11:32	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*110*		*28 - 140*	*05/11/21 07:50*	*05/11/21 11:32*	*100*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0096	ug/L		05/11/21 16:30	05/12/21 09:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*104*		*46 - 136*	*05/11/21 16:30*	*05/12/21 09:44*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*115*		*46 - 136*	*05/11/21 16:30*	*05/12/21 09:44*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			05/08/21 10:17	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**37000**		500	96	ug/L		05/10/21 01:52	05/12/21 19:07	1
Iron	**19000**		200	40	ug/L		05/10/21 01:52	05/12/21 19:07	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/10/21 04:13	05/10/21 18:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**300000**		8000	8000	ug/L			05/11/21 01:41	1
Total Kjeldahl Nitrogen	**3300**		1000	500	ug/L		05/11/21 13:58	05/12/21 13:33	1
Total Carbon	**84000**		10000	5000	ug/L			05/12/21 13:22	10
Total Organic Carbon	**14000**		1000	500	ug/L			05/11/21 23:50	1
Total Inorganic Carbon	**70000**		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: S-445_20210505

Lab Sample ID: 410-38735-7

Date Collected: 05/05/21 11:35
Matrix: Water
Date Received: 05/06/21 15:20

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**49**		5.0	2.0	ug/L			05/11/21 16:48	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			05/11/21 16:48	5
1,3,5-Trimethylbenzene	**8.1**	**J**	25	1.5	ug/L			05/11/21 16:48	5
Toluene	**100**		5.0	1.0	ug/L			05/11/21 16:48	5
Xylenes, Total	**90**		30	7.0	ug/L			05/11/21 16:48	5
Methyl tert-butyl ether	ND	^c	5.0	1.0	ug/L			05/11/21 16:48	5
Benzene	**410**		5.0	1.0	ug/L			05/11/21 16:48	5
1,2,4-Trimethylbenzene	**14**	**J**	25	5.0	ug/L			05/11/21 16:48	5

Client Sample ID: S-445_20210505

Date Collected: 05/05/21 11:35
Date Received: 05/06/21 15:20

Lab Sample ID: 410-38735-7

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	**22**	**J**	25	1.0	ug/L			05/11/21 16:48	5
t-Butyl alcohol	ND	^c	250	60	ug/L			05/11/21 16:48	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*		*05/11/21 16:48*	*5*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*05/11/21 16:48*	*5*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*05/11/21 16:48*	*5*
Toluene-d8 (Surr)	*104*		*80 - 120*		*05/11/21 16:48*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.52	0.10	ug/L		05/12/21 10:10	05/13/21 03:21	1
Benzo[a]anthracene	ND		0.52	0.10	ug/L		05/12/21 10:10	05/13/21 03:21	1
Benzo[a]pyrene	ND		0.52	0.11	ug/L		05/12/21 10:10	05/13/21 03:21	1
Benzo[b]fluoranthene	ND		0.52	0.10	ug/L		05/12/21 10:10	05/13/21 03:21	1
Benzo[g,h,i]perylene	ND		0.52	0.10	ug/L		05/12/21 10:10	05/13/21 03:21	1
Chrysene	ND		0.52	0.10	ug/L		05/12/21 10:10	05/13/21 03:21	1
Fluorene	ND		0.52	0.12	ug/L		05/12/21 10:10	05/13/21 03:21	1
Naphthalene	**17**		0.52	0.10	ug/L		05/12/21 10:10	05/13/21 03:21	1
Phenanthrene	ND		0.52	0.11	ug/L		05/12/21 10:10	05/13/21 03:21	1
Pyrene	ND		0.52	0.10	ug/L		05/12/21 10:10	05/13/21 03:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*64*		*44 - 102*	*05/12/21 10:10*	*05/13/21 03:21*	*1*
Nitrobenzene-d5 (Surr)	*69*		*23 - 128*	*05/12/21 10:10*	*05/13/21 03:21*	*1*
p-Terphenyl-d14 (Surr)	*62*		*31 - 113*	*05/12/21 10:10*	*05/13/21 03:21*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**1.9**	**J**	5.0	1.0	ug/L		05/10/21 10:10	05/10/21 14:23	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/10/21 10:10	05/10/21 14:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*77*		*28 - 140*	*05/10/21 10:10*	*05/10/21 14:23*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**3300**		100	60	ug/L		05/11/21 07:50	05/11/21 11:50	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*108*		*28 - 140*	*05/11/21 07:50*	*05/11/21 11:50*	*20*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0096	ug/L		05/11/21 16:30	05/12/21 10:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*108*		*46 - 136*	*05/11/21 16:30*	*05/12/21 10:01*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*107*		*46 - 136*	*05/11/21 16:30*	*05/12/21 10:01*	*1*

Client Sample ID: S-445_20210505

Lab Sample ID: 410-38735-7

Date Collected: 05/05/21 11:35
Matrix: Water
Date Received: 05/06/21 15:20

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	3500	J FH	5000	1500	ug/L			05/08/21 10:33	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	12000		500	96	ug/L		05/10/21 01:52	05/12/21 19:17	1
Iron	3100		200	40	ug/L		05/10/21 01:52	05/12/21 19:17	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/10/21 04:13	05/10/21 18:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	460000		8000	8000	ug/L			05/11/21 02:23	1
Total Kjeldahl Nitrogen	15000		10000	5000	ug/L		05/11/21 13:58	05/12/21 14:34	10
Total Carbon	190000		10000	5000	ug/L			05/12/21 13:55	10
Total Organic Carbon	9800		5000	2500	ug/L			05/12/21 00:06	5
Total Inorganic Carbon	180000		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: S-50_20210505

Lab Sample ID: 410-38735-8

Date Collected: 05/05/21 13:00
Matrix: Water
Date Received: 05/06/21 15:20

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/11/21 14:26	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/11/21 14:26	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/11/21 14:26	1
Toluene	0.48	J	1.0	0.20	ug/L			05/11/21 14:26	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/11/21 14:26	1
Methyl tert-butyl ether	0.27	J ^c	1.0	0.20	ug/L			05/11/21 14:26	1
Benzene	2.1		1.0	0.20	ug/L			05/11/21 14:26	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/11/21 14:26	1
Isopropylbenzene	1.2	J	5.0	0.20	ug/L			05/11/21 14:26	1
t-Butyl alcohol	ND	^c	50	12	ug/L			05/11/21 14:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*		*05/11/21 14:26*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*05/11/21 14:26*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*05/11/21 14:26*	*1*
Toluene-d8 (Surr)	*105*		*80 - 120*		*05/11/21 14:26*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.60	0.12	ug/L		05/12/21 10:10	05/13/21 03:49	1
Benzo[a]anthracene	ND		0.60	0.12	ug/L		05/12/21 10:10	05/13/21 03:49	1
Benzo[a]pyrene	ND		0.60	0.13	ug/L		05/12/21 10:10	05/13/21 03:49	1
Benzo[b]fluoranthene	ND		0.60	0.12	ug/L		05/12/21 10:10	05/13/21 03:49	1
Benzo[g,h,i]perylene	ND		0.60	0.12	ug/L		05/12/21 10:10	05/13/21 03:49	1
Chrysene	ND		0.60	0.12	ug/L		05/12/21 10:10	05/13/21 03:49	1
Fluorene	ND		0.60	0.14	ug/L		05/12/21 10:10	05/13/21 03:49	1

Client Sample ID: S-50_20210505

Date Collected: 05/05/21 13:00
Date Received: 05/06/21 15:20

Lab Sample ID: 410-38735-8

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.44	J	0.60	0.12	ug/L		05/12/21 10:10	05/13/21 03:49	1
Phenanthrene	0.34	J	0.60	0.13	ug/L		05/12/21 10:10	05/13/21 03:49	1
Pyrene	0.29	J	0.60	0.12	ug/L		05/12/21 10:10	05/13/21 03:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*70*		*44 - 102*	*05/12/21 10:10*	*05/13/21 03:49*	*1*
Nitrobenzene-d5 (Surr)	*71*		*23 - 128*	*05/12/21 10:10*	*05/13/21 03:49*	*1*
p-Terphenyl-d14 (Surr)	*70*		*31 - 113*	*05/12/21 10:10*	*05/13/21 03:49*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/10/21 10:10	05/10/21 14:53	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/10/21 10:10	05/10/21 14:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*75*		*28 - 140*	*05/10/21 10:10*	*05/10/21 14:53*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	9700		250	150	ug/L		05/11/21 07:50	05/11/21 12:30	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*111*		*28 - 140*	*05/11/21 07:50*	*05/11/21 12:30*	*50*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0097	ug/L		05/11/21 16:30	05/12/21 10:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*102*		*46 - 136*	*05/11/21 16:30*	*05/12/21 10:18*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*100*		*46 - 136*	*05/11/21 16:30*	*05/12/21 10:18*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	3700	J	5000	1500	ug/L			05/08/21 11:21	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	69000		500	96	ug/L		05/10/21 01:52	05/12/21 19:20	1
Iron	92000		200	40	ug/L		05/10/21 01:52	05/12/21 19:20	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/10/21 04:13	05/10/21 18:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	290000		8000	8000	ug/L			05/11/21 02:41	1
Total Kjeldahl Nitrogen	2800		1000	500	ug/L		05/11/21 13:58	05/12/21 13:37	1
Total Carbon	89000		10000	5000	ug/L			05/12/21 14:05	10
Total Organic Carbon	14000		1000	500	ug/L			05/12/21 00:22	1
Total Inorganic Carbon	75000		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: B-150_SL_20210505

Date Collected: 05/05/21 12:30
Date Received: 05/06/21 15:20

Lab Sample ID: 410-38735-9

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**430**		100	40	ug/L			05/11/21 17:12	100
1,2-Dichloroethane	ND		100	30	ug/L			05/11/21 17:12	100
1,3,5-Trimethylbenzene	ND		500	30	ug/L			05/11/21 17:12	100
Xylenes, Total	**1900**		600	140	ug/L			05/11/21 17:12	100
Methyl tert-butyl ether	ND	^c	100	20	ug/L			05/11/21 17:12	100
1,2,4-Trimethylbenzene	ND		500	100	ug/L			05/11/21 17:12	100
Isopropylbenzene	**9000**		500	20	ug/L			05/11/21 17:12	100
t-Butyl alcohol	ND	^c	5000	1200	ug/L			05/11/21 17:12	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*84*		*80 - 120*		*05/11/21 17:12*	*100*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*05/11/21 17:12*	*100*
Dibromofluoromethane (Surr)	*93*		*80 - 120*		*05/11/21 17:12*	*100*
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/11/21 17:12*	*100*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	**60000**		1000	200	ug/L			05/11/21 17:36	1000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*80 - 120*		*05/11/21 17:36*	*1000*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*05/11/21 17:36*	*1000*
Dibromofluoromethane (Surr)	*94*		*80 - 120*		*05/11/21 17:36*	*1000*
Toluene-d8 (Surr)	*98*		*80 - 120*		*05/11/21 17:36*	*1000*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**420000**		10000	2000	ug/L			05/12/21 19:47	10000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*89*		*80 - 120*		*05/12/21 19:47*	*10000*
4-Bromofluorobenzene (Surr)	*89*		*80 - 120*		*05/12/21 19:47*	*10000*
Dibromofluoromethane (Surr)	*105*		*80 - 120*		*05/12/21 19:47*	*10000*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/12/21 19:47*	*10000*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/12/21 10:10	05/13/21 04:17	1
Benzo[a]anthracene	**0.24**	**J**	0.50	0.10	ug/L		05/12/21 10:10	05/13/21 04:17	1
Benzo[a]pyrene	**0.22**	**J**	0.50	0.11	ug/L		05/12/21 10:10	05/13/21 04:17	1
Benzo[b]fluoranthene	**0.22**	**J**	0.50	0.10	ug/L		05/12/21 10:10	05/13/21 04:17	1
Benzo[g,h,i]perylene	**0.10**	**J**	0.50	0.10	ug/L		05/12/21 10:10	05/13/21 04:17	1
Chrysene	**0.20**	**J**	0.50	0.10	ug/L		05/12/21 10:10	05/13/21 04:17	1
Fluorene	**1.2**		0.50	0.12	ug/L		05/12/21 10:10	05/13/21 04:17	1
Naphthalene	**38**		0.50	0.10	ug/L		05/12/21 10:10	05/13/21 04:17	1
Phenanthrene	**2.0**		0.50	0.11	ug/L		05/12/21 10:10	05/13/21 04:17	1
Pyrene	**0.64**		0.50	0.10	ug/L		05/12/21 10:10	05/13/21 04:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*70*		*44 - 102*	*05/12/21 10:10*	*05/13/21 04:17*	*1*
Nitrobenzene-d5 (Surr)	*68*		*23 - 128*	*05/12/21 10:10*	*05/13/21 04:17*	*1*

Client Sample ID: B-150_SL_20210505
Date Collected: 05/05/21 12:30
Date Received: 05/06/21 15:20

Lab Sample ID: 410-38735-9
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl-d14 (Surr)	*65*		*31 - 113*	*05/12/21 10:10*	*05/13/21 04:17*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**1.7**	**J**	5.0	1.0	ug/L		05/10/21 10:10	05/10/21 15:09	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/10/21 10:10	05/10/21 15:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Propene (1C)	*102*		*28 - 140*	*05/10/21 10:10*	*05/10/21 15:09*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**16000**		500	300	ug/L		05/11/21 07:50	05/11/21 12:49	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Propene (1C)	*109*		*28 - 140*	*05/11/21 07:50*	*05/11/21 12:49*	*100*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.0099	ug/L		05/11/21 16:30	05/12/21 10:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane (Surr) (1C)	*125*		*46 - 136*	*05/11/21 16:30*	*05/12/21 10:35*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*91*		*46 - 136*	*05/11/21 16:30*	*05/12/21 10:35*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**4200**	**J**	5000	1500	ug/L			05/08/21 11:37	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**53000**		500	96	ug/L		05/10/21 01:52	05/12/21 19:26	1
Iron	**22000**		200	40	ug/L		05/10/21 01:52	05/12/21 19:26	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.17**	**J**	0.52	0.073	ug/L		05/10/21 04:13	05/10/21 18:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**220000**		8000	8000	ug/L			05/11/21 01:35	1
Total Kjeldahl Nitrogen	**3500**		1000	500	ug/L		05/11/21 13:58	05/12/21 13:06	1
Total Carbon	**190000**		10000	5000	ug/L			05/12/21 14:16	10
Total Organic Carbon	**33000**		1000	500	ug/L			05/12/21 00:39	1
Total Inorganic Carbon	**160000**		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: S-443_20210505

Date Collected: 05/05/21 13:25
Date Received: 05/06/21 15:20

Lab Sample ID: 410-38735-10

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**31**		5.0	2.0	ug/L			05/11/21 18:00	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			05/11/21 18:00	5
1,3,5-Trimethylbenzene	**4.0**	**J**	25	1.5	ug/L			05/11/21 18:00	5
Toluene	**7.3**		5.0	1.0	ug/L			05/11/21 18:00	5
Xylenes, Total	**18**	**J**	30	7.0	ug/L			05/11/21 18:00	5
Methyl tert-butyl ether	**11**	**^c**	5.0	1.0	ug/L			05/11/21 18:00	5
Benzene	**130**		5.0	1.0	ug/L			05/11/21 18:00	5
1,2,4-Trimethylbenzene	**190**		25	5.0	ug/L			05/11/21 18:00	5
Isopropylbenzene	**7.3**	**J**	25	1.0	ug/L			05/11/21 18:00	5
t-Butyl alcohol	ND	^c	250	60	ug/L			05/11/21 18:00	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*		*05/11/21 18:00*	*5*
4-Bromofluorobenzene (Surr)	*90*		*80 - 120*		*05/11/21 18:00*	*5*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*05/11/21 18:00*	*5*
Toluene-d8 (Surr)	*108*		*80 - 120*		*05/11/21 18:00*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.51	0.10	ug/L		05/12/21 10:10	05/13/21 04:45	1
Benzo[a]anthracene	ND		0.51	0.10	ug/L		05/12/21 10:10	05/13/21 04:45	1
Benzo[a]pyrene	ND		0.51	0.11	ug/L		05/12/21 10:10	05/13/21 04:45	1
Benzo[b]fluoranthene	ND		0.51	0.10	ug/L		05/12/21 10:10	05/13/21 04:45	1
Benzo[g,h,i]perylene	ND		0.51	0.10	ug/L		05/12/21 10:10	05/13/21 04:45	1
Chrysene	ND		0.51	0.10	ug/L		05/12/21 10:10	05/13/21 04:45	1
Fluorene	ND		0.51	0.12	ug/L		05/12/21 10:10	05/13/21 04:45	1
Naphthalene	**6.7**		0.51	0.10	ug/L		05/12/21 10:10	05/13/21 04:45	1
Phenanthrene	ND		0.51	0.11	ug/L		05/12/21 10:10	05/13/21 04:45	1
Pyrene	ND		0.51	0.10	ug/L		05/12/21 10:10	05/13/21 04:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*64*		*44 - 102*	*05/12/21 10:10*	*05/13/21 04:45*	*1*
Nitrobenzene-d5 (Surr)	*63*		*23 - 128*	*05/12/21 10:10*	*05/13/21 04:45*	*1*
p-Terphenyl-d14 (Surr)	*66*		*31 - 113*	*05/12/21 10:10*	*05/13/21 04:45*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**1.3**	**J**	5.0	1.0	ug/L		05/10/21 10:10	05/10/21 15:29	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/10/21 10:10	05/10/21 15:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*74*		*28 - 140*	*05/10/21 10:10*	*05/10/21 15:29*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**7400**		100	60	ug/L		05/11/21 07:50	05/11/21 13:07	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*109*		*28 - 140*	*05/11/21 07:50*	*05/11/21 13:07*	*20*

Client Sample ID: S-443_20210505

Lab Sample ID: 410-38735-10

Date Collected: 05/05/21 13:25

Matrix: Water

Date Received: 05/06/21 15:20

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0095	ug/L		05/11/21 16:30	05/12/21 10:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*143*	*S1+*	*46 - 136*	*05/11/21 16:30*	*05/12/21 10:52*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*104*		*46 - 136*	*05/11/21 16:30*	*05/12/21 10:52*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**3500**	**J**	5000	1500	ug/L			05/08/21 11:54	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**87000**		500	96	ug/L		05/10/21 01:55	05/10/21 12:18	1
Iron	**41000**		200	40	ug/L		05/10/21 01:55	05/10/21 12:18	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/10/21 04:13	05/10/21 18:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**430000**		8000	8000	ug/L			05/11/21 02:49	1
Total Kjeldahl Nitrogen	**590**	**J**	1000	500	ug/L		05/11/21 13:58	05/12/21 13:48	1
Total Carbon	**88000**		10000	5000	ug/L			05/12/21 14:27	10
Total Organic Carbon	**8900**		1000	500	ug/L			05/12/21 00:55	1
Total Inorganic Carbon	**79000**		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: S-396_20210505

Lab Sample ID: 410-38735-11

Date Collected: 05/05/21 14:15

Matrix: Water

Date Received: 05/06/21 15:20

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		50	20	ug/L			05/13/21 13:27	50
1,2-Dichloroethane	ND		50	15	ug/L			05/13/21 13:27	50
1,3,5-Trimethylbenzene	ND		250	15	ug/L			05/13/21 13:27	50
Toluene	ND		50	10	ug/L			05/13/21 13:27	50
Xylenes, Total	ND		300	70	ug/L			05/13/21 13:27	50
Methyl tert-butyl ether	**730**		50	10	ug/L			05/13/21 13:27	50
Benzene	ND		50	10	ug/L			05/13/21 13:27	50
1,2,4-Trimethylbenzene	ND		250	50	ug/L			05/13/21 13:27	50
Isopropylbenzene	**22**	**J**	250	10	ug/L			05/13/21 13:27	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*		*05/13/21 13:27*	*50*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*		*05/13/21 13:27*	*50*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*05/13/21 13:27*	*50*
Toluene-d8 (Surr)	*103*		*80 - 120*		*05/13/21 13:27*	*50*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
t-Butyl alcohol	**45000**		25000	6000	ug/L			05/17/21 15:55	500

Client Sample ID: S-396_20210505

Date Collected: 05/05/21 14:15
Date Received: 05/06/21 15:20

Lab Sample ID: 410-38735-11

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*		*05/17/21 15:55*	*500*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*		*05/17/21 15:55*	*500*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*05/17/21 15:55*	*500*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/17/21 15:55*	*500*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.57	0.11	ug/L		05/12/21 10:10	05/13/21 05:13	1
Benzo[a]anthracene	ND		0.57	0.11	ug/L		05/12/21 10:10	05/13/21 05:13	1
Benzo[a]pyrene	ND		0.57	0.12	ug/L		05/12/21 10:10	05/13/21 05:13	1
Benzo[b]fluoranthene	ND		0.57	0.11	ug/L		05/12/21 10:10	05/13/21 05:13	1
Benzo[g,h,i]perylene	ND		0.57	0.11	ug/L		05/12/21 10:10	05/13/21 05:13	1
Chrysene	ND		0.57	0.11	ug/L		05/12/21 10:10	05/13/21 05:13	1
Fluorene	ND		0.57	0.14	ug/L		05/12/21 10:10	05/13/21 05:13	1
Naphthalene	**0.38**	**J**	0.57	0.11	ug/L		05/12/21 10:10	05/13/21 05:13	1
Phenanthrene	ND		0.57	0.12	ug/L		05/12/21 10:10	05/13/21 05:13	1
Pyrene	ND		0.57	0.11	ug/L		05/12/21 10:10	05/13/21 05:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*64*		*44 - 102*	*05/12/21 10:10*	*05/13/21 05:13*	*1*
Nitrobenzene-d5 (Surr)	*65*		*23 - 128*	*05/12/21 10:10*	*05/13/21 05:13*	*1*
p-Terphenyl-d14 (Surr)	*83*		*31 - 113*	*05/12/21 10:10*	*05/13/21 05:13*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**11**		5.0	1.0	ug/L		05/10/21 10:10	05/10/21 15:46	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/10/21 10:10	05/10/21 15:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*78*		*28 - 140*	*05/10/21 10:10*	*05/10/21 15:46*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**21000**		500	300	ug/L		05/11/21 07:50	05/11/21 13:25	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*112*		*28 - 140*	*05/11/21 07:50*	*05/11/21 13:25*	*100*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0095	ug/L		05/11/21 16:30	05/12/21 11:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*92*		*46 - 136*	*05/11/21 16:30*	*05/12/21 11:08*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*99*		*46 - 136*	*05/11/21 16:30*	*05/12/21 11:08*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			05/08/21 13:14	5

Client Sample ID: S-396_20210505

Lab Sample ID: 410-38735-11

Date Collected: 05/05/21 14:15

Matrix: Water

Date Received: 05/06/21 15:20

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**58000**		500	96	ug/L		05/10/21 01:55	05/10/21 12:12	1
Iron	**35000**		200	40	ug/L		05/10/21 01:55	05/10/21 12:12	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/10/21 04:13	05/10/21 18:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**400000**		8000	8000	ug/L			05/11/21 02:14	1
Total Kjeldahl Nitrogen	**860**	**J**	1000	500	ug/L		05/11/21 13:58	05/12/21 13:56	1
Total Carbon	**180000**		10000	5000	ug/L			05/12/21 14:38	10
Total Organic Carbon	**32000**	**FL**	1000	500	ug/L			05/11/21 21:41	1
Total Inorganic Carbon	**150000**		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: S-441_20210505

Lab Sample ID: 410-38735-12

Date Collected: 05/05/21 14:45

Matrix: Water

Date Received: 05/06/21 15:20

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**23**		5.0	2.0	ug/L			05/11/21 18:47	5
1,2-Dichloroethane	**2.0**	**J**	5.0	1.5	ug/L			05/11/21 18:47	5
1,3,5-Trimethylbenzene	**17**	**J**	25	1.5	ug/L			05/11/21 18:47	5
Toluene	**120**		5.0	1.0	ug/L			05/11/21 18:47	5
Xylenes, Total	**150**		30	7.0	ug/L			05/11/21 18:47	5
Methyl tert-butyl ether	**6.0**	**^c**	5.0	1.0	ug/L			05/11/21 18:47	5
Benzene	**360**		5.0	1.0	ug/L			05/11/21 18:47	5
1,2,4-Trimethylbenzene	**22**	**J**	25	5.0	ug/L			05/11/21 18:47	5
Isopropylbenzene	**19**	**J**	25	1.0	ug/L			05/11/21 18:47	5
t-Butyl alcohol	ND	^c	250	60	ug/L			05/11/21 18:47	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*80 - 120*		*05/11/21 18:47*	*5*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*05/11/21 18:47*	*5*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*05/11/21 18:47*	*5*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/11/21 18:47*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.53	0.11	ug/L		05/12/21 10:10	05/13/21 13:35	1
Benzo[a]anthracene	ND		0.53	0.11	ug/L		05/12/21 10:10	05/13/21 13:35	1
Benzo[a]pyrene	ND		0.53	0.12	ug/L		05/12/21 10:10	05/13/21 13:35	1
Benzo[b]fluoranthene	ND		0.53	0.11	ug/L		05/12/21 10:10	05/13/21 13:35	1
Benzo[g,h,i]perylene	ND		0.53	0.11	ug/L		05/12/21 10:10	05/13/21 13:35	1
Chrysene	ND		0.53	0.11	ug/L		05/12/21 10:10	05/13/21 13:35	1
Fluorene	ND		0.53	0.13	ug/L		05/12/21 10:10	05/13/21 13:35	1
Naphthalene	**4.8**		0.53	0.11	ug/L		05/12/21 10:10	05/13/21 13:35	1
Phenanthrene	ND		0.53	0.12	ug/L		05/12/21 10:10	05/13/21 13:35	1
Pyrene	ND		0.53	0.11	ug/L		05/12/21 10:10	05/13/21 13:35	1

Client Sample ID: S-441_20210505

Date Collected: 05/05/21 14:45
Date Received: 05/06/21 15:20

Lab Sample ID: 410-38735-12

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*66*		*44 - 102*	*05/12/21 10:10*	*05/13/21 13:35*	*1*
Nitrobenzene-d5 (Surr)	*67*		*23 - 128*	*05/12/21 10:10*	*05/13/21 13:35*	*1*
p-Terphenyl-d14 (Surr)	*72*		*31 - 113*	*05/12/21 10:10*	*05/13/21 13:35*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/10/21 10:10	05/10/21 16:02	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/10/21 10:10	05/10/21 16:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*87*		*28 - 140*	*05/10/21 10:10*	*05/10/21 16:02*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**16000**		250	150	ug/L		05/11/21 07:50	05/11/21 13:44	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*110*		*28 - 140*	*05/11/21 07:50*	*05/11/21 13:44*	*50*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.028	0.0094	ug/L		05/11/21 16:30	05/12/21 11:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*112*		*46 - 136*	*05/11/21 16:30*	*05/12/21 11:25*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*113*		*46 - 136*	*05/11/21 16:30*	*05/12/21 11:25*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			05/08/21 12:42	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**49000**		500	96	ug/L		05/10/21 01:52	05/12/21 19:23	1
Iron	**12000**		200	40	ug/L		05/10/21 01:52	05/12/21 19:23	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/10/21 04:13	05/10/21 18:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**270000**		8000	8000	ug/L			05/11/21 03:02	1
Total Kjeldahl Nitrogen	**630**	**J**	1000	500	ug/L		05/11/21 13:58	05/12/21 13:58	1
Total Carbon	**63000**		10000	5000	ug/L			05/12/21 15:10	10
Total Organic Carbon	**8800**		5000	2500	ug/L			05/12/21 01:11	5
Total Inorganic Carbon	**54000**		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: B-156_SL_20210505

Date Collected: 05/05/21 15:10
Date Received: 05/06/21 15:20

Lab Sample ID: 410-38735-13

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**3.8**	**J**	5.0	2.0	ug/L			05/11/21 19:11	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			05/11/21 19:11	5
1,3,5-Trimethylbenzene	**3.9**	**J**	25	1.5	ug/L			05/11/21 19:11	5
Toluene	**45**		5.0	1.0	ug/L			05/11/21 19:11	5
Xylenes, Total	**21**	**J**	30	7.0	ug/L			05/11/21 19:11	5
Methyl tert-butyl ether	ND	^c	5.0	1.0	ug/L			05/11/21 19:11	5
Benzene	**210**		5.0	1.0	ug/L			05/11/21 19:11	5
1,2,4-Trimethylbenzene	ND		25	5.0	ug/L			05/11/21 19:11	5
Isopropylbenzene	**100**		25	1.0	ug/L			05/11/21 19:11	5
t-Butyl alcohol	ND	^c	250	60	ug/L			05/11/21 19:11	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*80 - 120*		*05/11/21 19:11*	*5*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*05/11/21 19:11*	*5*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*05/11/21 19:11*	*5*
Toluene-d8 (Surr)	*103*		*80 - 120*		*05/11/21 19:11*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**0.57**		0.50	0.10	ug/L		05/12/21 17:24	05/13/21 14:31	1
Benzo[a]anthracene	**0.45**	**J**	0.50	0.10	ug/L		05/12/21 17:24	05/13/21 14:31	1
Benzo[a]pyrene	**0.30**	**J**	0.50	0.11	ug/L		05/12/21 17:24	05/13/21 14:31	1
Benzo[b]fluoranthene	**0.29**	**J**	0.50	0.10	ug/L		05/12/21 17:24	05/13/21 14:31	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/12/21 17:24	05/13/21 14:31	1
Chrysene	**0.42**	**J**	0.50	0.10	ug/L		05/12/21 17:24	05/13/21 14:31	1
Fluorene	**2.1**		0.50	0.12	ug/L		05/12/21 17:24	05/13/21 14:31	1
Naphthalene	ND		0.50	0.10	ug/L		05/12/21 17:24	05/13/21 14:31	1
Phenanthrene	ND		0.50	0.11	ug/L		05/12/21 17:24	05/13/21 14:31	1
Pyrene	**1.2**		0.50	0.10	ug/L		05/12/21 17:24	05/13/21 14:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*57*		*44 - 102*	*05/12/21 17:24*	*05/13/21 14:31*	*1*
Nitrobenzene-d5 (Surr)	*69*		*23 - 128*	*05/12/21 17:24*	*05/13/21 14:31*	*1*
p-Terphenyl-d14 (Surr)	*73*		*31 - 113*	*05/12/21 17:24*	*05/13/21 14:31*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**7.3**		5.0	1.0	ug/L		05/10/21 10:10	05/10/21 16:19	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/10/21 10:10	05/10/21 16:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*87*		*28 - 140*	*05/10/21 10:10*	*05/10/21 16:19*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**22000**		500	300	ug/L		05/11/21 07:50	05/11/21 14:02	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*113*		*28 - 140*	*05/11/21 07:50*	*05/11/21 14:02*	*100*

Client Sample ID: B-156_SL_20210505

Lab Sample ID: 410-38735-13
Matrix: Water
Date Collected: 05/05/21 15:10
Date Received: 05/06/21 15:20

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0097	ug/L		05/11/21 16:30	05/12/21 11:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*97*		*46 - 136*	*05/11/21 16:30*	*05/12/21 11:42*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*121*		*46 - 136*	*05/11/21 16:30*	*05/12/21 11:42*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			05/08/21 12:58	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**86000**		500	96	ug/L		05/10/21 01:52	05/12/21 19:13	1
Iron	**9200**		200	40	ug/L		05/10/21 01:52	05/12/21 19:13	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/10/21 04:13	05/10/21 18:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**410000**		8000	8000	ug/L			05/11/21 01:21	1
Total Kjeldahl Nitrogen	**5900**		1000	500	ug/L		05/11/21 13:58	05/12/21 14:00	1
Total Carbon	**110000**		10000	5000	ug/L			05/12/21 15:20	10
Total Organic Carbon	**17000**		2000	1000	ug/L			05/12/21 03:37	2
Total Inorganic Carbon	**93000**		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: TB_20210506

Lab Sample ID: 410-38735-14
Matrix: Water
Date Collected: 05/06/21 00:00
Date Received: 05/06/21 15:20

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		1.0	0.20	ug/L			05/11/21 11:39	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/11/21 11:39	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/11/21 11:39	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/11/21 11:39	1
Toluene	ND		1.0	0.20	ug/L			05/11/21 11:39	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/11/21 11:39	1
Methyl tert-butyl ether	ND	^c	1.0	0.20	ug/L			05/11/21 11:39	1
Benzene	ND		1.0	0.20	ug/L			05/11/21 11:39	1
Naphthalene	ND		5.0	1.0	ug/L			05/11/21 11:39	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/11/21 11:39	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/11/21 11:39	1
t-Butyl alcohol	ND	^c	50	12	ug/L			05/11/21 11:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*80 - 120*		*05/11/21 11:39*	*1*
4-Bromofluorobenzene (Surr)	*90*		*80 - 120*		*05/11/21 11:39*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*05/11/21 11:39*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/11/21 11:39*	*1*

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38735-1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-38735-1	B-165_20210505	99	107	97	101
410-38735-2	S-442_20210505	87	93	94	101
410-38735-2 - DL	S-442_20210505	90	89	105	102
410-38735-3	B-39_SL_20210505	87	96	98	99
410-38735-4	S-446_20210505	86	95	96	106
410-38735-5	S-44_20210505	86	92	95	104
410-38735-6	DUP-6_20210505	86	91	94	103
410-38735-7	S-445_20210505	88	93	96	104
410-38735-8	S-50_20210505	90	96	97	105
410-38735-9	B-150_SL_20210505	84	94	93	100
410-38735-9 - DL	B-150_SL_20210505	87	93	94	98
410-38735-9 - DL2	B-150_SL_20210505	89	89	105	101
410-38735-10	S-443_20210505	90	90	97	108
410-38735-11	S-396_20210505	99	106	96	103
410-38735-11 - DL	S-396_20210505	102	106	104	102
410-38735-12	S-441_20210505	87	91	95	102
410-38735-13	B-156_SL_20210505	87	92	95	103
410-38735-14	TB_20210506	87	90	96	101
LCS 410-124782/4	Lab Control Sample	89	95	95	100
LCS 410-125307/4	Lab Control Sample	92	93	104	103
LCS 410-125930/4	Lab Control Sample	99	109	95	107
LCS 410-126998/4	Lab Control Sample	101	108	96	109
LCSD 410-124782/5	Lab Control Sample Dup	90	95	96	103
LCSD 410-125307/5	Lab Control Sample Dup	91	95	102	100
LCSD 410-125930/5	Lab Control Sample Dup	100	111	96	105
LCSD 410-126998/5	Lab Control Sample Dup	103	107	98	103
MB 410-124782/6	Method Blank	91	92	98	101
MB 410-125307/6	Method Blank	92	89	103	101
MB 410-125930/6	Method Blank	98	102	99	102
MB 410-126998/6	Method Blank	99	105	96	101

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(44-102)	(23-128)	(31-113)
410-38735-1	B-165_20210505	65	64	61
410-38735-2	S-442_20210505	64	67	77
410-38735-3	B-39_SL_20210505	63	68	75
410-38735-4	S-446_20210505	67	67	66
410-38735-5	S-44_20210505	67	69	77
410-38735-6	DUP-6_20210505	69	71	77
410-38735-7	S-445_20210505	64	69	62

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38735-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	FBP (44-102)	NBZ (23-128)	TPHd14 (31-113)
410-38735-8	S-50_20210505	70	71	70
410-38735-9	B-150_SL_20210505	70	68	65
410-38735-10	S-443_20210505	64	63	66
410-38735-11	S-396_20210505	64	65	83
410-38735-12	S-441_20210505	66	67	72
410-38735-13	B-156_SL_20210505	57	69	73
LCS 410-125324/2-A	Lab Control Sample	71	73	85
LCS 410-125592/2-A	Lab Control Sample	65	71	87
MB 410-125324/1-A	Method Blank	71	76	96
MB 410-125592/1-A	Method Blank	62	71	85

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	Propene1 (28-140)
410-38735-1	B-165_20210505	73
410-38735-1 - DL	B-165_20210505	103
410-38735-2	S-442_20210505	72
410-38735-2 - DL	S-442_20210505	102
410-38735-3	B-39_SL_20210505	74
410-38735-3 - DL	B-39_SL_20210505	105
410-38735-4	S-446_20210505	83
410-38735-4 - DL	S-446_20210505	106
410-38735-5	S-44_20210505	76
410-38735-5 - DL	S-44_20210505	108
410-38735-6	DUP-6_20210505	78
410-38735-6 - DL	DUP-6_20210505	110
410-38735-7	S-445_20210505	77
410-38735-7 - DL	S-445_20210505	108
410-38735-8	S-50_20210505	75
410-38735-8 - DL	S-50_20210505	111
410-38735-9	B-150_SL_20210505	102
410-38735-9 - DL	B-150_SL_20210505	109
410-38735-10	S-443_20210505	74
410-38735-10 - DL	S-443_20210505	109
410-38735-11	S-396_20210505	78
410-38735-11 - DL	S-396_20210505	112
410-38735-12	S-441_20210505	87
410-38735-12 - DL	S-441_20210505	110
410-38735-13	B-156_SL_20210505	87
410-38735-13 - DL	B-156_SL_20210505	113
LCS 410-124366/2-A	Lab Control Sample	100
LCS 410-124773/2-A	Lab Control Sample	106
LCSD 410-124366/3-A	Lab Control Sample Dup	96

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38735-1

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	Propene1 (28-140)						
LCSD 410-124773/3-A	Lab Control Sample Dup	107						
MB 410-124366/1-A	Method Blank	91						
MB 410-124773/1-A	Method Blank	110						

Surrogate Legend

Propene = Propene

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	1122TCA1 (46-136)	1122TCA2 (46-136)					
410-38735-1	B-165_20210505	116	126					
410-38735-2	S-442_20210505	107	99					
410-38735-2 MS	S-442_20210505	101	92					
410-38735-3	B-39_SL_20210505	102	99					
410-38735-3 DU	B-39_SL_20210505	90	97					
410-38735-4	S-446_20210505	113	114					
410-38735-5	S-44_20210505	113	121					
410-38735-6	DUP-6_20210505	104	115					
410-38735-7	S-445_20210505	108	107					
410-38735-8	S-50_20210505	102	100					
410-38735-9	B-150_SL_20210505	125	91					
410-38735-10	S-443_20210505	143 S1+	104					
410-38735-11	S-396_20210505	92	99					
410-38735-12	S-441_20210505	112	113					
410-38735-13	B-156_SL_20210505	97	121					
LCS 410-125045/2-A	Lab Control Sample	114	116					
LCS 410-125048/2-A	Lab Control Sample	92	95					
LCSD 410-125045/3-A	Lab Control Sample Dup	115	115					
LCSD 410-125048/3-A	Lab Control Sample Dup	88	93					
MB 410-125045/1-A	Method Blank	111	113					
MB 410-125048/1-A	Method Blank	93	93					

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-124782/6
Matrix: Water
Analysis Batch: 124782

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		1.0	0.20	ug/L			05/11/21 10:51	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/11/21 10:51	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/11/21 10:51	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/11/21 10:51	1
Toluene	ND		1.0	0.20	ug/L			05/11/21 10:51	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/11/21 10:51	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/11/21 10:51	1
Benzene	ND		1.0	0.20	ug/L			05/11/21 10:51	1
Naphthalene	ND		5.0	1.0	ug/L			05/11/21 10:51	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/11/21 10:51	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/11/21 10:51	1
t-Butyl alcohol	ND		50	12	ug/L			05/11/21 10:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*80 - 120*		*05/11/21 10:51*	*1*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*05/11/21 10:51*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*05/11/21 10:51*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/11/21 10:51*	*1*

Lab Sample ID: LCS 410-124782/4
Matrix: Water
Analysis Batch: 124782

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylene Dibromide	20.0	21.2		ug/L		106	77 - 120
Ethylbenzene	20.0	21.0		ug/L		105	80 - 120
1,2-Dichloroethane	20.0	18.0		ug/L		90	73 - 124
1,3,5-Trimethylbenzene	20.0	19.5		ug/L		97	75 - 120
Toluene	20.0	21.2		ug/L		106	80 - 120
Xylenes, Total	60.0	63.0		ug/L		105	80 - 120
Methyl tert-butyl ether	20.0	16.6		ug/L		83	69 - 122
Benzene	20.0	21.4		ug/L		107	80 - 120
Naphthalene	20.0	19.2		ug/L		96	53 - 124
1,2,4-Trimethylbenzene	20.0	19.2		ug/L		96	75 - 120
Isopropylbenzene	20.0	20.2		ug/L		101	80 - 120
t-Butyl alcohol	200	213		ug/L		107	60 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*89*		*80 - 120*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-124782/5
Matrix: Water
Analysis Batch: 124782

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide			20.0	23.6		ug/L		118	77 - 120	10	30
Ethylbenzene			20.0	23.0		ug/L		115	80 - 120	9	30
1,2-Dichloroethane			20.0	19.6		ug/L		98	73 - 124	9	30
1,3,5-Trimethylbenzene			20.0	20.8		ug/L		104	75 - 120	7	30
Toluene			20.0	23.7		ug/L		119	80 - 120	11	30
Xylenes, Total			60.0	69.7		ug/L		116	80 - 120	10	30
Methyl tert-butyl ether			20.0	18.8		ug/L		94	69 - 122	13	30
Benzene			20.0	23.1		ug/L		116	80 - 120	8	30
Naphthalene			20.0	20.7		ug/L		103	53 - 124	7	30
1,2,4-Trimethylbenzene			20.0	20.8		ug/L		104	75 - 120	8	30
Isopropylbenzene			20.0	21.7		ug/L		109	80 - 120	7	30
t-Butyl alcohol			200	235		ug/L		117	60 - 130	10	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*80 - 120*
Toluene-d8 (Surr)	*103*		*80 - 120*

Lab Sample ID: MB 410-125307/6
Matrix: Water
Analysis Batch: 125307

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/12/21 10:25	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/12/21 10:25	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/12/21 10:25	1
Toluene	ND		1.0	0.20	ug/L			05/12/21 10:25	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/12/21 10:25	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/12/21 10:25	1
Benzene	ND		1.0	0.20	ug/L			05/12/21 10:25	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/12/21 10:25	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/12/21 10:25	1
t-Butyl alcohol	ND		50	12	ug/L			05/12/21 10:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*		*05/12/21 10:25*	*1*
4-Bromofluorobenzene (Surr)	*89*		*80 - 120*		*05/12/21 10:25*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*05/12/21 10:25*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/12/21 10:25*	*1*

Lab Sample ID: LCS 410-125307/4
Matrix: Water
Analysis Batch: 125307

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylbenzene			20.0	18.1		ug/L		90	80 - 120		
1,2-Dichloroethane			20.0	15.9		ug/L		79	73 - 124		

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-125307/4
Matrix: Water
Analysis Batch: 125307

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3,5-Trimethylbenzene	20.0	17.3		ug/L		86	75 - 120
Toluene	20.0	18.3		ug/L		91	80 - 120
Xylenes, Total	60.0	54.1		ug/L		90	80 - 120
Methyl tert-butyl ether	20.0	15.4		ug/L		77	69 - 122
Benzene	20.0	18.0		ug/L		90	80 - 120
1,2,4-Trimethylbenzene	20.0	17.2		ug/L		86	75 - 120
Isopropylbenzene	20.0	18.0		ug/L		90	80 - 120
t-Butyl alcohol	200	179		ug/L		89	60 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*
Dibromofluoromethane (Surr)	*104*		*80 - 120*
Toluene-d8 (Surr)	*103*		*80 - 120*

Lab Sample ID: LCSD 410-125307/5
Matrix: Water
Analysis Batch: 125307

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	20.0	17.7		ug/L		88	80 - 120	2	30
1,2-Dichloroethane	20.0	15.6		ug/L		78	73 - 124	2	30
1,3,5-Trimethylbenzene	20.0	17.1		ug/L		85	75 - 120	1	30
Toluene	20.0	17.4		ug/L		87	80 - 120	5	30
Xylenes, Total	60.0	53.8		ug/L		90	80 - 120	1	30
Methyl tert-butyl ether	20.0	15.4		ug/L		77	69 - 122	0	30
Benzene	20.0	17.5		ug/L		87	80 - 120	3	30
1,2,4-Trimethylbenzene	20.0	17.1		ug/L		86	75 - 120	1	30
Isopropylbenzene	20.0	17.9		ug/L		89	80 - 120	1	30
t-Butyl alcohol	200	178		ug/L		89	60 - 130	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*91*		*80 - 120*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*
Dibromofluoromethane (Surr)	*102*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Lab Sample ID: MB 410-125930/6
Matrix: Water
Analysis Batch: 125930

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/13/21 11:14	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/13/21 11:14	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/13/21 11:14	1
Toluene	ND		1.0	0.20	ug/L			05/13/21 11:14	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/13/21 11:14	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/13/21 11:14	1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-125930/6
Matrix: Water
Analysis Batch: 125930

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.20	ug/L			05/13/21 11:14	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/13/21 11:14	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/13/21 11:14	1
t-Butyl alcohol	ND		50	12	ug/L			05/13/21 11:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 120*		*05/13/21 11:14*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*05/13/21 11:14*	*1*
Dibromofluoromethane (Surr)	*99*		*80 - 120*		*05/13/21 11:14*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/13/21 11:14*	*1*

Lab Sample ID: LCS 410-125930/4
Matrix: Water
Analysis Batch: 125930

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylbenzene			20.0	18.4		ug/L		92	80 - 120		
1,2-Dichloroethane			20.0	16.4		ug/L		82	73 - 124		
1,3,5-Trimethylbenzene			20.0	16.8		ug/L		84	75 - 120		
Toluene			20.0	18.9		ug/L		94	80 - 120		
Xylenes, Total			60.0	52.6		ug/L		88	80 - 120		
Methyl tert-butyl ether			20.0	17.4		ug/L		87	69 - 122		
Benzene			20.0	19.1		ug/L		96	80 - 120		
1,2,4-Trimethylbenzene			20.0	16.7		ug/L		83	75 - 120		
Isopropylbenzene			20.0	17.1		ug/L		86	80 - 120		
t-Butyl alcohol			200	174		ug/L		87	60 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*
4-Bromofluorobenzene (Surr)	*109*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*80 - 120*
Toluene-d8 (Surr)	*107*		*80 - 120*

Lab Sample ID: LCSD 410-125930/5
Matrix: Water
Analysis Batch: 125930

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene			20.0	17.9		ug/L		90	80 - 120	2	30
1,2-Dichloroethane			20.0	15.7		ug/L		78	73 - 124	4	30
1,3,5-Trimethylbenzene			20.0	15.3		ug/L		77	75 - 120	9	30
Toluene			20.0	18.4		ug/L		92	80 - 120	3	30
Xylenes, Total			60.0	51.4		ug/L		86	80 - 120	2	30
Methyl tert-butyl ether			20.0	16.9		ug/L		84	69 - 122	3	30
Benzene			20.0	18.4		ug/L		92	80 - 120	4	30
1,2,4-Trimethylbenzene			20.0	15.8		ug/L		79	75 - 120	5	30
Isopropylbenzene			20.0	16.5		ug/L		82	80 - 120	4	30
t-Butyl alcohol			200	162		ug/L		81	60 - 130	7	30

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-125930/5
Matrix: Water
Analysis Batch: 125930

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*
4-Bromofluorobenzene (Surr)	*111*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*80 - 120*
Toluene-d8 (Surr)	*105*		*80 - 120*

Lab Sample ID: MB 410-126998/6
Matrix: Water
Analysis Batch: 126998

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/17/21 11:40	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/17/21 11:40	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/17/21 11:40	1
Toluene	ND		1.0	0.20	ug/L			05/17/21 11:40	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/17/21 11:40	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/17/21 11:40	1
Benzene	ND		1.0	0.20	ug/L			05/17/21 11:40	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/17/21 11:40	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/17/21 11:40	1
t-Butyl alcohol	ND		50	12	ug/L			05/17/21 11:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*		*05/17/21 11:40*	*1*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*		*05/17/21 11:40*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*05/17/21 11:40*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/17/21 11:40*	*1*

Lab Sample ID: LCS 410-126998/4
Matrix: Water
Analysis Batch: 126998

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	20.0	20.4		ug/L		102	80 - 120
1,2-Dichloroethane	20.0	17.6		ug/L		88	73 - 124
1,3,5-Trimethylbenzene	20.0	18.9		ug/L		94	75 - 120
Toluene	20.0	22.2		ug/L		111	80 - 120
Xylenes, Total	60.0	57.2		ug/L		95	80 - 120
Methyl tert-butyl ether	20.0	19.7		ug/L		98	69 - 122
Benzene	20.0	21.2		ug/L		106	80 - 120
1,2,4-Trimethylbenzene	20.0	18.8		ug/L		94	75 - 120
Isopropylbenzene	20.0	18.7		ug/L		93	80 - 120
t-Butyl alcohol	200	181		ug/L		90	60 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*
4-Bromofluorobenzene (Surr)	*108*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*80 - 120*
Toluene-d8 (Surr)	*109*		*80 - 120*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: LCSD 410-126998/5
Matrix: Water
Analysis Batch: 126998

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene			20.0	19.0		ug/L		95	80 - 120	7	30
1,2-Dichloroethane			20.0	17.7		ug/L		88	73 - 124	1	30
1,3,5-Trimethylbenzene			20.0	17.9		ug/L		90	75 - 120	5	30
Toluene			20.0	19.8		ug/L		99	80 - 120	11	30
Xylenes, Total			60.0	54.4		ug/L		91	80 - 120	5	30
Methyl tert-butyl ether			20.0	17.7		ug/L		88	69 - 122	11	30
Benzene			20.0	20.6		ug/L		103	80 - 120	3	30
1,2,4-Trimethylbenzene			20.0	17.7		ug/L		88	75 - 120	6	30
Isopropylbenzene			20.0	17.7		ug/L		88	80 - 120	6	30
t-Butyl alcohol			200	177		ug/L		89	60 - 130	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*80 - 120*
4-Bromofluorobenzene (Surr)	*107*		*80 - 120*
Dibromofluoromethane (Surr)	*98*		*80 - 120*
Toluene-d8 (Surr)	*103*		*80 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-125324/1-A
Matrix: Water
Analysis Batch: 125647

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 125324

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/12/21 10:10	05/12/21 18:28	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/12/21 10:10	05/12/21 18:28	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/12/21 10:10	05/12/21 18:28	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/12/21 10:10	05/12/21 18:28	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/12/21 10:10	05/12/21 18:28	1
Chrysene	ND		0.50	0.10	ug/L		05/12/21 10:10	05/12/21 18:28	1
Fluorene	ND		0.50	0.12	ug/L		05/12/21 10:10	05/12/21 18:28	1
Naphthalene	ND		0.50	0.10	ug/L		05/12/21 10:10	05/12/21 18:28	1
Phenanthrene	ND		0.50	0.11	ug/L		05/12/21 10:10	05/12/21 18:28	1
Pyrene	ND		0.50	0.10	ug/L		05/12/21 10:10	05/12/21 18:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*71*		*44 - 102*	*05/12/21 10:10*	*05/12/21 18:28*	*1*
Nitrobenzene-d5 (Surr)	*76*		*23 - 128*	*05/12/21 10:10*	*05/12/21 18:28*	*1*
p-Terphenyl-d14 (Surr)	*96*		*31 - 113*	*05/12/21 10:10*	*05/12/21 18:28*	*1*

Lab Sample ID: LCS 410-125324/2-A
Matrix: Water
Analysis Batch: 125647

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 125324

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Anthracene			50.0	45.4		ug/L		91	61 - 117		
Benzo[a]anthracene			50.0	44.2		ug/L		88	61 - 126		
Benzo[a]pyrene			50.0	50.8		ug/L		102	60 - 116		

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-125324/2-A
Matrix: Water
Analysis Batch: 125647

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 125324

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[b]fluoranthene	50.0	43.6		ug/L		87	61 - 119
Benzo[g,h,i]perylene	50.0	49.8		ug/L		100	54 - 120
Chrysene	50.0	45.4		ug/L		91	65 - 121
Fluorene	50.0	42.7		ug/L		85	56 - 115
Naphthalene	50.0	38.6		ug/L		77	51 - 102
Phenanthrene	50.0	44.3		ug/L		89	65 - 113
Pyrene	50.0	45.3		ug/L		91	65 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*71*		*44 - 102*
Nitrobenzene-d5 (Surr)	*73*		*23 - 128*
p-Terphenyl-d14 (Surr)	*85*		*31 - 113*

Lab Sample ID: MB 410-125592/1-A
Matrix: Water
Analysis Batch: 125887

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 125592

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/12/21 17:24	05/13/21 12:11	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/12/21 17:24	05/13/21 12:11	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/12/21 17:24	05/13/21 12:11	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/12/21 17:24	05/13/21 12:11	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/12/21 17:24	05/13/21 12:11	1
Chrysene	ND		0.50	0.10	ug/L		05/12/21 17:24	05/13/21 12:11	1
Fluorene	ND		0.50	0.12	ug/L		05/12/21 17:24	05/13/21 12:11	1
Naphthalene	ND		0.50	0.10	ug/L		05/12/21 17:24	05/13/21 12:11	1
Phenanthrene	ND		0.50	0.11	ug/L		05/12/21 17:24	05/13/21 12:11	1
Pyrene	ND		0.50	0.10	ug/L		05/12/21 17:24	05/13/21 12:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*62*		*44 - 102*	*05/12/21 17:24*	*05/13/21 12:11*	*1*
Nitrobenzene-d5 (Surr)	*71*		*23 - 128*	*05/12/21 17:24*	*05/13/21 12:11*	*1*
p-Terphenyl-d14 (Surr)	*85*		*31 - 113*	*05/12/21 17:24*	*05/13/21 12:11*	*1*

Lab Sample ID: LCS 410-125592/2-A
Matrix: Water
Analysis Batch: 125887

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 125592

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.0	44.6		ug/L		89	61 - 117
Benzo[a]anthracene	50.0	45.1		ug/L		90	61 - 126
Benzo[a]pyrene	50.0	51.9		ug/L		104	60 - 116
Benzo[b]fluoranthene	50.0	44.1		ug/L		88	61 - 119
Benzo[g,h,i]perylene	50.0	48.2		ug/L		96	54 - 120
Chrysene	50.0	45.9		ug/L		92	65 - 121
Fluorene	50.0	42.4		ug/L		85	56 - 115
Naphthalene	50.0	35.4		ug/L		71	51 - 102
Phenanthrene	50.0	43.0		ug/L		86	65 - 113

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-125592/2-A
Matrix: Water
Analysis Batch: 125887

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 125592

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Pyrene			50.0	45.3		ug/L		91	65 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*65*		*44 - 102*
Nitrobenzene-d5 (Surr)	*71*		*23 - 128*
p-Terphenyl-d14 (Surr)	*87*		*31 - 113*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-124366/1-A
Matrix: Water
Analysis Batch: 124380

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 124366

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/10/21 10:10	05/10/21 11:55	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/10/21 10:10	05/10/21 11:55	1
Methane (1C)	ND		5.0	3.0	ug/L		05/10/21 10:10	05/10/21 11:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*91*		*28 - 140*	*05/10/21 10:10*	*05/10/21 11:55*	*1*

Lab Sample ID: LCS 410-124366/2-A
Matrix: Water
Analysis Batch: 124380

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 124366

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	59.8		ug/L		101	85 - 115		
Ethene (1C)			60.4	60.8		ug/L		101	83 - 115		
Methane (1C)			59.4	57.6		ug/L		97	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*100*		*28 - 140*

Lab Sample ID: LCSD 410-124366/3-A
Matrix: Water
Analysis Batch: 124380

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 124366

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	57.4		ug/L		97	85 - 115	4	20
Ethene (1C)			60.4	57.6		ug/L		95	83 - 115	5	20
Methane (1C)			59.4	54.3		ug/L		91	85 - 115	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*96*		*28 - 140*

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: MB 410-124773/1-A
Matrix: Water
Analysis Batch: 124812

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 124773

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/11/21 07:50	05/11/21 09:01	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/11/21 07:50	05/11/21 09:01	1
Methane (1C)	ND		5.0	3.0	ug/L		05/11/21 07:50	05/11/21 09:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*110*		*28 - 140*	*05/11/21 07:50*	*05/11/21 09:01*	*1*

Lab Sample ID: LCS 410-124773/2-A
Matrix: Water
Analysis Batch: 124812

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 124773

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	60.6		ug/L		102	85 - 115		
Ethene (1C)			60.4	61.0		ug/L		101	83 - 115		
Methane (1C)			59.4	62.8		ug/L		106	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*106*		*28 - 140*

Lab Sample ID: LCSD 410-124773/3-A
Matrix: Water
Analysis Batch: 124812

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 124773

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	60.9		ug/L		102	85 - 115	1	20
Ethene (1C)			60.4	61.2		ug/L		101	83 - 115	0	20
Methane (1C)			59.4	63.0		ug/L		106	85 - 115	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*107*		*28 - 140*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-125045/1-A
Matrix: Water
Analysis Batch: 125276

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 125045

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		05/11/21 16:00	05/12/21 07:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*111*		*46 - 136*	*05/11/21 16:00*	*05/12/21 07:08*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*113*		*46 - 136*	*05/11/21 16:00*	*05/12/21 07:08*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: LCS 410-125045/2-A
Matrix: Water
Analysis Batch: 125276

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 125045

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.194	*+	ug/L		152	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*114*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*116*		*46 - 136*

Lab Sample ID: LCSD 410-125045/3-A
Matrix: Water
Analysis Batch: 125276

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 125045

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.193	*+	ug/L		150	60 - 140	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*115*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*115*		*46 - 136*

Lab Sample ID: MB 410-125048/1-A
Matrix: Water
Analysis Batch: 125274

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 125048

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		05/11/21 16:30	05/12/21 07:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*93*		*46 - 136*	*05/11/21 16:30*	*05/12/21 07:11*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*93*		*46 - 136*	*05/11/21 16:30*	*05/12/21 07:11*	*1*

Lab Sample ID: LCS 410-125048/2-A
Matrix: Water
Analysis Batch: 125274

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 125048

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.167		ug/L		130	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*92*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*95*		*46 - 136*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: LCSD 410-125048/3-A
Matrix: Water
Analysis Batch: 125274

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 125048

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.168		ug/L		131	60 - 140	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*88*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*93*		*46 - 136*

Lab Sample ID: 410-38735-2 MS
Matrix: Water
Analysis Batch: 125274

Client Sample ID: S-442_20210505
Prep Type: Total/NA
Prep Batch: 125048

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylene Dibromide (1C)	ND		0.125	0.165		ug/L		131	60 - 140

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*101*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*92*		*46 - 136*

Lab Sample ID: 410-38735-3 DU
Matrix: Water
Analysis Batch: 125274

Client Sample ID: B-39_SL_20210505
Prep Type: Total/NA
Prep Batch: 125048

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ethylene Dibromide (1C)	ND		ND		ug/L		NC	30

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*90*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*97*		*46 - 136*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 410-123989/4
Matrix: Water
Analysis Batch: 123989

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1000	300	ug/L			05/08/21 05:51	1

Lab Sample ID: LCS 410-123989/3
Matrix: Water
Analysis Batch: 123989

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate			7500	7870		ug/L		105	90 - 110

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 410-38735-7 MS
Matrix: Water
Analysis Batch: 123989

Client Sample ID: S-445_20210505
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	3500	J FH	25000	32500	FH	ug/L		116	90 - 110

Lab Sample ID: 410-38735-7 DU
Matrix: Water
Analysis Batch: 123989

Client Sample ID: S-445_20210505
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfate	3500	J FH	3540	J	ug/L		1	15

Lab Sample ID: MB 410-124500/4
Matrix: Water
Analysis Batch: 124500

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1000	300	ug/L			05/10/21 11:09	1

Lab Sample ID: LCS 410-124500/3
Matrix: Water
Analysis Batch: 124500

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	7500	7910		ug/L		105	90 - 110

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-124197/1-A
Matrix: Water
Analysis Batch: 125718

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 124197

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		500	96	ug/L		05/10/21 01:52	05/12/21 17:46	1
Iron	ND		200	40	ug/L		05/10/21 01:52	05/12/21 17:46	1

Lab Sample ID: LCS 410-124197/2-A
Matrix: Water
Analysis Batch: 125718

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 124197

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	400	387	J	ug/L		97	80 - 120
Iron	400	380		ug/L		95	80 - 120

Lab Sample ID: 410-38735-3 MS
Matrix: Water
Analysis Batch: 125718

Client Sample ID: B-39_SL_20210505
Prep Type: Total Recoverable
Prep Batch: 124197

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	120000		400	122000	4	ug/L		-21	75 - 125
Iron	4600		400	4940	4	ug/L		87	75 - 125

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 410-38735-3 MSD
Matrix: Water
Analysis Batch: 125718

Client Sample ID: B-39_SL_20210505
Prep Type: Total Recoverable
Prep Batch: 124197

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	120000		400	122000	4	ug/L		8	75 - 125	0	20
Iron	4600		400	5030	4	ug/L		109	75 - 125	2	20

Lab Sample ID: 410-38735-3 DU
Matrix: Water
Analysis Batch: 125718

Client Sample ID: B-39_SL_20210505
Prep Type: Total Recoverable
Prep Batch: 124197

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Calcium	120000		120000		ug/L		2	20
Iron	4600		4550		ug/L		0.9	20

Lab Sample ID: MB 410-124198/1-A
Matrix: Water
Analysis Batch: 124498

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 124198

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		500	96	ug/L		05/10/21 01:55	05/10/21 12:06	1
Iron	ND		200	40	ug/L		05/10/21 01:55	05/10/21 12:06	1

Lab Sample ID: LCS 410-124198/2-A
Matrix: Water
Analysis Batch: 124498

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 124198

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	400	409	J	ug/L		102	80 - 120
Iron	400	379		ug/L		95	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 410-124208/1-A
Matrix: Water
Analysis Batch: 124606

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 124208

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/10/21 04:13	05/10/21 17:32	1

Lab Sample ID: LCS 410-124208/2-A
Matrix: Water
Analysis Batch: 124606

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 124208

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	30.0	31.2		ug/L		104	90 - 115

Lab Sample ID: 410-38735-3 MS
Matrix: Water
Analysis Batch: 124606

Client Sample ID: B-39_SL_20210505
Prep Type: Dissolved
Prep Batch: 124208

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.40	J	30.0	31.8		ug/L		105	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 410-38735-3 MSD
Matrix: Water
Analysis Batch: 124606

Client Sample ID: B-39_SL_20210505
Prep Type: Dissolved
Prep Batch: 124208

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	0.40	J	30.0	31.4		ug/L		103	75 - 125	1	20

Lab Sample ID: 410-38735-3 DU
Matrix: Water
Analysis Batch: 124606

Client Sample ID: B-39_SL_20210505
Prep Type: Dissolved
Prep Batch: 124208

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	0.40	J	0.437	J	ug/L		8	20

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 410-125033/59
Matrix: Water
Analysis Batch: 125033

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8000	8000	ug/L			05/11/21 00:10	1

Lab Sample ID: LCS 410-125033/60
Matrix: Water
Analysis Batch: 125033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	189000	185000		ug/L		98	82 - 106

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 410-125016/2-A
Matrix: Water
Analysis Batch: 125593

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 125016

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		1000	500	ug/L		05/11/21 13:58	05/12/21 13:04	1

Lab Sample ID: LCS 410-125016/1-A
Matrix: Water
Analysis Batch: 125593

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 125016

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	4000	4400		ug/L		110	90 - 110

Lab Sample ID: 410-38735-9 MS
Matrix: Water
Analysis Batch: 125593

Client Sample ID: B-150_SL_20210505
Prep Type: Total/NA
Prep Batch: 125016

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	3500		5000	8960		ug/L		110	90 - 110

Method: 351.2 - Nitrogen, Total Kjeldahl (Continued)

Lab Sample ID: 410-38735-9 DU
Matrix: Water
Analysis Batch: 125593

Client Sample ID: B-150_SL_20210505
Prep Type: Total/NA
Prep Batch: 125016

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Kjeldahl Nitrogen	3500		3510		ug/L		2	20

Method: 5310 B-2011 - Carbon, Total and Total Inorganic

Lab Sample ID: MB 410-125988/5
Matrix: Water
Analysis Batch: 125988

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Carbon	ND		1000	500	ug/L			05/12/21 11:56	1

Lab Sample ID: LCS 410-125988/4
Matrix: Water
Analysis Batch: 125988

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Carbon	25000	26500		ug/L		106	91 - 115

Lab Sample ID: 410-38735-1 MS
Matrix: Water
Analysis Batch: 125988

Client Sample ID: B-165_20210505
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Carbon	37000		100000	137000		ug/L		100	91 - 115

Lab Sample ID: 410-38735-11 MS
Matrix: Water
Analysis Batch: 125988

Client Sample ID: S-396_20210505
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Carbon	180000		100000	282000		ug/L		97	91 - 115

Lab Sample ID: 410-38735-1 DU
Matrix: Water
Analysis Batch: 125988

Client Sample ID: B-165_20210505
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Carbon	37000		41400		ug/L		12	20

Lab Sample ID: 410-38735-11 DU
Matrix: Water
Analysis Batch: 125988

Client Sample ID: S-396_20210505
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Carbon	180000		173000		ug/L		7	20

Method: 5310C-2011 - Total Organic Carbon/Persulfate - Ultrav

Lab Sample ID: MB 410-125613/37
Matrix: Water
Analysis Batch: 125613

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	500	ug/L			05/12/21 02:16	1

Lab Sample ID: MB 410-125613/5
Matrix: Water
Analysis Batch: 125613

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	500	ug/L			05/11/21 17:37	1

Lab Sample ID: LCS 410-125613/36
Matrix: Water
Analysis Batch: 125613

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	25000	24700		ug/L		99	91 - 113

Lab Sample ID: LCS 410-125613/4
Matrix: Water
Analysis Batch: 125613

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	25000	24800		ug/L		99	91 - 113

Lab Sample ID: 410-38735-11 MS
Matrix: Water
Analysis Batch: 125613

Client Sample ID: S-396_20210505
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	32000	FL	10000	39700	FL	ug/L		73	91 - 113

Lab Sample ID: 410-38735-11 DU
Matrix: Water
Analysis Batch: 125613

Client Sample ID: S-396_20210505
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon	32000	FL	34500	F3	ug/L		6	3

Lab Sample ID: MB 410-125994/25
Matrix: Water
Analysis Batch: 125994

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	500	ug/L			05/13/21 00:43	1

Lab Sample ID: LCS 410-125994/24
Matrix: Water
Analysis Batch: 125994

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	25000	24700		ug/L		99	91 - 113

GC/MS VOA

Analysis Batch: 124782

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-2	S-442_20210505	Total/NA	Water	8260C/UST	
410-38735-3	B-39_SL_20210505	Total/NA	Water	8260C/UST	
410-38735-4	S-446_20210505	Total/NA	Water	8260C/UST	
410-38735-5	S-44_20210505	Total/NA	Water	8260C/UST	
410-38735-6	DUP-6_20210505	Total/NA	Water	8260C/UST	
410-38735-7	S-445_20210505	Total/NA	Water	8260C/UST	
410-38735-8	S-50_20210505	Total/NA	Water	8260C/UST	
410-38735-9	B-150_SL_20210505	Total/NA	Water	8260C/UST	
410-38735-9 - DL	B-150_SL_20210505	Total/NA	Water	8260C/UST	
410-38735-10	S-443_20210505	Total/NA	Water	8260C/UST	
410-38735-12	S-441_20210505	Total/NA	Water	8260C/UST	
410-38735-13	B-156_SL_20210505	Total/NA	Water	8260C/UST	
410-38735-14	TB_20210506	Total/NA	Water	8260C/UST	
MB 410-124782/6	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-124782/4	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-124782/5	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

Analysis Batch: 125307

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-2 - DL	S-442_20210505	Total/NA	Water	8260C/UST	
410-38735-9 - DL2	B-150_SL_20210505	Total/NA	Water	8260C/UST	
MB 410-125307/6	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-125307/4	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-125307/5	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

Analysis Batch: 125930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-1	B-165_20210505	Total/NA	Water	8260C/UST	
410-38735-11	S-396_20210505	Total/NA	Water	8260C/UST	
MB 410-125930/6	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-125930/4	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-125930/5	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

Analysis Batch: 126998

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-11 - DL	S-396_20210505	Total/NA	Water	8260C/UST	
MB 410-126998/6	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-126998/4	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-126998/5	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

GC/MS Semi VOA

Prep Batch: 125324

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-1	B-165_20210505	Total/NA	Water	3510C	
410-38735-2	S-442_20210505	Total/NA	Water	3510C	
410-38735-3	B-39_SL_20210505	Total/NA	Water	3510C	
410-38735-4	S-446_20210505	Total/NA	Water	3510C	
410-38735-5	S-44_20210505	Total/NA	Water	3510C	
410-38735-6	DUP-6_20210505	Total/NA	Water	3510C	
410-38735-7	S-445_20210505	Total/NA	Water	3510C	

GC/MS Semi VOA (Continued)

Prep Batch: 125324 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-8	S-50_20210505	Total/NA	Water	3510C	
410-38735-9	B-150_SL_20210505	Total/NA	Water	3510C	
410-38735-10	S-443_20210505	Total/NA	Water	3510C	
410-38735-11	S-396_20210505	Total/NA	Water	3510C	
410-38735-12	S-441_20210505	Total/NA	Water	3510C	
MB 410-125324/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-125324/2-A	Lab Control Sample	Total/NA	Water	3510C	

Prep Batch: 125592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-13	B-156_SL_20210505	Total/NA	Water	3510C	
MB 410-125592/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-125592/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 125647

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-1	B-165_20210505	Total/NA	Water	8270D	125324
410-38735-2	S-442_20210505	Total/NA	Water	8270D	125324
410-38735-3	B-39_SL_20210505	Total/NA	Water	8270D	125324
410-38735-4	S-446_20210505	Total/NA	Water	8270D	125324
410-38735-5	S-44_20210505	Total/NA	Water	8270D	125324
410-38735-6	DUP-6_20210505	Total/NA	Water	8270D	125324
410-38735-7	S-445_20210505	Total/NA	Water	8270D	125324
410-38735-8	S-50_20210505	Total/NA	Water	8270D	125324
410-38735-9	B-150_SL_20210505	Total/NA	Water	8270D	125324
410-38735-10	S-443_20210505	Total/NA	Water	8270D	125324
410-38735-11	S-396_20210505	Total/NA	Water	8270D	125324
MB 410-125324/1-A	Method Blank	Total/NA	Water	8270D	125324
LCS 410-125324/2-A	Lab Control Sample	Total/NA	Water	8270D	125324

Analysis Batch: 125887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-12	S-441_20210505	Total/NA	Water	8270D	125324
410-38735-13	B-156_SL_20210505	Total/NA	Water	8270D	125592
MB 410-125592/1-A	Method Blank	Total/NA	Water	8270D	125592
LCS 410-125592/2-A	Lab Control Sample	Total/NA	Water	8270D	125592

GC VOA

Prep Batch: 124366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-1	B-165_20210505	Total/NA	Water	RSK-175	
410-38735-2	S-442_20210505	Total/NA	Water	RSK-175	
410-38735-3	B-39_SL_20210505	Total/NA	Water	RSK-175	
410-38735-4	S-446_20210505	Total/NA	Water	RSK-175	
410-38735-5	S-44_20210505	Total/NA	Water	RSK-175	
410-38735-6	DUP-6_20210505	Total/NA	Water	RSK-175	
410-38735-7	S-445_20210505	Total/NA	Water	RSK-175	
410-38735-8	S-50_20210505	Total/NA	Water	RSK-175	
410-38735-9	B-150_SL_20210505	Total/NA	Water	RSK-175	
410-38735-10	S-443_20210505	Total/NA	Water	RSK-175	

GC VOA (Continued)

Prep Batch: 124366 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-11	S-396_20210505	Total/NA	Water	RSK-175	
410-38735-12	S-441_20210505	Total/NA	Water	RSK-175	
410-38735-13	B-156_SL_20210505	Total/NA	Water	RSK-175	
MB 410-124366/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-124366/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-124366/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 124380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-1	B-165_20210505	Total/NA	Water	RSK-175	124366
410-38735-2	S-442_20210505	Total/NA	Water	RSK-175	124366
410-38735-3	B-39_SL_20210505	Total/NA	Water	RSK-175	124366
410-38735-4	S-446_20210505	Total/NA	Water	RSK-175	124366
410-38735-5	S-44_20210505	Total/NA	Water	RSK-175	124366
410-38735-6	DUP-6_20210505	Total/NA	Water	RSK-175	124366
410-38735-7	S-445_20210505	Total/NA	Water	RSK-175	124366
410-38735-8	S-50_20210505	Total/NA	Water	RSK-175	124366
410-38735-9	B-150_SL_20210505	Total/NA	Water	RSK-175	124366
410-38735-10	S-443_20210505	Total/NA	Water	RSK-175	124366
410-38735-11	S-396_20210505	Total/NA	Water	RSK-175	124366
410-38735-12	S-441_20210505	Total/NA	Water	RSK-175	124366
410-38735-13	B-156_SL_20210505	Total/NA	Water	RSK-175	124366
MB 410-124366/1-A	Method Blank	Total/NA	Water	RSK-175	124366
LCS 410-124366/2-A	Lab Control Sample	Total/NA	Water	RSK-175	124366
LCSD 410-124366/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	124366

Prep Batch: 124773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-1 - DL	B-165_20210505	Total/NA	Water	RSK-175	
410-38735-2 - DL	S-442_20210505	Total/NA	Water	RSK-175	
410-38735-3 - DL	B-39_SL_20210505	Total/NA	Water	RSK-175	
410-38735-4 - DL	S-446_20210505	Total/NA	Water	RSK-175	
410-38735-5 - DL	S-44_20210505	Total/NA	Water	RSK-175	
410-38735-6 - DL	DUP-6_20210505	Total/NA	Water	RSK-175	
410-38735-7 - DL	S-445_20210505	Total/NA	Water	RSK-175	
410-38735-8 - DL	S-50_20210505	Total/NA	Water	RSK-175	
410-38735-9 - DL	B-150_SL_20210505	Total/NA	Water	RSK-175	
410-38735-10 - DL	S-443_20210505	Total/NA	Water	RSK-175	
410-38735-11 - DL	S-396_20210505	Total/NA	Water	RSK-175	
410-38735-12 - DL	S-441_20210505	Total/NA	Water	RSK-175	
410-38735-13 - DL	B-156_SL_20210505	Total/NA	Water	RSK-175	
MB 410-124773/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-124773/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-124773/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 124812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-1 - DL	B-165_20210505	Total/NA	Water	RSK-175	124773
410-38735-2 - DL	S-442_20210505	Total/NA	Water	RSK-175	124773
410-38735-3 - DL	B-39_SL_20210505	Total/NA	Water	RSK-175	124773
410-38735-4 - DL	S-446_20210505	Total/NA	Water	RSK-175	124773

GC VOA (Continued)

Analysis Batch: 124812 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-5 - DL	S-44_20210505	Total/NA	Water	RSK-175	124773
410-38735-6 - DL	DUP-6_20210505	Total/NA	Water	RSK-175	124773
410-38735-7 - DL	S-445_20210505	Total/NA	Water	RSK-175	124773
410-38735-8 - DL	S-50_20210505	Total/NA	Water	RSK-175	124773
410-38735-9 - DL	B-150_SL_20210505	Total/NA	Water	RSK-175	124773
410-38735-10 - DL	S-443_20210505	Total/NA	Water	RSK-175	124773
410-38735-11 - DL	S-396_20210505	Total/NA	Water	RSK-175	124773
410-38735-12 - DL	S-441_20210505	Total/NA	Water	RSK-175	124773
410-38735-13 - DL	B-156_SL_20210505	Total/NA	Water	RSK-175	124773
MB 410-124773/1-A	Method Blank	Total/NA	Water	RSK-175	124773
LCS 410-124773/2-A	Lab Control Sample	Total/NA	Water	RSK-175	124773
LCSD 410-124773/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	124773

GC Semi VOA

Prep Batch: 125045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-1	B-165_20210505	Total/NA	Water	8011	
MB 410-125045/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-125045/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-125045/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Prep Batch: 125048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-2	S-442_20210505	Total/NA	Water	8011	
410-38735-3	B-39_SL_20210505	Total/NA	Water	8011	
410-38735-4	S-446_20210505	Total/NA	Water	8011	
410-38735-5	S-44_20210505	Total/NA	Water	8011	
410-38735-6	DUP-6_20210505	Total/NA	Water	8011	
410-38735-7	S-445_20210505	Total/NA	Water	8011	
410-38735-8	S-50_20210505	Total/NA	Water	8011	
410-38735-9	B-150_SL_20210505	Total/NA	Water	8011	
410-38735-10	S-443_20210505	Total/NA	Water	8011	
410-38735-11	S-396_20210505	Total/NA	Water	8011	
410-38735-12	S-441_20210505	Total/NA	Water	8011	
410-38735-13	B-156_SL_20210505	Total/NA	Water	8011	
MB 410-125048/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-125048/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-125048/3-A	Lab Control Sample Dup	Total/NA	Water	8011	
410-38735-2 MS	S-442_20210505	Total/NA	Water	8011	
410-38735-3 DU	B-39_SL_20210505	Total/NA	Water	8011	

Analysis Batch: 125274

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-2	S-442_20210505	Total/NA	Water	8011	125048
410-38735-3	B-39_SL_20210505	Total/NA	Water	8011	125048
410-38735-4	S-446_20210505	Total/NA	Water	8011	125048
410-38735-5	S-44_20210505	Total/NA	Water	8011	125048
410-38735-6	DUP-6_20210505	Total/NA	Water	8011	125048
410-38735-7	S-445_20210505	Total/NA	Water	8011	125048
410-38735-8	S-50_20210505	Total/NA	Water	8011	125048

GC Semi VOA (Continued)

Analysis Batch: 125274 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-9	B-150_SL_20210505	Total/NA	Water	8011	125048
410-38735-10	S-443_20210505	Total/NA	Water	8011	125048
410-38735-11	S-396_20210505	Total/NA	Water	8011	125048
410-38735-12	S-441_20210505	Total/NA	Water	8011	125048
410-38735-13	B-156_SL_20210505	Total/NA	Water	8011	125048
MB 410-125048/1-A	Method Blank	Total/NA	Water	8011	125048
LCS 410-125048/2-A	Lab Control Sample	Total/NA	Water	8011	125048
LCSD 410-125048/3-A	Lab Control Sample Dup	Total/NA	Water	8011	125048
410-38735-2 MS	S-442_20210505	Total/NA	Water	8011	125048
410-38735-3 DU	B-39_SL_20210505	Total/NA	Water	8011	125048

Analysis Batch: 125276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-1	B-165_20210505	Total/NA	Water	8011	125045
MB 410-125045/1-A	Method Blank	Total/NA	Water	8011	125045
LCS 410-125045/2-A	Lab Control Sample	Total/NA	Water	8011	125045
LCSD 410-125045/3-A	Lab Control Sample Dup	Total/NA	Water	8011	125045

HPLC/IC

Analysis Batch: 123989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-1	B-165_20210505	Total/NA	Water	EPA 300.0 R2.1	
410-38735-2	S-442_20210505	Total/NA	Water	EPA 300.0 R2.1	
410-38735-3	B-39_SL_20210505	Total/NA	Water	EPA 300.0 R2.1	
410-38735-4	S-446_20210505	Total/NA	Water	EPA 300.0 R2.1	
410-38735-5	S-44_20210505	Total/NA	Water	EPA 300.0 R2.1	
410-38735-6	DUP-6_20210505	Total/NA	Water	EPA 300.0 R2.1	
410-38735-7	S-445_20210505	Total/NA	Water	EPA 300.0 R2.1	
410-38735-8	S-50_20210505	Total/NA	Water	EPA 300.0 R2.1	
410-38735-9	B-150_SL_20210505	Total/NA	Water	EPA 300.0 R2.1	
410-38735-10	S-443_20210505	Total/NA	Water	EPA 300.0 R2.1	
410-38735-11	S-396_20210505	Total/NA	Water	EPA 300.0 R2.1	
410-38735-12	S-441_20210505	Total/NA	Water	EPA 300.0 R2.1	
410-38735-13	B-156_SL_20210505	Total/NA	Water	EPA 300.0 R2.1	
MB 410-123989/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-123989/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
410-38735-7 MS	S-445_20210505	Total/NA	Water	EPA 300.0 R2.1	
410-38735-7 DU	S-445_20210505	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 124500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-124500/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-124500/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 124197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-1	B-165_20210505	Total Recoverable	Water	3005A	
410-38735-2	S-442_20210505	Total Recoverable	Water	3005A	
410-38735-3	B-39_SL_20210505	Total Recoverable	Water	3005A	

Metals (Continued)

Prep Batch: 124197 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-4	S-446_20210505	Total Recoverable	Water	3005A	
410-38735-6	DUP-6_20210505	Total Recoverable	Water	3005A	
410-38735-7	S-445_20210505	Total Recoverable	Water	3005A	
410-38735-8	S-50_20210505	Total Recoverable	Water	3005A	
410-38735-9	B-150_SL_20210505	Total Recoverable	Water	3005A	
410-38735-12	S-441_20210505	Total Recoverable	Water	3005A	
410-38735-13	B-156_SL_20210505	Total Recoverable	Water	3005A	
MB 410-124197/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-124197/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
410-38735-3 MS	B-39_SL_20210505	Total Recoverable	Water	3005A	
410-38735-3 MSD	B-39_SL_20210505	Total Recoverable	Water	3005A	
410-38735-3 DU	B-39_SL_20210505	Total Recoverable	Water	3005A	

Prep Batch: 124198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-5	S-44_20210505	Total Recoverable	Water	3005A	
410-38735-10	S-443_20210505	Total Recoverable	Water	3005A	
410-38735-11	S-396_20210505	Total Recoverable	Water	3005A	
MB 410-124198/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-124198/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 124208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-1	B-165_20210505	Dissolved	Water	Non-Digest Prep	
410-38735-2	S-442_20210505	Dissolved	Water	Non-Digest Prep	
410-38735-3	B-39_SL_20210505	Dissolved	Water	Non-Digest Prep	
410-38735-4	S-446_20210505	Dissolved	Water	Non-Digest Prep	
410-38735-5	S-44_20210505	Dissolved	Water	Non-Digest Prep	
410-38735-6	DUP-6_20210505	Dissolved	Water	Non-Digest Prep	
410-38735-7	S-445_20210505	Dissolved	Water	Non-Digest Prep	
410-38735-8	S-50_20210505	Dissolved	Water	Non-Digest Prep	
410-38735-9	B-150_SL_20210505	Dissolved	Water	Non-Digest Prep	
410-38735-10	S-443_20210505	Dissolved	Water	Non-Digest Prep	
410-38735-11	S-396_20210505	Dissolved	Water	Non-Digest Prep	
410-38735-12	S-441_20210505	Dissolved	Water	Non-Digest Prep	
410-38735-13	B-156_SL_20210505	Dissolved	Water	Non-Digest Prep	
MB 410-124208/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-124208/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	
410-38735-3 MS	B-39_SL_20210505	Dissolved	Water	Non-Digest Prep	
410-38735-3 MSD	B-39_SL_20210505	Dissolved	Water	Non-Digest Prep	
410-38735-3 DU	B-39_SL_20210505	Dissolved	Water	Non-Digest Prep	

Analysis Batch: 124498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-5	S-44_20210505	Total Recoverable	Water	6010C	124198
410-38735-10	S-443_20210505	Total Recoverable	Water	6010C	124198
410-38735-11	S-396_20210505	Total Recoverable	Water	6010C	124198
MB 410-124198/1-A	Method Blank	Total Recoverable	Water	6010C	124198
LCS 410-124198/2-A	Lab Control Sample	Total Recoverable	Water	6010C	124198

Metals

Analysis Batch: 124606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-1	B-165_20210505	Dissolved	Water	6020A	124208
410-38735-2	S-442_20210505	Dissolved	Water	6020A	124208
410-38735-3	B-39_SL_20210505	Dissolved	Water	6020A	124208
410-38735-4	S-446_20210505	Dissolved	Water	6020A	124208
410-38735-5	S-44_20210505	Dissolved	Water	6020A	124208
410-38735-6	DUP-6_20210505	Dissolved	Water	6020A	124208
410-38735-7	S-445_20210505	Dissolved	Water	6020A	124208
410-38735-8	S-50_20210505	Dissolved	Water	6020A	124208
410-38735-9	B-150_SL_20210505	Dissolved	Water	6020A	124208
410-38735-10	S-443_20210505	Dissolved	Water	6020A	124208
410-38735-11	S-396_20210505	Dissolved	Water	6020A	124208
410-38735-12	S-441_20210505	Dissolved	Water	6020A	124208
410-38735-13	B-156_SL_20210505	Dissolved	Water	6020A	124208
MB 410-124208/1-A	Method Blank	Total/NA	Water	6020A	124208
LCS 410-124208/2-A	Lab Control Sample	Total/NA	Water	6020A	124208
410-38735-3 MS	B-39_SL_20210505	Dissolved	Water	6020A	124208
410-38735-3 MSD	B-39_SL_20210505	Dissolved	Water	6020A	124208
410-38735-3 DU	B-39_SL_20210505	Dissolved	Water	6020A	124208

Analysis Batch: 125718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-1	B-165_20210505	Total Recoverable	Water	6010C	124197
410-38735-2	S-442_20210505	Total Recoverable	Water	6010C	124197
410-38735-3	B-39_SL_20210505	Total Recoverable	Water	6010C	124197
410-38735-4	S-446_20210505	Total Recoverable	Water	6010C	124197
410-38735-6	DUP-6_20210505	Total Recoverable	Water	6010C	124197
410-38735-7	S-445_20210505	Total Recoverable	Water	6010C	124197
410-38735-8	S-50_20210505	Total Recoverable	Water	6010C	124197
410-38735-9	B-150_SL_20210505	Total Recoverable	Water	6010C	124197
410-38735-12	S-441_20210505	Total Recoverable	Water	6010C	124197
410-38735-13	B-156_SL_20210505	Total Recoverable	Water	6010C	124197
MB 410-124197/1-A	Method Blank	Total Recoverable	Water	6010C	124197
LCS 410-124197/2-A	Lab Control Sample	Total Recoverable	Water	6010C	124197
410-38735-3 MS	B-39_SL_20210505	Total Recoverable	Water	6010C	124197
410-38735-3 MSD	B-39_SL_20210505	Total Recoverable	Water	6010C	124197
410-38735-3 DU	B-39_SL_20210505	Total Recoverable	Water	6010C	124197

General Chemistry

Analysis Batch: 124510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-1	B-165_20210505	Total/NA	Water	SM5310C	
410-38735-2	S-442_20210505	Total/NA	Water	SM5310C	
410-38735-3	B-39_SL_20210505	Total/NA	Water	SM5310C	
410-38735-4	S-446_20210505	Total/NA	Water	SM5310C	
410-38735-5	S-44_20210505	Total/NA	Water	SM5310C	
410-38735-6	DUP-6_20210505	Total/NA	Water	SM5310C	
410-38735-7	S-445_20210505	Total/NA	Water	SM5310C	
410-38735-8	S-50_20210505	Total/NA	Water	SM5310C	
410-38735-9	B-150_SL_20210505	Total/NA	Water	SM5310C	
410-38735-10	S-443_20210505	Total/NA	Water	SM5310C	

General Chemistry (Continued)

Analysis Batch: 124510 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-11	S-396_20210505	Total/NA	Water	SM5310C	
410-38735-12	S-441_20210505	Total/NA	Water	SM5310C	
410-38735-13	B-156_SL_20210505	Total/NA	Water	SM5310C	

Prep Batch: 125016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-1	B-165_20210505	Total/NA	Water	351.2	
410-38735-2	S-442_20210505	Total/NA	Water	351.2	
410-38735-3	B-39_SL_20210505	Total/NA	Water	351.2	
410-38735-4	S-446_20210505	Total/NA	Water	351.2	
410-38735-5	S-44_20210505	Total/NA	Water	351.2	
410-38735-6	DUP-6_20210505	Total/NA	Water	351.2	
410-38735-7	S-445_20210505	Total/NA	Water	351.2	
410-38735-8	S-50_20210505	Total/NA	Water	351.2	
410-38735-9	B-150_SL_20210505	Total/NA	Water	351.2	
410-38735-10	S-443_20210505	Total/NA	Water	351.2	
410-38735-11	S-396_20210505	Total/NA	Water	351.2	
410-38735-12	S-441_20210505	Total/NA	Water	351.2	
410-38735-13	B-156_SL_20210505	Total/NA	Water	351.2	
MB 410-125016/2-A	Method Blank	Total/NA	Water	351.2	
LCS 410-125016/1-A	Lab Control Sample	Total/NA	Water	351.2	
410-38735-9 MS	B-150_SL_20210505	Total/NA	Water	351.2	
410-38735-9 DU	B-150_SL_20210505	Total/NA	Water	351.2	

Analysis Batch: 125033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-1	B-165_20210505	Total/NA	Water	2320B-2011	
410-38735-2	S-442_20210505	Total/NA	Water	2320B-2011	
410-38735-3	B-39_SL_20210505	Total/NA	Water	2320B-2011	
410-38735-4	S-446_20210505	Total/NA	Water	2320B-2011	
410-38735-5	S-44_20210505	Total/NA	Water	2320B-2011	
410-38735-6	DUP-6_20210505	Total/NA	Water	2320B-2011	
410-38735-7	S-445_20210505	Total/NA	Water	2320B-2011	
410-38735-8	S-50_20210505	Total/NA	Water	2320B-2011	
410-38735-9	B-150_SL_20210505	Total/NA	Water	2320B-2011	
410-38735-10	S-443_20210505	Total/NA	Water	2320B-2011	
410-38735-11	S-396_20210505	Total/NA	Water	2320B-2011	
410-38735-12	S-441_20210505	Total/NA	Water	2320B-2011	
410-38735-13	B-156_SL_20210505	Total/NA	Water	2320B-2011	
MB 410-125033/59	Method Blank	Total/NA	Water	2320B-2011	
LCS 410-125033/60	Lab Control Sample	Total/NA	Water	2320B-2011	

Analysis Batch: 125593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-1	B-165_20210505	Total/NA	Water	351.2	125016
410-38735-2	S-442_20210505	Total/NA	Water	351.2	125016
410-38735-3	B-39_SL_20210505	Total/NA	Water	351.2	125016
410-38735-4	S-446_20210505	Total/NA	Water	351.2	125016
410-38735-5	S-44_20210505	Total/NA	Water	351.2	125016
410-38735-6	DUP-6_20210505	Total/NA	Water	351.2	125016
410-38735-7	S-445_20210505	Total/NA	Water	351.2	125016

General Chemistry (Continued)

Analysis Batch: 125593 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-8	S-50_20210505	Total/NA	Water	351.2	125016
410-38735-9	B-150_SL_20210505	Total/NA	Water	351.2	125016
410-38735-10	S-443_20210505	Total/NA	Water	351.2	125016
410-38735-11	S-396_20210505	Total/NA	Water	351.2	125016
410-38735-12	S-441_20210505	Total/NA	Water	351.2	125016
410-38735-13	B-156_SL_20210505	Total/NA	Water	351.2	125016
MB 410-125016/2-A	Method Blank	Total/NA	Water	351.2	125016
LCS 410-125016/1-A	Lab Control Sample	Total/NA	Water	351.2	125016
410-38735-9 MS	B-150_SL_20210505	Total/NA	Water	351.2	125016
410-38735-9 DU	B-150_SL_20210505	Total/NA	Water	351.2	125016

Analysis Batch: 125613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-1	B-165_20210505	Total/NA	Water	5310C-2011	
410-38735-2	S-442_20210505	Total/NA	Water	5310C-2011	
410-38735-3	B-39_SL_20210505	Total/NA	Water	5310C-2011	
410-38735-5	S-44_20210505	Total/NA	Water	5310C-2011	
410-38735-6	DUP-6_20210505	Total/NA	Water	5310C-2011	
410-38735-7	S-445_20210505	Total/NA	Water	5310C-2011	
410-38735-8	S-50_20210505	Total/NA	Water	5310C-2011	
410-38735-9	B-150_SL_20210505	Total/NA	Water	5310C-2011	
410-38735-10	S-443_20210505	Total/NA	Water	5310C-2011	
410-38735-11	S-396_20210505	Total/NA	Water	5310C-2011	
410-38735-12	S-441_20210505	Total/NA	Water	5310C-2011	
410-38735-13	B-156_SL_20210505	Total/NA	Water	5310C-2011	
MB 410-125613/37	Method Blank	Total/NA	Water	5310C-2011	
MB 410-125613/5	Method Blank	Total/NA	Water	5310C-2011	
LCS 410-125613/36	Lab Control Sample	Total/NA	Water	5310C-2011	
LCS 410-125613/4	Lab Control Sample	Total/NA	Water	5310C-2011	
410-38735-11 MS	S-396_20210505	Total/NA	Water	5310C-2011	
410-38735-11 DU	S-396_20210505	Total/NA	Water	5310C-2011	

Analysis Batch: 125988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-1	B-165_20210505	Total/NA	Water	5310 B-2011	
410-38735-2	S-442_20210505	Total/NA	Water	5310 B-2011	
410-38735-3	B-39_SL_20210505	Total/NA	Water	5310 B-2011	
410-38735-4	S-446_20210505	Total/NA	Water	5310 B-2011	
410-38735-5	S-44_20210505	Total/NA	Water	5310 B-2011	
410-38735-6	DUP-6_20210505	Total/NA	Water	5310 B-2011	
410-38735-7	S-445_20210505	Total/NA	Water	5310 B-2011	
410-38735-8	S-50_20210505	Total/NA	Water	5310 B-2011	
410-38735-9	B-150_SL_20210505	Total/NA	Water	5310 B-2011	
410-38735-10	S-443_20210505	Total/NA	Water	5310 B-2011	
410-38735-11	S-396_20210505	Total/NA	Water	5310 B-2011	
410-38735-12	S-441_20210505	Total/NA	Water	5310 B-2011	
410-38735-13	B-156_SL_20210505	Total/NA	Water	5310 B-2011	
MB 410-125988/5	Method Blank	Total/NA	Water	5310 B-2011	
LCS 410-125988/4	Lab Control Sample	Total/NA	Water	5310 B-2011	
410-38735-1 MS	B-165_20210505	Total/NA	Water	5310 B-2011	
410-38735-11 MS	S-396_20210505	Total/NA	Water	5310 B-2011	

General Chemistry (Continued)

Analysis Batch: 125988 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-1 DU	B-165_20210505	Total/NA	Water	5310 B-2011	
410-38735-11 DU	S-396_20210505	Total/NA	Water	5310 B-2011	

Analysis Batch: 125994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38735-4	S-446_20210505	Total/NA	Water	5310C-2011	
MB 410-125994/25	Method Blank	Total/NA	Water	5310C-2011	
LCS 410-125994/24	Lab Control Sample	Total/NA	Water	5310C-2011	

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38735-1

Client Sample ID: B-165_20210505

Lab Sample ID: 410-38735-1

Date Collected: 05/05/21 09:00

Matrix: Water

Date Received: 05/06/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	125930	05/13/21 15:27	UKAD	ELLE
Total/NA	Prep	3510C			125324	05/12/21 10:10	R9CT	ELLE
Total/NA	Analysis	8270D		1	125647	05/13/21 00:32	W6XI	ELLE
Total/NA	Prep	RSK-175			124366	05/10/21 10:10	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	124380	05/10/21 12:51	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		124773	05/11/21 07:50	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	20	124812	05/11/21 10:01	LXF2	ELLE
Total/NA	Prep	8011			125045	05/11/21 16:00	QQ3P	ELLE
Total/NA	Analysis	8011		1	125276	05/12/21 14:22	AC3T	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	123989	05/08/21 08:24	Z7CH	ELLE
Total Recoverable	Prep	3005A			124197	05/10/21 01:52	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	125718	05/12/21 18:58	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			124208	05/10/21 04:13	UJL8	ELLE
Dissolved	Analysis	6020A		1	124606	05/10/21 17:54	UCIG	ELLE
Total/NA	Analysis	2320B-2011		1	125033	05/11/21 02:29	DI9Q	ELLE
Total/NA	Prep	351.2			125016	05/11/21 13:58	F8AU	ELLE
Total/NA	Analysis	351.2		1	125593	05/12/21 13:52	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	125988	05/12/21 12:07	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	125613	05/11/21 21:08	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: S-442_20210505

Lab Sample ID: 410-38735-2

Date Collected: 05/05/21 08:55

Matrix: Water

Date Received: 05/06/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	124782	05/11/21 14:50	HDS6	ELLE
Total/NA	Analysis	8260C/UST	DL	50	125307	05/12/21 19:23	H9JD	ELLE
Total/NA	Prep	3510C			125324	05/12/21 10:10	R9CT	ELLE
Total/NA	Analysis	8270D		1	125647	05/13/21 01:00	W6XI	ELLE
Total/NA	Prep	RSK-175			124366	05/10/21 10:10	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	124380	05/10/21 13:06	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		124773	05/11/21 07:50	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	50	124812	05/11/21 10:19	LXF2	ELLE
Total/NA	Prep	8011			125048	05/11/21 16:30	QQ3P	ELLE
Total/NA	Analysis	8011		1	125274	05/12/21 08:19	AC3T	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	123989	05/08/21 08:40	Z7CH	ELLE
Total Recoverable	Prep	3005A			124197	05/10/21 01:52	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	125718	05/12/21 19:10	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			124208	05/10/21 04:13	UJL8	ELLE
Dissolved	Analysis	6020A		1	124606	05/10/21 17:52	UCIG	ELLE
Total/NA	Analysis	2320B-2011		1	125033	05/11/21 02:08	DI9Q	ELLE

Client Sample ID: S-442_20210505

Lab Sample ID: 410-38735-2

Date Collected: 05/05/21 08:55

Matrix: Water

Date Received: 05/06/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	351.2			125016	05/11/21 13:58	F8AU	ELLE
Total/NA	Analysis	351.2		1	125593	05/12/21 13:50	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	125988	05/12/21 12:39	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	125613	05/11/21 21:24	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: B-39_SL_20210505

Lab Sample ID: 410-38735-3

Date Collected: 05/05/21 09:20

Matrix: Water

Date Received: 05/06/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	124782	05/11/21 14:01	HDS6	ELLE
Total/NA	Prep	3510C			125324	05/12/21 10:10	R9CT	ELLE
Total/NA	Analysis	8270D		1	125647	05/13/21 01:28	W6XI	ELLE
Total/NA	Prep	RSK-175			124366	05/10/21 10:10	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	124380	05/10/21 13:22	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		124773	05/11/21 07:50	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	200	124812	05/11/21 10:38	LXF2	ELLE
Total/NA	Prep	8011			125048	05/11/21 16:30	QQ3P	ELLE
Total/NA	Analysis	8011		1	125274	05/12/21 08:36	AC3T	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	123989	05/08/21 09:28	Z7CH	ELLE
Total Recoverable	Prep	3005A			124197	05/10/21 01:52	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	125718	05/12/21 17:58	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			124208	05/10/21 04:13	UJL8	ELLE
Dissolved	Analysis	6020A		1	124606	05/10/21 17:40	UCIG	ELLE
Total/NA	Analysis	2320B-2011		1	125033	05/11/21 01:48	DI9Q	ELLE
Total/NA	Prep	351.2			125016	05/11/21 13:58	F8AU	ELLE
Total/NA	Analysis	351.2		1	125593	05/12/21 13:54	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	125988	05/12/21 12:50	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		5	125613	05/11/21 22:29	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: S-446_20210505

Lab Sample ID: 410-38735-4

Date Collected: 05/05/21 10:00

Matrix: Water

Date Received: 05/06/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	124782	05/11/21 15:13	HDS6	ELLE
Total/NA	Prep	3510C			125324	05/12/21 10:10	R9CT	ELLE
Total/NA	Analysis	8270D		1	125647	05/13/21 01:57	W6XI	ELLE
Total/NA	Prep	RSK-175			124366	05/10/21 10:10	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	124380	05/10/21 13:37	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		124773	05/11/21 07:50	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	100	124812	05/11/21 10:56	LXF2	ELLE

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38735-1

Client Sample ID: S-446_20210505

Lab Sample ID: 410-38735-4

Date Collected: 05/05/21 10:00
Matrix: Water
Date Received: 05/06/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			125048	05/11/21 16:30	QQ3P	ELLE
Total/NA	Analysis	8011		1	125274	05/12/21 09:10	AC3T	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	123989	05/08/21 09:45	Z7CH	ELLE
Total Recoverable	Prep	3005A			124197	05/10/21 01:52	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	125718	05/12/21 18:52	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			124208	05/10/21 04:13	UJL8	ELLE
Dissolved	Analysis	6020A		1	124606	05/10/21 18:00	UCIG	ELLE
Total/NA	Analysis	2320B-2011		1	125033	05/11/21 02:55	DI9Q	ELLE
Total/NA	Prep	351.2			125016	05/11/21 13:58	F8AU	ELLE
Total/NA	Analysis	351.2		1	125593	05/12/21 13:44	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	125988	05/12/21 13:01	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	125994	05/13/21 01:47	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: S-44_20210505

Lab Sample ID: 410-38735-5

Date Collected: 05/05/21 10:35
Matrix: Water
Date Received: 05/06/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	124782	05/11/21 16:01	HDS6	ELLE
Total/NA	Prep	3510C			125324	05/12/21 10:10	R9CT	ELLE
Total/NA	Analysis	8270D		1	125647	05/13/21 02:25	W6XI	ELLE
Total/NA	Prep	RSK-175			124366	05/10/21 10:10	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	124380	05/10/21 13:52	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		124773	05/11/21 07:50	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	100	124812	05/11/21 11:14	LXF2	ELLE
Total/NA	Prep	8011			125048	05/11/21 16:30	QQ3P	ELLE
Total/NA	Analysis	8011		1	125274	05/12/21 09:27	AC3T	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	123989	05/08/21 10:01	Z7CH	ELLE
Total Recoverable	Prep	3005A			124198	05/10/21 01:55	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	124498	05/10/21 12:15	WJM9	ELLE
Dissolved	Prep	Non-Digest Prep			124208	05/10/21 04:13	UJL8	ELLE
Dissolved	Analysis	6020A		1	124606	05/10/21 18:15	UCIG	ELLE
Total/NA	Analysis	2320B-2011		1	125033	05/11/21 01:28	DI9Q	ELLE
Total/NA	Prep	351.2			125016	05/11/21 13:58	F8AU	ELLE
Total/NA	Analysis	351.2		1	125593	05/12/21 13:46	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	125988	05/12/21 13:11	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	125613	05/11/21 23:01	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: DUP-6_20210505

Lab Sample ID: 410-38735-6

Date Collected: 05/05/21 00:00

Matrix: Water

Date Received: 05/06/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	124782	05/11/21 16:25	HDS6	ELLE
Total/NA	Prep	3510C			125324	05/12/21 10:10	R9CT	ELLE
Total/NA	Analysis	8270D		1	125647	05/13/21 02:53	W6XI	ELLE
Total/NA	Prep	RSK-175			124366	05/10/21 10:10	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	124380	05/10/21 14:07	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		124773	05/11/21 07:50	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	100	124812	05/11/21 11:32	LXF2	ELLE
Total/NA	Prep	8011			125048	05/11/21 16:30	QQ3P	ELLE
Total/NA	Analysis	8011		1	125274	05/12/21 09:44	AC3T	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	123989	05/08/21 10:17	Z7CH	ELLE
Total Recoverable	Prep	3005A			124197	05/10/21 01:52	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	125718	05/12/21 19:07	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			124208	05/10/21 04:13	UJL8	ELLE
Dissolved	Analysis	6020A		1	124606	05/10/21 18:02	UCIG	ELLE
Total/NA	Analysis	2320B-2011		1	125033	05/11/21 01:41	DI9Q	ELLE
Total/NA	Prep	351.2			125016	05/11/21 13:58	F8AU	ELLE
Total/NA	Analysis	351.2		1	125593	05/12/21 13:33	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	125988	05/12/21 13:22	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	125613	05/11/21 23:50	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: S-445_20210505

Lab Sample ID: 410-38735-7

Date Collected: 05/05/21 11:35

Matrix: Water

Date Received: 05/06/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	124782	05/11/21 16:48	HDS6	ELLE
Total/NA	Prep	3510C			125324	05/12/21 10:10	R9CT	ELLE
Total/NA	Analysis	8270D		1	125647	05/13/21 03:21	W6XI	ELLE
Total/NA	Prep	RSK-175			124366	05/10/21 10:10	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	124380	05/10/21 14:23	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		124773	05/11/21 07:50	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	20	124812	05/11/21 11:50	LXF2	ELLE
Total/NA	Prep	8011			125048	05/11/21 16:30	QQ3P	ELLE
Total/NA	Analysis	8011		1	125274	05/12/21 10:01	AC3T	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	123989	05/08/21 10:33	Z7CH	ELLE
Total Recoverable	Prep	3005A			124197	05/10/21 01:52	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	125718	05/12/21 19:17	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			124208	05/10/21 04:13	UJL8	ELLE
Dissolved	Analysis	6020A		1	124606	05/10/21 18:11	UCIG	ELLE
Total/NA	Analysis	2320B-2011		1	125033	05/11/21 02:23	DI9Q	ELLE
Total/NA	Prep	351.2			125016	05/11/21 13:58	F8AU	ELLE
Total/NA	Analysis	351.2		10	125593	05/12/21 14:34	JCG7	ELLE

Client Sample ID: S-445_20210505

Lab Sample ID: 410-38735-7

Date Collected: 05/05/21 11:35

Matrix: Water

Date Received: 05/06/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	5310 B-2011		10	125988	05/12/21 13:55	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		5	125613	05/12/21 00:06	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: S-50_20210505

Lab Sample ID: 410-38735-8

Date Collected: 05/05/21 13:00

Matrix: Water

Date Received: 05/06/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	124782	05/11/21 14:26	HDS6	ELLE
Total/NA	Prep	3510C			125324	05/12/21 10:10	R9CT	ELLE
Total/NA	Analysis	8270D		1	125647	05/13/21 03:49	W6XI	ELLE
Total/NA	Prep	RSK-175			124366	05/10/21 10:10	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	124380	05/10/21 14:53	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		124773	05/11/21 07:50	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	50	124812	05/11/21 12:30	LXF2	ELLE
Total/NA	Prep	8011			125048	05/11/21 16:30	QQ3P	ELLE
Total/NA	Analysis	8011		1	125274	05/12/21 10:18	AC3T	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	123989	05/08/21 11:21	Z7CH	ELLE
Total Recoverable	Prep	3005A			124197	05/10/21 01:52	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	125718	05/12/21 19:20	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			124208	05/10/21 04:13	UJL8	ELLE
Dissolved	Analysis	6020A		1	124606	05/10/21 18:23	UCIG	ELLE
Total/NA	Analysis	2320B-2011		1	125033	05/11/21 02:41	DI9Q	ELLE
Total/NA	Prep	351.2			125016	05/11/21 13:58	F8AU	ELLE
Total/NA	Analysis	351.2		1	125593	05/12/21 13:37	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	125988	05/12/21 14:05	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	125613	05/12/21 00:22	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: B-150_SL_20210505

Lab Sample ID: 410-38735-9

Date Collected: 05/05/21 12:30

Matrix: Water

Date Received: 05/06/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		100	124782	05/11/21 17:12	HDS6	ELLE
Total/NA	Analysis	8260C/UST	DL	1000	124782	05/11/21 17:36	HDS6	ELLE
Total/NA	Analysis	8260C/UST	DL2	10000	125307	05/12/21 19:47	H9JD	ELLE
Total/NA	Prep	3510C			125324	05/12/21 10:10	R9CT	ELLE
Total/NA	Analysis	8270D		1	125647	05/13/21 04:17	W6XI	ELLE
Total/NA	Prep	RSK-175			124366	05/10/21 10:10	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	124380	05/10/21 15:09	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		124773	05/11/21 07:50	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	100	124812	05/11/21 12:49	LXF2	ELLE

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38735-1

Client Sample ID: B-150_SL_20210505

Lab Sample ID: 410-38735-9

Date Collected: 05/05/21 12:30

Matrix: Water

Date Received: 05/06/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			125048	05/11/21 16:30	QQ3P	ELLE
Total/NA	Analysis	8011		1	125274	05/12/21 10:35	AC3T	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	123989	05/08/21 11:37	Z7CH	ELLE
Total Recoverable	Prep	3005A			124197	05/10/21 01:52	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	125718	05/12/21 19:26	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			124208	05/10/21 04:13	UJL8	ELLE
Dissolved	Analysis	6020A		1	124606	05/10/21 18:13	UCIG	ELLE
Total/NA	Analysis	2320B-2011		1	125033	05/11/21 01:35	DI9Q	ELLE
Total/NA	Prep	351.2			125016	05/11/21 13:58	F8AU	ELLE
Total/NA	Analysis	351.2		1	125593	05/12/21 13:06	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	125988	05/12/21 14:16	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	125613	05/12/21 00:39	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: S-443_20210505

Lab Sample ID: 410-38735-10

Date Collected: 05/05/21 13:25

Matrix: Water

Date Received: 05/06/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	124782	05/11/21 18:00	HDS6	ELLE
Total/NA	Prep	3510C			125324	05/12/21 10:10	R9CT	ELLE
Total/NA	Analysis	8270D		1	125647	05/13/21 04:45	W6XI	ELLE
Total/NA	Prep	RSK-175			124366	05/10/21 10:10	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	124380	05/10/21 15:29	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		124773	05/11/21 07:50	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	20	124812	05/11/21 13:07	LXF2	ELLE
Total/NA	Prep	8011			125048	05/11/21 16:30	QQ3P	ELLE
Total/NA	Analysis	8011		1	125274	05/12/21 10:52	AC3T	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	123989	05/08/21 11:54	Z7CH	ELLE
Total Recoverable	Prep	3005A			124198	05/10/21 01:55	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	124498	05/10/21 12:18	WJM9	ELLE
Dissolved	Prep	Non-Digest Prep			124208	05/10/21 04:13	UJL8	ELLE
Dissolved	Analysis	6020A		1	124606	05/10/21 18:21	UCIG	ELLE
Total/NA	Analysis	2320B-2011		1	125033	05/11/21 02:49	DI9Q	ELLE
Total/NA	Prep	351.2			125016	05/11/21 13:58	F8AU	ELLE
Total/NA	Analysis	351.2		1	125593	05/12/21 13:48	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	125988	05/12/21 14:27	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	125613	05/12/21 00:55	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38735-1

Client Sample ID: S-396_20210505

Lab Sample ID: 410-38735-11

Date Collected: 05/05/21 14:15

Matrix: Water

Date Received: 05/06/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		50	125930	05/13/21 13:27	UKAD	ELLE
Total/NA	Analysis	8260C/UST	DL	500	126998	05/17/21 15:55	UKAD	ELLE
Total/NA	Prep	3510C			125324	05/12/21 10:10	R9CT	ELLE
Total/NA	Analysis	8270D		1	125647	05/13/21 05:13	W6XI	ELLE
Total/NA	Prep	RSK-175			124366	05/10/21 10:10	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	124380	05/10/21 15:46	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		124773	05/11/21 07:50	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	100	124812	05/11/21 13:25	LXF2	ELLE
Total/NA	Prep	8011			125048	05/11/21 16:30	QQ3P	ELLE
Total/NA	Analysis	8011		1	125274	05/12/21 11:08	AC3T	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	123989	05/08/21 13:14	Z7CH	ELLE
Total Recoverable	Prep	3005A			124198	05/10/21 01:55	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	124498	05/10/21 12:12	WJM9	ELLE
Dissolved	Prep	Non-Digest Prep			124208	05/10/21 04:13	UJL8	ELLE
Dissolved	Analysis	6020A		1	124606	05/10/21 18:07	UCIG	ELLE
Total/NA	Analysis	2320B-2011		1	125033	05/11/21 02:14	DI9Q	ELLE
Total/NA	Prep	351.2			125016	05/11/21 13:58	F8AU	ELLE
Total/NA	Analysis	351.2		1	125593	05/12/21 13:56	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	125988	05/12/21 14:38	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	125613	05/11/21 21:41	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: S-441_20210505

Lab Sample ID: 410-38735-12

Date Collected: 05/05/21 14:45

Matrix: Water

Date Received: 05/06/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	124782	05/11/21 18:47	HDS6	ELLE
Total/NA	Prep	3510C			125324	05/12/21 10:10	R9CT	ELLE
Total/NA	Analysis	8270D		1	125887	05/13/21 13:35	UWHS	ELLE
Total/NA	Prep	RSK-175			124366	05/10/21 10:10	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	124380	05/10/21 16:02	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		124773	05/11/21 07:50	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	50	124812	05/11/21 13:44	LXF2	ELLE
Total/NA	Prep	8011			125048	05/11/21 16:30	QQ3P	ELLE
Total/NA	Analysis	8011		1	125274	05/12/21 11:25	AC3T	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	123989	05/08/21 12:42	Z7CH	ELLE
Total Recoverable	Prep	3005A			124197	05/10/21 01:52	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	125718	05/12/21 19:23	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			124208	05/10/21 04:13	UJL8	ELLE
Dissolved	Analysis	6020A		1	124606	05/10/21 18:04	UCIG	ELLE
Total/NA	Analysis	2320B-2011		1	125033	05/11/21 03:02	DI9Q	ELLE

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38735-1

Client Sample ID: S-441_20210505

Lab Sample ID: 410-38735-12

Date Collected: 05/05/21 14:45

Matrix: Water

Date Received: 05/06/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	351.2			125016	05/11/21 13:58	F8AU	ELLE
Total/NA	Analysis	351.2		1	125593	05/12/21 13:58	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	125988	05/12/21 15:10	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		5	125613	05/12/21 01:11	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: B-156_SL_20210505

Lab Sample ID: 410-38735-13

Date Collected: 05/05/21 15:10

Matrix: Water

Date Received: 05/06/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	124782	05/11/21 19:11	HDS6	ELLE
Total/NA	Prep	3510C			125592	05/12/21 17:24	QQ3P	ELLE
Total/NA	Analysis	8270D		1	125887	05/13/21 14:31	UWHS	ELLE
Total/NA	Prep	RSK-175			124366	05/10/21 10:10	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	124380	05/10/21 16:19	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		124773	05/11/21 07:50	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	100	124812	05/11/21 14:02	LXF2	ELLE
Total/NA	Prep	8011			125048	05/11/21 16:30	QQ3P	ELLE
Total/NA	Analysis	8011		1	125274	05/12/21 11:42	AC3T	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	123989	05/08/21 12:58	Z7CH	ELLE
Total Recoverable	Prep	3005A			124197	05/10/21 01:52	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	125718	05/12/21 19:13	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			124208	05/10/21 04:13	UJL8	ELLE
Dissolved	Analysis	6020A		1	124606	05/10/21 18:09	UCIG	ELLE
Total/NA	Analysis	2320B-2011		1	125033	05/11/21 01:21	DI9Q	ELLE
Total/NA	Prep	351.2			125016	05/11/21 13:58	F8AU	ELLE
Total/NA	Analysis	351.2		1	125593	05/12/21 14:00	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	125988	05/12/21 15:20	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		2	125613	05/12/21 03:37	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: TB_20210506

Lab Sample ID: 410-38735-14

Date Collected: 05/06/21 00:00

Matrix: Water

Date Received: 05/06/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	124782	05/11/21 11:39	HDS6	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp. Job ID: 410-38735-1
Project/Site: Former PES Annual GWS

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
5310 B-2011		Water	Total Carbon
SM5310C		Water	Total Inorganic Carbon

Method Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38735-1

Method	Method Description	Protocol	Laboratory
8260C/UST	Volatile Organic Compounds (GC/MS)	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
RSK-175	Dissolved Gases (GC)	RSK	ELLE
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	ELLE
6010C	Metals (ICP)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
2320B-2011	Alkalinity, Total	SM	ELLE
351.2	Nitrogen, Total Kjeldahl	MCAWW	ELLE
5310 B-2011	Carbon, Total and Total Inorganic	SM	ELLE
5310C-2011	Total Organic Carbon/Persulfate - Ultrav	SM	ELLE
SM5310C	Carbon, Total Inorganic	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
351.2	Nitrogen, Total Kjeldahl	MCAWW	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
8011	Microextraction	SW846	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-38735-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-38735-1	B-165_20210505	Water	05/05/21 09:00	05/06/21 15:20	
410-38735-2	S-442_20210505	Water	05/05/21 08:55	05/06/21 15:20	
410-38735-3	B-39_SL_20210505	Water	05/05/21 09:20	05/06/21 15:20	
410-38735-4	S-446_20210505	Water	05/05/21 10:00	05/06/21 15:20	
410-38735-5	S-44_20210505	Water	05/05/21 10:35	05/06/21 15:20	
410-38735-6	DUP-6_20210505	Water	05/05/21 00:00	05/06/21 15:20	
410-38735-7	S-445_20210505	Water	05/05/21 11:35	05/06/21 15:20	
410-38735-8	S-50_20210505	Water	05/05/21 13:00	05/06/21 15:20	
410-38735-9	B-150_SL_20210505	Water	05/05/21 12:30	05/06/21 15:20	
410-38735-10	S-443_20210505	Water	05/05/21 13:25	05/06/21 15:20	
410-38735-11	S-396_20210505	Water	05/05/21 14:15	05/06/21 15:20	
410-38735-12	S-441_20210505	Water	05/05/21 14:45	05/06/21 15:20	
410-38735-13	B-156_SL_20210505	Water	05/05/21 15:10	05/06/21 15:20	
410-38735-14	TB_20210506	Water	05/06/21 00:00	05/06/21 15:20	

Environmental Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

Acct. # _____ Gr

410-38735-01 Chain of Custody

| | | |

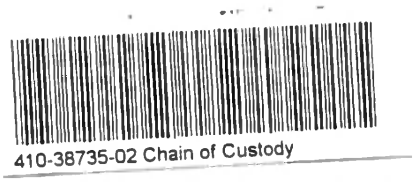
Environmental Analysis Request/Chain of Custody

Eurofins | Lancaster Laboratories Environmental

Acct. # _____ Group # _____ Sample # _____

| | | |

Evergreen Petroleum Short List (June 2016)



VOCs by EPA Method 8260	CAS No.
Benzene	71-43-2
Cumene	98-82-8
Dichloroethane, 1,2-	107-06-2
Ethylbenzene	100-41-4
Ethylene Dibromide*	106-93-4
Methyl tert butyl ether	1634-04-4
Toluene	108-88-3
Trimethylbenzene, 1,2,4-	95-63-6
Trimethylbenzene, 1,3,5-	108-67-8
Xylenes	1330-20-7

SVOCs by EPA Method 8270	CAS No.
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Chrysene	218-01-9
Fluorene	86-73-7
Naphthalene**	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Metals by Method 6010/6020	CAS No.
Lead***	7439-92-1

*Ethylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

**Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

***Metals analysis should be total in soil and dissolved in groundwater.

This list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline and No. 1, 2, 4, 5, 6 Fuel Oils).

Login Sample Receipt Checklist

Client: Stantec Consulting Corp. Job Number: 410-38735-1

Login Number: 38735 **List Source: Eurofins Lancaster Laboratories Env, LLC**
List Number: 1
Creator: Metzger, Katherine A

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	True	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-38814-1
Client Project/Site: Former PHL Refinery DDT Sampling

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Andrew Klingbeil

Authorized for release by:
5/19/2021 11:52:54 AM

Amek Carter, Project Manager
(717)556-7252
Loran.Carter@eurofinset.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
5/19/2021 11:52:54 AM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 6
Client Sample Results 7
Surrogate Summary 10
QC Sample Results 11
QC Association Summary 13
Lab Chronicle 14
Certification Summary 16
Method Summary 17
Sample Summary 18
Chain of Custody 19
Receipt Checklists 20

Definitions/Glossary

Client: Stantec Consulting Corp. Job ID: 410-38814-1
Project/Site: Former PHL Refinery DDT Sampling

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-38814-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-38814-1

Receipt
The samples were received on 5/6/2021 3:20 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.7°C

Receipt Exceptions
The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): S-446_DDT_20210505 (410-38814-3). The container labels list a collection time of 10:03, while the COC lists 10:00.

Sample S-446_DDT_20210505, only 1 container has the incorrect time

Pesticides
Method 8081B: Surrogate recovery for the following sample was outside control limits: S-447_DDT_20210504 (410-38814-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8081B: The following sample was diluted due to the nature of the sample matrix: S-447_DDT_20210504 (410-38814-1). Elevated reporting limits (RLs) are provided.

Method 8081B: Surrogate recovery was outside control limits for the following sample: S-445_DDT_20210505 (410-38814-5). The sample was re-extracted and the surrogate is again outside of the acceptance limits, indicating a matrix effect. The data is reported from the initial trial.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Job ID: 410-38814-1
Project/Site: Former PHL Refinery DDT Sampling

Client Sample ID: S-447_DDT_20210504 — Lab Sample ID: 410-38814-1

No Detections.

Client Sample ID: S-442_DDT_20210505 — Lab Sample ID: 410-38814-2

No Detections.

Client Sample ID: S-446_DDT_20210505 — Lab Sample ID: 410-38814-3

No Detections.

Client Sample ID: S-44_DDT_20210505 — Lab Sample ID: 410-38814-4

No Detections.

Client Sample ID: S-445_DDT_20210505 — Lab Sample ID: 410-38814-5

No Detections.

Client Sample ID: S-50_DDT_20210505 — Lab Sample ID: 410-38814-6

No Detections.

Client Sample ID: S-396_DDT_20210505 — Lab Sample ID: 410-38814-7

No Detections.

Client Sample ID: S-441_DDT_20210505 — Lab Sample ID: 410-38814-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
p,p'-DDD (1C)	0.0085	J	0.033	0.0054	ug/L	1		8081B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: S-447_DDT_20210504 — Lab Sample ID: 410-38814-1

Date Collected: 05/04/21 10:35 — **Matrix: Water**
Date Received: 05/06/21 15:20

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p,p'-DDD (1C)	ND		0.15	0.025	ug/L		05/11/21 19:00	05/12/21 10:25	5
p,p'-DDE (1C)	ND		0.15	0.025	ug/L		05/11/21 19:00	05/12/21 10:25	5
p,p'-DDT (1C)	ND		0.15	0.026	ug/L		05/11/21 19:00	05/12/21 10:25	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*24*	*S1-*	*32 - 149*	*05/11/21 19:00*	*05/12/21 10:25*	*5*
DCB Decachlorobiphenyl (Surr) (2C)	*23*	*S1-*	*32 - 149*	*05/11/21 19:00*	*05/12/21 10:25*	*5*
Tetrachloro-m-xylene (Surr) (1C)	*70*	*p*	*29 - 129*	*05/11/21 19:00*	*05/12/21 10:25*	*5*
Tetrachloro-m-xylene (Surr) (2C)	*146*	*S1+*	*29 - 129*	*05/11/21 19:00*	*05/12/21 10:25*	*5*

Client Sample ID: S-442_DDT_20210505 — Lab Sample ID: 410-38814-2

Date Collected: 05/05/21 08:55 — **Matrix: Water**
Date Received: 05/06/21 15:20

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p,p'-DDD (1C)	ND		0.031	0.0051	ug/L		05/12/21 10:10	05/12/21 23:18	1
p,p'-DDE (1C)	ND		0.031	0.0051	ug/L		05/12/21 10:10	05/12/21 23:18	1
p,p'-DDT (1C)	ND		0.031	0.0053	ug/L		05/12/21 10:10	05/12/21 23:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*45*		*32 - 149*	*05/12/21 10:10*	*05/12/21 23:18*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*43*		*32 - 149*	*05/12/21 10:10*	*05/12/21 23:18*	*1*
Tetrachloro-m-xylene (Surr) (1C)	*67*		*29 - 129*	*05/12/21 10:10*	*05/12/21 23:18*	*1*
Tetrachloro-m-xylene (Surr) (2C)	*59*		*29 - 129*	*05/12/21 10:10*	*05/12/21 23:18*	*1*

Client Sample ID: S-446_DDT_20210505 — Lab Sample ID: 410-38814-3

Date Collected: 05/05/21 10:00 — **Matrix: Water**
Date Received: 05/06/21 15:20

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p,p'-DDD (1C)	ND		0.031	0.0051	ug/L		05/12/21 10:10	05/12/21 23:30	1
p,p'-DDE (1C)	ND		0.031	0.0051	ug/L		05/12/21 10:10	05/12/21 23:30	1
p,p'-DDT (1C)	ND		0.031	0.0053	ug/L		05/12/21 10:10	05/12/21 23:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*38*		*32 - 149*	*05/12/21 10:10*	*05/12/21 23:30*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*34*		*32 - 149*	*05/12/21 10:10*	*05/12/21 23:30*	*1*
Tetrachloro-m-xylene (Surr) (1C)	*64*		*29 - 129*	*05/12/21 10:10*	*05/12/21 23:30*	*1*
Tetrachloro-m-xylene (Surr) (2C)	*63*		*29 - 129*	*05/12/21 10:10*	*05/12/21 23:30*	*1*

Client Sample ID: S-44_DDT_20210505 — Lab Sample ID: 410-38814-4

Date Collected: 05/05/21 10:35 — **Matrix: Water**
Date Received: 05/06/21 15:20

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p,p'-DDD (1C)	ND		0.034	0.0056	ug/L		05/12/21 10:10	05/12/21 23:42	1
p,p'-DDE (1C)	ND		0.034	0.0056	ug/L		05/12/21 10:10	05/12/21 23:42	1
p,p'-DDT (1C)	ND		0.034	0.0058	ug/L		05/12/21 10:10	05/12/21 23:42	1

Client Sample ID: S-44_DDT_20210505 — Lab Sample ID: 410-38814-4

Date Collected: 05/05/21 10:35 **Matrix: Water**
Date Received: 05/06/21 15:20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	52		32 - 149	05/12/21 10:10	05/12/21 23:42	1
DCB Decachlorobiphenyl (Surr) (2C)	48		32 - 149	05/12/21 10:10	05/12/21 23:42	1
Tetrachloro-m-xylene (Surr) (1C)	56		29 - 129	05/12/21 10:10	05/12/21 23:42	1
Tetrachloro-m-xylene (Surr) (2C)	51		29 - 129	05/12/21 10:10	05/12/21 23:42	1

Client Sample ID: S-445_DDT_20210505 — Lab Sample ID: 410-38814-5

Date Collected: 05/05/21 11:35 **Matrix: Water**
Date Received: 05/06/21 15:20

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p,p'-DDD (1C)	ND		0.15	0.026	ug/L		05/12/21 10:10	05/12/21 23:54	5
p,p'-DDE (1C)	ND		0.15	0.026	ug/L		05/12/21 10:10	05/12/21 23:54	5
p,p'-DDT (1C)	ND		0.15	0.027	ug/L		05/12/21 10:10	05/12/21 23:54	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	16	S1-	32 - 149	05/12/21 10:10	05/12/21 23:54	5
DCB Decachlorobiphenyl (Surr) (2C)	16	S1-	32 - 149	05/12/21 10:10	05/12/21 23:54	5
Tetrachloro-m-xylene (Surr) (1C)	30		29 - 129	05/12/21 10:10	05/12/21 23:54	5
Tetrachloro-m-xylene (Surr) (2C)	33		29 - 129	05/12/21 10:10	05/12/21 23:54	5

Client Sample ID: S-50_DDT_20210505 — Lab Sample ID: 410-38814-6

Date Collected: 05/05/21 13:00 **Matrix: Water**
Date Received: 05/06/21 15:20

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p,p'-DDD (1C)	ND		0.18	0.030	ug/L		05/12/21 10:10	05/13/21 00:06	5
p,p'-DDE (1C)	ND		0.18	0.030	ug/L		05/12/21 10:10	05/13/21 00:06	5
p,p'-DDT (1C)	ND		0.18	0.031	ug/L		05/12/21 10:10	05/13/21 00:06	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	49		32 - 149	05/12/21 10:10	05/13/21 00:06	5
DCB Decachlorobiphenyl (Surr) (2C)	44		32 - 149	05/12/21 10:10	05/13/21 00:06	5
Tetrachloro-m-xylene (Surr) (1C)	53		29 - 129	05/12/21 10:10	05/13/21 00:06	5
Tetrachloro-m-xylene (Surr) (2C)	66		29 - 129	05/12/21 10:10	05/13/21 00:06	5

Client Sample ID: S-396_DDT_20210505 — Lab Sample ID: 410-38814-7

Date Collected: 05/05/21 14:15 **Matrix: Water**
Date Received: 05/06/21 15:20

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p,p'-DDD (1C)	ND		0.033	0.0054	ug/L		05/12/21 10:10	05/13/21 00:18	1
p,p'-DDE (2C)	ND		0.033	0.0054	ug/L		05/12/21 10:10	05/13/21 00:18	1
p,p'-DDT (1C)	ND		0.033	0.0056	ug/L		05/12/21 10:10	05/13/21 00:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	45		32 - 149	05/12/21 10:10	05/13/21 00:18	1
DCB Decachlorobiphenyl (Surr) (2C)	40		32 - 149	05/12/21 10:10	05/13/21 00:18	1
Tetrachloro-m-xylene (Surr) (1C)	54		29 - 129	05/12/21 10:10	05/13/21 00:18	1
Tetrachloro-m-xylene (Surr) (2C)	49		29 - 129	05/12/21 10:10	05/13/21 00:18	1

Client: Stantec Consulting Corp.
Project/Site: Former PHL Refinery DDT Sampling

Job ID: 410-38814-1

Client Sample ID: S-441_DDT_20210505
Date Collected: 05/05/21 14:45
Date Received: 05/06/21 15:20

Lab Sample ID: 410-38814-8
Matrix: Water

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p,p'-DDD (1C)	**0.0085**	**J**	0.033	0.0054	ug/L		05/12/21 10:10	05/13/21 00:30	1
p,p'-DDE (1C)	ND		0.033	0.0054	ug/L		05/12/21 10:10	05/13/21 00:30	1
p,p'-DDT (1C)	ND		0.033	0.0056	ug/L		05/12/21 10:10	05/13/21 00:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*33*		*32 - 149*	*05/12/21 10:10*	*05/13/21 00:30*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*32*		*32 - 149*	*05/12/21 10:10*	*05/13/21 00:30*	*1*
Tetrachloro-m-xylene (Surr) (1C)	*70*		*29 - 129*	*05/12/21 10:10*	*05/13/21 00:30*	*1*
Tetrachloro-m-xylene (Surr) (2C)	*67*		*29 - 129*	*05/12/21 10:10*	*05/13/21 00:30*	*1*

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Former PHL Refinery DDT Sampling

Job ID: 410-38814-1

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCB1	DCB2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(32-149)	(32-149)	(29-129)	(29-129)
410-38814-1	S-447_DDT_20210504	24 S1-	23 S1-	70 p	146 S1+
410-38814-2	S-442_DDT_20210505	45	43	67	59
410-38814-3	S-446_DDT_20210505	38	34	64	63
410-38814-4	S-44_DDT_20210505	52	48	56	51
410-38814-5	S-445_DDT_20210505	16 S1-	16 S1-	30	33
410-38814-6	S-50_DDT_20210505	49	44	53	66
410-38814-7	S-396_DDT_20210505	45	40	54	49
410-38814-8	S-441_DDT_20210505	33	32	70	67
LCS 410-125117/2-A	Lab Control Sample	53	53	76	80
LCS 410-125318/2-A	Lab Control Sample	50	49	54	58
LCSD 410-125318/3-A	Lab Control Sample Dup	36	36	69	71
MB 410-125117/1-A	Method Blank	92	87	70	79
MB 410-125318/1-A	Method Blank	54	51	66	70

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-125117/1-A
Matrix: Water
Analysis Batch: 125279

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 125117

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p,p'-DDD (1C)	ND		0.030	0.0050	ug/L		05/11/21 19:00	05/12/21 08:23	1
p,p'-DDE (1C)	ND		0.030	0.0050	ug/L		05/11/21 19:00	05/12/21 08:23	1
p,p'-DDT (1C)	ND		0.030	0.0052	ug/L		05/11/21 19:00	05/12/21 08:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*92*		*32 - 149*	*05/11/21 19:00*	*05/12/21 08:23*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*87*		*32 - 149*	*05/11/21 19:00*	*05/12/21 08:23*	*1*
Tetrachloro-m-xylene (Surr) (1C)	*70*		*29 - 129*	*05/11/21 19:00*	*05/12/21 08:23*	*1*
Tetrachloro-m-xylene (Surr) (2C)	*79*		*29 - 129*	*05/11/21 19:00*	*05/12/21 08:23*	*1*

Lab Sample ID: LCS 410-125117/2-A
Matrix: Water
Analysis Batch: 125279

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 125117

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
p,p'-DDD (2C)	0.201	0.205		ug/L		102	42 - 148
p,p'-DDE (1C)	0.201	0.168		ug/L		84	22 - 138
p,p'-DDT (2C)	0.201	0.209		ug/L		104	40 - 145

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr) (1C)	*53*		*32 - 149*
DCB Decachlorobiphenyl (Surr) (2C)	*53*		*32 - 149*
Tetrachloro-m-xylene (Surr) (1C)	*76*		*29 - 129*
Tetrachloro-m-xylene (Surr) (2C)	*80*		*29 - 129*

Lab Sample ID: MB 410-125318/1-A
Matrix: Water
Analysis Batch: 125741

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 125318

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p,p'-DDD (1C)	ND		0.030	0.0050	ug/L		05/12/21 10:10	05/12/21 20:52	1
p,p'-DDE (1C)	ND		0.030	0.0050	ug/L		05/12/21 10:10	05/12/21 20:52	1
p,p'-DDT (1C)	ND		0.030	0.0052	ug/L		05/12/21 10:10	05/12/21 20:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*54*		*32 - 149*	*05/12/21 10:10*	*05/12/21 20:52*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*51*		*32 - 149*	*05/12/21 10:10*	*05/12/21 20:52*	*1*
Tetrachloro-m-xylene (Surr) (1C)	*66*		*29 - 129*	*05/12/21 10:10*	*05/12/21 20:52*	*1*
Tetrachloro-m-xylene (Surr) (2C)	*70*		*29 - 129*	*05/12/21 10:10*	*05/12/21 20:52*	*1*

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 410-125318/2-A
Matrix: Water
Analysis Batch: 125741

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 125318

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
p,p'-DDD (1C)			0.201	0.202		ug/L		101	42 - 148		
p,p'-DDE (1C)			0.201	0.166		ug/L		82	22 - 138		
p,p'-DDT (1C)			0.201	0.196		ug/L		97	40 - 145		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr) (1C)	*50*		*32 - 149*
DCB Decachlorobiphenyl (Surr) (2C)	*49*		*32 - 149*
Tetrachloro-m-xylene (Surr) (1C)	*54*		*29 - 129*
Tetrachloro-m-xylene (Surr) (2C)	*58*		*29 - 129*

Lab Sample ID: LCSD 410-125318/3-A
Matrix: Water
Analysis Batch: 125741

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 125318

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
p,p'-DDD (1C)			0.201	0.205		ug/L		102	42 - 148	1	30
p,p'-DDE (1C)			0.201	0.168		ug/L		83	22 - 138	1	30
p,p'-DDT (1C)			0.201	0.191		ug/L		95	40 - 145	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr) (1C)	*36*		*32 - 149*
DCB Decachlorobiphenyl (Surr) (2C)	*36*		*32 - 149*
Tetrachloro-m-xylene (Surr) (1C)	*69*		*29 - 129*
Tetrachloro-m-xylene (Surr) (2C)	*71*		*29 - 129*

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Former PHL Refinery DDT Sampling

Job ID: 410-38814-1

GC Semi VOA

Prep Batch: 125117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38814-1	S-447_DDT_20210504	Total/NA	Water	3510C	
MB 410-125117/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-125117/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 125279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38814-1	S-447_DDT_20210504	Total/NA	Water	8081B	125117
MB 410-125117/1-A	Method Blank	Total/NA	Water	8081B	125117
LCS 410-125117/2-A	Lab Control Sample	Total/NA	Water	8081B	125117

Prep Batch: 125318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38814-2	S-442_DDT_20210505	Total/NA	Water	3510C	
410-38814-3	S-446_DDT_20210505	Total/NA	Water	3510C	
410-38814-4	S-44_DDT_20210505	Total/NA	Water	3510C	
410-38814-5	S-445_DDT_20210505	Total/NA	Water	3510C	
410-38814-6	S-50_DDT_20210505	Total/NA	Water	3510C	
410-38814-7	S-396_DDT_20210505	Total/NA	Water	3510C	
410-38814-8	S-441_DDT_20210505	Total/NA	Water	3510C	
MB 410-125318/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-125318/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-125318/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 125741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-38814-2	S-442_DDT_20210505	Total/NA	Water	8081B	125318
410-38814-3	S-446_DDT_20210505	Total/NA	Water	8081B	125318
410-38814-4	S-44_DDT_20210505	Total/NA	Water	8081B	125318
410-38814-5	S-445_DDT_20210505	Total/NA	Water	8081B	125318
410-38814-6	S-50_DDT_20210505	Total/NA	Water	8081B	125318
410-38814-7	S-396_DDT_20210505	Total/NA	Water	8081B	125318
410-38814-8	S-441_DDT_20210505	Total/NA	Water	8081B	125318
MB 410-125318/1-A	Method Blank	Total/NA	Water	8081B	125318
LCS 410-125318/2-A	Lab Control Sample	Total/NA	Water	8081B	125318
LCSD 410-125318/3-A	Lab Control Sample Dup	Total/NA	Water	8081B	125318

Lab Chronicle

Client: Stantec Consulting Corp. Job ID: 410-38814-1
Project/Site: Former PHL Refinery DDT Sampling

Client Sample ID: S-447_DDT_20210504 — Lab Sample ID: 410-38814-1

Date Collected: 05/04/21 10:35 **Matrix: Water**
Date Received: 05/06/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			125117	05/11/21 19:00	DFX4	ELLE
Total/NA	Analysis	8081B		5	125279	05/12/21 10:25	UAMZ	ELLE

Client Sample ID: S-442_DDT_20210505 — Lab Sample ID: 410-38814-2

Date Collected: 05/05/21 08:55 **Matrix: Water**
Date Received: 05/06/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			125318	05/12/21 10:10	R9CT	ELLE
Total/NA	Analysis	8081B		1	125741	05/12/21 23:18	UAMZ	ELLE

Client Sample ID: S-446_DDT_20210505 — Lab Sample ID: 410-38814-3

Date Collected: 05/05/21 10:00 **Matrix: Water**
Date Received: 05/06/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			125318	05/12/21 10:10	R9CT	ELLE
Total/NA	Analysis	8081B		1	125741	05/12/21 23:30	UAMZ	ELLE

Client Sample ID: S-44_DDT_20210505 — Lab Sample ID: 410-38814-4

Date Collected: 05/05/21 10:35 **Matrix: Water**
Date Received: 05/06/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			125318	05/12/21 10:10	R9CT	ELLE
Total/NA	Analysis	8081B		1	125741	05/12/21 23:42	UAMZ	ELLE

Client Sample ID: S-445_DDT_20210505 — Lab Sample ID: 410-38814-5

Date Collected: 05/05/21 11:35 **Matrix: Water**
Date Received: 05/06/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			125318	05/12/21 10:10	R9CT	ELLE
Total/NA	Analysis	8081B		5	125741	05/12/21 23:54	UAMZ	ELLE

Client Sample ID: S-50_DDT_20210505 — Lab Sample ID: 410-38814-6

Date Collected: 05/05/21 13:00 **Matrix: Water**
Date Received: 05/06/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			125318	05/12/21 10:10	R9CT	ELLE
Total/NA	Analysis	8081B		5	125741	05/13/21 00:06	UAMZ	ELLE

Lab Chronicle

Client: Stantec Consulting Corp.
Job ID: 410-38814-1
Project/Site: Former PHL Refinery DDT Sampling

Client Sample ID: S-396_DDT_20210505
Lab Sample ID: 410-38814-7

Date Collected: 05/05/21 14:15
Matrix: Water
Date Received: 05/06/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			125318	05/12/21 10:10	R9CT	ELLE
Total/NA	Analysis	8081B		1	125741	05/13/21 00:18	UAMZ	ELLE

Client Sample ID: S-441_DDT_20210505
Lab Sample ID: 410-38814-8

Date Collected: 05/05/21 14:45
Matrix: Water
Date Received: 05/06/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			125318	05/12/21 10:10	R9CT	ELLE
Total/NA	Analysis	8081B		1	125741	05/13/21 00:30	UAMZ	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp. Job ID: 410-38814-1
Project/Site: Former PHL Refinery DDT Sampling

Laboratory: Eurofins Lancaster Laboratories Env, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-22

Method Summary

Client: Stantec Consulting Corp.
Job ID: 410-38814-1
Project/Site: Former PHL Refinery DDT Sampling

Method	Method Description	Protocol	Laboratory
8081B	Organochlorine Pesticides (GC)	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Job ID: 410-38814-1
Project/Site: Former PHL Refinery DDT Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-38814-1	S-447_DDT_20210504	Water	05/04/21 10:35	05/06/21 15:20	
410-38814-2	S-442_DDT_20210505	Water	05/05/21 08:55	05/06/21 15:20	
410-38814-3	S-446_DDT_20210505	Water	05/05/21 10:00	05/06/21 15:20	
410-38814-4	S-44_DDT_20210505	Water	05/05/21 10:35	05/06/21 15:20	
410-38814-5	S-445_DDT_20210505	Water	05/05/21 11:35	05/06/21 15:20	
410-38814-6	S-50_DDT_20210505	Water	05/05/21 13:00	05/06/21 15:20	
410-38814-7	S-396_DDT_20210505	Water	05/05/21 14:15	05/06/21 15:20	
410-38814-8	S-441_DDT_20210505	Water	05/05/21 14:45	05/06/21 15:20	

Environ ...equest/Chain of Custody

eurofins | Lancaster Laboratories Environmental

410-38814 Chain of Custody

Acct. # _____ ...e # _____

Client:	Evergreen c/o Stantec		
Project Name/#:	Former PHL Refinery DDT Sampling	Site ID #:	16657
Project Manager:	Andrew Klingbeil, Andrew Bradley	P.O. #:	213403363
Sampler:	Dane Hopkins, Maddie Bredehoeft, Andrea Hill	PWSID #:	
Phone #:	610.840.2541	Quote #:	

State where sample(s) were collected: PA

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Sediment	Water	Ground	Potable	Surface	NPDES	Other:	Trip Blank / Field Blank	Total # of Containers	4,4'-DDT by SW 846 EPA 8081	4,4'-DDE by SW 846 EPA 8081	4,4'-DDD by SW 846 EPA 8081	Remarks
															Preservation Codes: NP	NP	NP	
S-447_DDT_20210504	5/4/2021	10:35	X				X							2	X	X	X	
S-442_DDT_20210505	5/5/2021	8:55	X				X							2	X	X	X	
S-446_DDT_20210505	5/5/2021	10:00	X				X							2	X	X	X	
S-44_DDT_20210505	5/5/2021	10:35	X				X							2	X	X	X	
S-445_DDT_20210505	5/5/2021	11:35	X				X							2	X	X	X	
S-50_DDT_20210505	5/5/2021	13:00	X				X							2	X	X	X	
S-396_DDT_20210505	5/5/2021	14:15	X				X							2	X	X	X	
S-441_DDT_20210505	5/5/2021	14:45	X				X							2	X	X	X	

For Lab Use Only

SF #: _____

SCR #: _____

Preservation Codes

H = HCl T = Thiosulfate

N = HNO_3 B = NaOH

S = H_2SO_4 P = H_3PO_4

O = Other NP = Non-Preserved

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐

(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed:

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: aklingbeil@stantec.com, abradley@stantec.com

Phone: 610.840.2541

Data Package Options (please check if required)

Type I (Validation/non-CLP) ☐ MA MCP ☐

Type III (Reduced non-CLP) ☐ CT RCP ☐

Type IV (CLP SOW) ☐ TX TRRP-13 ☐

Type VI (Raw Data Only) ☐

EDD Required? Yes ☑ No ☐ If yes, format: EQUIS

Relinquished by:	Date	Time	Received by:	Date	Time
	5/6/2021	1225		5/6	1225
	5/6	1455			
				5-6-21	1520

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other X

Temperature upon receipt 3.7 °C

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-38814-1

Login Number: 38814

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Hollinger, Zane T

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

eurofins | Environment Testing America



ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-39001-1
Client Project/Site: Former PES Annual GWS

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Mr. Andrew Bradley

Authorized for release by:
5/20/2021 10:00:10 AM

Amek Carter, Project Manager
(717)556-7252
Loran.Carter@eurofinset.com

LINKS

Review your project results through TotalAccess

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
5/20/2021 10:00:10 AM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 6
Detection Summary 7
Client Sample Results 11
Surrogate Summary 25
QC Sample Results 28
QC Association Summary 44
Lab Chronicle 52
Certification Summary 57
Method Summary 58
Sample Summary 59
Chain of Custody 60
Receipt Checklists 62

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-39001-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-39001-1

Receipt
The samples were received on 5/7/2021 5:50 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 5.3°C and 5.4°C

GC/MS VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
Method RSK_175: The method requirement for no headspace was not met. The following volatile samples were analyzed for methane with significant headspace in the sample container(s): URS-5_20210506 (410-39001-3) and S-449_20210506 (410-39001-5). Significant headspace is defined as a bubble greater than 6 mm in diameter.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8011: The 1,1,2,2-Tetrachloroethane surrogate recovery for the following samples was outside acceptance limits (high biased) on the confirmation column due to matrix interference: URS-5_20210506 (410-39001-3). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

Method 8011: The 1,1,2,2-Tetrachloroethane surrogate recovery for the following samples was outside acceptance limits (high biased) on the primary column due to matrix interference: S-378_20210506 (410-39001-8). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 5310C: The following sample was analyzed in duplicate: S-87I_20210506 (410-39001-4). The RPD between the two replicates was > 10%. Re-analysis was performed with RPD >10%.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39001-1

Client Sample ID: S-444_20210506 — Lab Sample ID: 410-39001-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	540		5.0	2.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	25		25	1.5	ug/L	5		8260C/UST	Total/NA
Toluene	150		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	360		30	7.0	ug/L	5		8260C/UST	Total/NA
Benzene	5.6		5.0	1.0	ug/L	5		8260C/UST	Total/NA
1,2,4-Trimethylbenzene	24	J	25	5.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	50		25	1.0	ug/L	5		8260C/UST	Total/NA
Fluorene	0.16	J	0.52	0.12	ug/L	1		8270D	Total/NA
Naphthalene	85		0.52	0.10	ug/L	1		8270D	Total/NA
Ethane (1C)	2.0	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	24000		1000	600	ug/L	200		RSK-175	Total/NA
Calcium	30000		500	96	ug/L	1		6010C	Total Recoverable
Iron	20000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	170000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	580	J	1000	500	ug/L	1		351.2	Total/NA
Total Carbon	42000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	2400		2000	1000	ug/L	2		5310C-2011	Total/NA
Total Inorganic Carbon	40000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-42I_20210506 — Lab Sample ID: 410-39001-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloroethane	0.90	J	1.0	0.30	ug/L	1		8260C/UST	Total/NA
Methyl tert-butyl ether	6.6		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Benzene	0.24	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
t-Butyl alcohol	12	J	50	12	ug/L	1		8260C/UST	Total/NA
Methane (1C)	86		5.0	3.0	ug/L	1		RSK-175	Total/NA
Sulfate	120000		10000	3000	ug/L	10		EPA 300.0 R2.1	Total/NA
Calcium	65000		500	96	ug/L	1		6010C	Total Recoverable
Iron	34000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	260000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	4200		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	71000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	7800		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	63000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: URS-5_20210506 — Lab Sample ID: 410-39001-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	680		5.0	2.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	68		25	1.5	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	3300		30	7.0	ug/L	5		8260C/UST	Total/NA
1,2,4-Trimethylbenzene	230		25	5.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	26		25	1.0	ug/L	5		8260C/UST	Total/NA
t-Butyl alcohol	80	J	250	60	ug/L	5		8260C/UST	Total/NA
Toluene - DL	8700		50	10	ug/L	50		8260C/UST	Total/NA
Benzene - DL	3900		50	10	ug/L	50		8260C/UST	Total/NA
Anthracene	3.4		0.53	0.11	ug/L	1		8270D	Total/NA
Fluorene	14		0.53	0.13	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: URS-5_20210506 (Continued)

Lab Sample ID: 410-39001-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	26		0.53	0.12	ug/L	1		8270D	Total/NA
Pyrene	2.4		0.53	0.11	ug/L	1		8270D	Total/NA
Naphthalene - DL	280		2.6	0.53	ug/L	5		8270D	Total/NA
Ethane (1C)	8.2		5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	17000		500	300	ug/L	100		RSK-175	Total/NA
Calcium	340000		500	96	ug/L	1		6010C	Total Recoverable
Iron	100	J	200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	1100000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	5900		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	340000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	66000		10000	5000	ug/L	10		5310C-2011	Total/NA
Total Inorganic Carbon	270000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-87I_20210506

Lab Sample ID: 410-39001-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	4.5	J	5.0	1.0	ug/L	5		8260C/UST	Total/NA
Methyl tert-butyl ether	250		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Benzene	1.9	J	5.0	1.0	ug/L	5		8260C/UST	Total/NA
t-Butyl alcohol - DL	180000		25000	6000	ug/L	500		8260C/UST	Total/NA
Methane (1C)	160		5.0	3.0	ug/L	1		RSK-175	Total/NA
Sulfate	24000		5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	70000		500	96	ug/L	1		6010C	Total Recoverable
Iron	34000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	440000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	760	J	1000	500	ug/L	1		351.2	Total/NA
Total Carbon	300000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	65000		2000	1000	ug/L	2		5310C-2011	Total/NA
Total Inorganic Carbon	240000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-449_20210506

Lab Sample ID: 410-39001-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	30		5.0	2.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	11	J	25	1.5	ug/L	5		8260C/UST	Total/NA
Toluene	200		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	130		30	7.0	ug/L	5		8260C/UST	Total/NA
Methyl tert-butyl ether	550		5.0	1.0	ug/L	5		8260C/UST	Total/NA
1,2,4-Trimethylbenzene	9.4	J	25	5.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	37		25	1.0	ug/L	5		8260C/UST	Total/NA
t-Butyl alcohol	240	J	250	60	ug/L	5		8260C/UST	Total/NA
Benzene - DL	3700		50	10	ug/L	50		8260C/UST	Total/NA
Naphthalene	2.5		0.52	0.10	ug/L	1		8270D	Total/NA
Pyrene	0.15	J	0.52	0.10	ug/L	1		8270D	Total/NA
Ethane (1C)	7.0		5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	21000		1000	600	ug/L	200		RSK-175	Total/NA
Calcium	29000		500	96	ug/L	1		6010C	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: S-449_20210506 (Continued)

Lab Sample ID: 410-39001-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	19000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	180000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	600	J	1000	500	ug/L	1		351.2	Total/NA
Total Carbon	47000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	7900		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	39000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-448_20210506

Lab Sample ID: 410-39001-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	2.9		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Benzene	3.5		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Methane (1C)	250		5.0	3.0	ug/L	1		RSK-175	Total/NA
Sulfate	140000		10000	3000	ug/L	10		EPA 300.0 R2.1	Total/NA
Calcium	190000		500	96	ug/L	1		6010C	Total Recoverable
Iron	7900		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	630000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	770	J	1000	500	ug/L	1		351.2	Total/NA
Total Carbon	120000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	10000		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	110000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-273_20210506

Lab Sample ID: 410-39001-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	58		1.0	0.40	ug/L	1		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	21		5.0	0.30	ug/L	1		8260C/UST	Total/NA
Toluene	9.9		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Xylenes, Total	260		6.0	1.4	ug/L	1		8260C/UST	Total/NA
Methyl tert-butyl ether	55		1.0	0.20	ug/L	1		8260C/UST	Total/NA
1,2,4-Trimethylbenzene	23		5.0	1.0	ug/L	1		8260C/UST	Total/NA
Isopropylbenzene	8.4		5.0	0.20	ug/L	1		8260C/UST	Total/NA
t-Butyl alcohol	210		50	12	ug/L	1		8260C/UST	Total/NA
Benzene - DL	420		10	2.0	ug/L	10		8260C/UST	Total/NA
Fluorene	0.29	J	0.57	0.14	ug/L	1		8270D	Total/NA
Ethane (1C)	1.6	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	12000		250	150	ug/L	50		RSK-175	Total/NA
Calcium	71000		500	96	ug/L	1		6010C	Total Recoverable
Iron	14000		200	40	ug/L	1		6010C	Total Recoverable
Lead	0.40	J	0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	330000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	5000		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	95000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	11000		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	84000		2000	600	ug/L	1		SM5310C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39001-1

Client Sample ID: S-378_20210506 — Lab Sample ID: 410-39001-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	910		5.0	2.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	220		25	1.5	ug/L	5		8260C/UST	Total/NA
Toluene	270		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	730		30	7.0	ug/L	5		8260C/UST	Total/NA
1,2,4-Trimethylbenzene	570		25	5.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	43		25	1.0	ug/L	5		8260C/UST	Total/NA
Benzene - DL	1500		50	10	ug/L	50		8260C/UST	Total/NA
Fluorene	0.13	J	0.52	0.12	ug/L	1		8270D	Total/NA
Naphthalene - DL	220		2.6	0.52	ug/L	5		8270D	Total/NA
Ethane (1C)	1.3	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	24000		1000	600	ug/L	200		RSK-175	Total/NA
Calcium	110000		500	96	ug/L	1		6010C	Total Recoverable
Iron	43000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	390000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	1400		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	97000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	12000		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	85000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: TB_20210507 — Lab Sample ID: 410-39001-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloroethane	0.67	J	1.0	0.30	ug/L	1		8260C/UST	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: S-444_20210506
Date Collected: 05/06/21 08:55
Date Received: 05/07/21 17:50

Lab Sample ID: 410-39001-1
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**540**		5.0	2.0	ug/L			05/12/21 16:12	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			05/12/21 16:12	5
1,3,5-Trimethylbenzene	**25**		25	1.5	ug/L			05/12/21 16:12	5
Toluene	**150**		5.0	1.0	ug/L			05/12/21 16:12	5
Xylenes, Total	**360**		30	7.0	ug/L			05/12/21 16:12	5
Methyl tert-butyl ether	ND		5.0	1.0	ug/L			05/12/21 16:12	5
Benzene	**5.6**		5.0	1.0	ug/L			05/12/21 16:12	5
1,2,4-Trimethylbenzene	**24**	**J**	25	5.0	ug/L			05/12/21 16:12	5
Isopropylbenzene	**50**		25	1.0	ug/L			05/12/21 16:12	5
t-Butyl alcohol	ND		250	60	ug/L			05/12/21 16:12	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*80 - 120*		*05/12/21 16:12*	*5*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*		*05/12/21 16:12*	*5*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*05/12/21 16:12*	*5*
Toluene-d8 (Surr)	*103*		*80 - 120*		*05/12/21 16:12*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.52	0.10	ug/L		05/13/21 09:50	05/14/21 18:46	1
Benzo[a]anthracene	ND		0.52	0.10	ug/L		05/13/21 09:50	05/14/21 18:46	1
Benzo[a]pyrene	ND		0.52	0.11	ug/L		05/13/21 09:50	05/14/21 18:46	1
Benzo[b]fluoranthene	ND		0.52	0.10	ug/L		05/13/21 09:50	05/14/21 18:46	1
Benzo[g,h,i]perylene	ND		0.52	0.10	ug/L		05/13/21 09:50	05/14/21 18:46	1
Chrysene	ND		0.52	0.10	ug/L		05/13/21 09:50	05/14/21 18:46	1
Fluorene	**0.16**	**J**	0.52	0.12	ug/L		05/13/21 09:50	05/14/21 18:46	1
Naphthalene	**85**		0.52	0.10	ug/L		05/13/21 09:50	05/14/21 18:46	1
Phenanthrene	ND		0.52	0.11	ug/L		05/13/21 09:50	05/14/21 18:46	1
Pyrene	ND		0.52	0.10	ug/L		05/13/21 09:50	05/14/21 18:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*80*		*44 - 102*	*05/13/21 09:50*	*05/14/21 18:46*	*1*
Nitrobenzene-d5 (Surr)	*79*		*23 - 128*	*05/13/21 09:50*	*05/14/21 18:46*	*1*
p-Terphenyl-d14 (Surr)	*70*		*31 - 113*	*05/13/21 09:50*	*05/14/21 18:46*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**2.0**	**J**	5.0	1.0	ug/L		05/10/21 10:11	05/10/21 21:40	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/10/21 10:11	05/10/21 21:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*97*		*28 - 140*	*05/10/21 10:11*	*05/10/21 21:40*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**24000**		1000	600	ug/L		05/11/21 07:52	05/11/21 12:42	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*97*		*28 - 140*	*05/11/21 07:52*	*05/11/21 12:42*	*200*

Client Sample ID: S-444_20210506

Lab Sample ID: 410-39001-1

Date Collected: 05/06/21 08:55

Matrix: Water

Date Received: 05/07/21 17:50

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0095	ug/L		05/12/21 17:40	05/13/21 09:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*114*		*46 - 136*	*05/12/21 17:40*	*05/13/21 09:23*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*88*		*46 - 136*	*05/12/21 17:40*	*05/13/21 09:23*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			05/11/21 11:49	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**30000**		500	96	ug/L		05/10/21 17:26	05/11/21 18:01	1
Iron	**20000**		200	40	ug/L		05/10/21 17:26	05/11/21 18:01	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/11/21 03:58	05/11/21 21:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**170000**		8000	8000	ug/L			05/13/21 01:33	1
Total Kjeldahl Nitrogen	**580**	**J**	1000	500	ug/L		05/13/21 07:15	05/19/21 14:53	1
Total Carbon	**42000**		10000	5000	ug/L			05/12/21 15:31	10
Total Organic Carbon	**2400**		2000	1000	ug/L			05/13/21 05:52	2
Total Inorganic Carbon	**40000**		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: S-42I_20210506

Lab Sample ID: 410-39001-2

Date Collected: 05/06/21 08:25

Matrix: Water

Date Received: 05/07/21 17:50

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/12/21 12:11	1
1,2-Dichloroethane	**0.90**	**J**	1.0	0.30	ug/L			05/12/21 12:11	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/12/21 12:11	1
Toluene	ND		1.0	0.20	ug/L			05/12/21 12:11	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/12/21 12:11	1
Methyl tert-butyl ether	**6.6**		1.0	0.20	ug/L			05/12/21 12:11	1
Benzene	**0.24**	**J**	1.0	0.20	ug/L			05/12/21 12:11	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/12/21 12:11	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/12/21 12:11	1
t-Butyl alcohol	**12**	**J**	50	12	ug/L			05/12/21 12:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 120*		*05/12/21 12:11*	*1*
4-Bromofluorobenzene (Surr)	*107*		*80 - 120*		*05/12/21 12:11*	*1*
Dibromofluoromethane (Surr)	*100*		*80 - 120*		*05/12/21 12:11*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*05/12/21 12:11*	*1*

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39001-1

Client Sample ID: S-42I_20210506

Date Collected: 05/06/21 08:25
Date Received: 05/07/21 17:50

Lab Sample ID: 410-39001-2

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.56	0.11	ug/L		05/13/21 09:50	05/14/21 19:16	1
Benzo[a]anthracene	ND		0.56	0.11	ug/L		05/13/21 09:50	05/14/21 19:16	1
Benzo[a]pyrene	ND		0.56	0.12	ug/L		05/13/21 09:50	05/14/21 19:16	1
Benzo[b]fluoranthene	ND		0.56	0.11	ug/L		05/13/21 09:50	05/14/21 19:16	1
Benzo[g,h,i]perylene	ND		0.56	0.11	ug/L		05/13/21 09:50	05/14/21 19:16	1
Chrysene	ND		0.56	0.11	ug/L		05/13/21 09:50	05/14/21 19:16	1
Fluorene	ND		0.56	0.14	ug/L		05/13/21 09:50	05/14/21 19:16	1
Naphthalene	ND		0.56	0.11	ug/L		05/13/21 09:50	05/14/21 19:16	1
Phenanthrene	ND		0.56	0.12	ug/L		05/13/21 09:50	05/14/21 19:16	1
Pyrene	ND		0.56	0.11	ug/L		05/13/21 09:50	05/14/21 19:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*70*		*44 - 102*	*05/13/21 09:50*	*05/14/21 19:16*	*1*
Nitrobenzene-d5 (Surr)	*77*		*23 - 128*	*05/13/21 09:50*	*05/14/21 19:16*	*1*
p-Terphenyl-d14 (Surr)	*85*		*31 - 113*	*05/13/21 09:50*	*05/14/21 19:16*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/11/21 07:52	05/11/21 10:01	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/11/21 07:52	05/11/21 10:01	1
Methane (1C)	**86**		5.0	3.0	ug/L		05/11/21 07:52	05/11/21 10:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*79*		*28 - 140*	*05/11/21 07:52*	*05/11/21 10:01*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0095	ug/L		05/12/21 17:40	05/13/21 09:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*87*		*46 - 136*	*05/12/21 17:40*	*05/13/21 09:40*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*88*		*46 - 136*	*05/12/21 17:40*	*05/13/21 09:40*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**120000**		10000	3000	ug/L			05/11/21 12:04	10

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**65000**		500	96	ug/L		05/10/21 17:12	05/12/21 21:32	1
Iron	**34000**		200	40	ug/L		05/10/21 17:12	05/12/21 21:32	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/11/21 03:58	05/11/21 22:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**260000**		8000	8000	ug/L			05/13/21 01:27	1
Total Kjeldahl Nitrogen	**4200**		1000	500	ug/L		05/13/21 07:15	05/19/21 14:36	1
Total Carbon	**71000**		10000	5000	ug/L			05/12/21 16:04	10
Total Organic Carbon	**7800**		1000	500	ug/L			05/13/21 06:08	1

Client Sample ID: S-42I_20210506

Lab Sample ID: 410-39001-2

Date Collected: 05/06/21 08:25

Matrix: Water

Date Received: 05/07/21 17:50

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Inorganic Carbon	**63000**		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: URS-5_20210506

Lab Sample ID: 410-39001-3

Date Collected: 05/06/21 10:21

Matrix: Water

Date Received: 05/07/21 17:50

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**680**		5.0	2.0	ug/L			05/12/21 17:00	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			05/12/21 17:00	5
1,3,5-Trimethylbenzene	**68**		25	1.5	ug/L			05/12/21 17:00	5
Xylenes, Total	**3300**		30	7.0	ug/L			05/12/21 17:00	5
Methyl tert-butyl ether	ND		5.0	1.0	ug/L			05/12/21 17:00	5
1,2,4-Trimethylbenzene	**230**		25	5.0	ug/L			05/12/21 17:00	5
Isopropylbenzene	**26**		25	1.0	ug/L			05/12/21 17:00	5
t-Butyl alcohol	**80**	**J**	250	60	ug/L			05/12/21 17:00	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*80 - 120*		*05/12/21 17:00*	*5*
4-Bromofluorobenzene (Surr)	*114*		*80 - 120*		*05/12/21 17:00*	*5*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*05/12/21 17:00*	*5*
Toluene-d8 (Surr)	*108*		*80 - 120*		*05/12/21 17:00*	*5*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	**8700**		50	10	ug/L			05/12/21 17:24	50
Benzene	**3900**		50	10	ug/L			05/12/21 17:24	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*80 - 120*		*05/12/21 17:24*	*50*
4-Bromofluorobenzene (Surr)	*108*		*80 - 120*		*05/12/21 17:24*	*50*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*05/12/21 17:24*	*50*
Toluene-d8 (Surr)	*104*		*80 - 120*		*05/12/21 17:24*	*50*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**3.4**		0.53	0.11	ug/L		05/13/21 09:50	05/14/21 19:46	1
Benzo[a]anthracene	ND		0.53	0.11	ug/L		05/13/21 09:50	05/14/21 19:46	1
Benzo[a]pyrene	ND		0.53	0.12	ug/L		05/13/21 09:50	05/14/21 19:46	1
Benzo[b]fluoranthene	ND		0.53	0.11	ug/L		05/13/21 09:50	05/14/21 19:46	1
Benzo[g,h,i]perylene	ND		0.53	0.11	ug/L		05/13/21 09:50	05/14/21 19:46	1
Chrysene	ND		0.53	0.11	ug/L		05/13/21 09:50	05/14/21 19:46	1
Fluorene	**14**		0.53	0.13	ug/L		05/13/21 09:50	05/14/21 19:46	1
Phenanthrene	**26**		0.53	0.12	ug/L		05/13/21 09:50	05/14/21 19:46	1
Pyrene	**2.4**		0.53	0.11	ug/L		05/13/21 09:50	05/14/21 19:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*47*		*44 - 102*	*05/13/21 09:50*	*05/14/21 19:46*	*1*
Nitrobenzene-d5 (Surr)	*68*		*23 - 128*	*05/13/21 09:50*	*05/14/21 19:46*	*1*
p-Terphenyl-d14 (Surr)	*85*		*31 - 113*	*05/13/21 09:50*	*05/14/21 19:46*	*1*

Client Sample ID: URS-5_20210506
Date Collected: 05/06/21 10:21
Date Received: 05/07/21 17:50

Lab Sample ID: 410-39001-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	280		2.6	0.53	ug/L		05/13/21 09:50	05/18/21 00:00	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*58*		*44 - 102*	*05/13/21 09:50*	*05/18/21 00:00*	*5*
Nitrobenzene-d5 (Surr)	*67*		*23 - 128*	*05/13/21 09:50*	*05/18/21 00:00*	*5*
p-Terphenyl-d14 (Surr)	*95*		*31 - 113*	*05/13/21 09:50*	*05/18/21 00:00*	*5*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	8.2		5.0	1.0	ug/L		05/10/21 10:11	05/10/21 22:14	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/10/21 10:11	05/10/21 22:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*83*		*28 - 140*	*05/10/21 10:11*	*05/10/21 22:14*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	17000		500	300	ug/L		05/11/21 07:52	05/11/21 12:57	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*100*		*28 - 140*	*05/11/21 07:52*	*05/11/21 12:57*	*100*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (2C)	ND		0.029	0.0095	ug/L		05/12/21 17:40	05/13/21 09:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*95*		*46 - 136*	*05/12/21 17:40*	*05/13/21 09:57*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*220*	*S1+*	*46 - 136*	*05/12/21 17:40*	*05/13/21 09:57*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			05/13/21 15:24	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	340000		500	96	ug/L		05/10/21 17:12	05/12/21 21:35	1
Iron	100	J	200	40	ug/L		05/10/21 17:12	05/12/21 21:35	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/11/21 03:58	05/11/21 21:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	1100000		8000	8000	ug/L			05/13/21 00:32	1
Total Kjeldahl Nitrogen	5900		1000	500	ug/L		05/13/21 07:15	05/19/21 14:55	1
Total Carbon	340000		10000	5000	ug/L			05/12/21 16:14	10
Total Organic Carbon	66000		10000	5000	ug/L			05/13/21 06:57	10
Total Inorganic Carbon	270000		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: S-87I_20210506
Date Collected: 05/06/21 11:55
Date Received: 05/07/21 17:50

Lab Sample ID: 410-39001-4
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		5.0	2.0	ug/L			05/12/21 17:48	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			05/12/21 17:48	5
1,3,5-Trimethylbenzene	ND		25	1.5	ug/L			05/12/21 17:48	5
Toluene	**4.5**	**J**	5.0	1.0	ug/L			05/12/21 17:48	5
Xylenes, Total	ND		30	7.0	ug/L			05/12/21 17:48	5
Methyl tert-butyl ether	**250**		5.0	1.0	ug/L			05/12/21 17:48	5
Benzene	**1.9**	**J**	5.0	1.0	ug/L			05/12/21 17:48	5
1,2,4-Trimethylbenzene	ND		25	5.0	ug/L			05/12/21 17:48	5
Isopropylbenzene	ND		25	1.0	ug/L			05/12/21 17:48	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*80 - 120*		*05/12/21 17:48*	*5*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*05/12/21 17:48*	*5*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*05/12/21 17:48*	*5*
Toluene-d8 (Surr)	*105*		*80 - 120*		*05/12/21 17:48*	*5*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
t-Butyl alcohol	**180000**		25000	6000	ug/L			05/18/21 16:09	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*116*		*80 - 120*		*05/18/21 16:09*	*500*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*05/18/21 16:09*	*500*
Dibromofluoromethane (Surr)	*108*		*80 - 120*		*05/18/21 16:09*	*500*
Toluene-d8 (Surr)	*108*		*80 - 120*		*05/18/21 16:09*	*500*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.54	0.11	ug/L		05/13/21 09:50	05/14/21 20:16	1
Benzo[a]anthracene	ND		0.54	0.11	ug/L		05/13/21 09:50	05/14/21 20:16	1
Benzo[a]pyrene	ND		0.54	0.12	ug/L		05/13/21 09:50	05/14/21 20:16	1
Benzo[b]fluoranthene	ND		0.54	0.11	ug/L		05/13/21 09:50	05/14/21 20:16	1
Benzo[g,h,i]perylene	ND		0.54	0.11	ug/L		05/13/21 09:50	05/14/21 20:16	1
Chrysene	ND		0.54	0.11	ug/L		05/13/21 09:50	05/14/21 20:16	1
Fluorene	ND		0.54	0.13	ug/L		05/13/21 09:50	05/14/21 20:16	1
Naphthalene	ND		0.54	0.11	ug/L		05/13/21 09:50	05/14/21 20:16	1
Phenanthrene	ND		0.54	0.12	ug/L		05/13/21 09:50	05/14/21 20:16	1
Pyrene	ND		0.54	0.11	ug/L		05/13/21 09:50	05/14/21 20:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*63*		*44 - 102*	*05/13/21 09:50*	*05/14/21 20:16*	*1*
Nitrobenzene-d5 (Surr)	*78*		*23 - 128*	*05/13/21 09:50*	*05/14/21 20:16*	*1*
p-Terphenyl-d14 (Surr)	*77*		*31 - 113*	*05/13/21 09:50*	*05/14/21 20:16*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/10/21 10:11	05/10/21 22:31	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/10/21 10:11	05/10/21 22:31	1
Methane (1C)	**160**		5.0	3.0	ug/L		05/10/21 10:11	05/10/21 22:31	1

Client Sample ID: S-87I_20210506

Lab Sample ID: 410-39001-4

Date Collected: 05/06/21 11:55

Matrix: Water

Date Received: 05/07/21 17:50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*79*		*28 - 140*	*05/10/21 10:11*	*05/10/21 22:31*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.028	0.0095	ug/L		05/12/21 17:40	05/13/21 10:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*88*		*46 - 136*	*05/12/21 17:40*	*05/13/21 10:14*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*100*		*46 - 136*	*05/12/21 17:40*	*05/13/21 10:14*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**24000**		5000	1500	ug/L			05/11/21 07:29	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**70000**		500	96	ug/L		05/10/21 17:26	05/11/21 18:08	1
Iron	**34000**		200	40	ug/L		05/10/21 17:26	05/11/21 18:08	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/11/21 03:58	05/11/21 21:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**440000**		8000	8000	ug/L			05/13/21 01:00	1
Total Kjeldahl Nitrogen	**760**	**J**	1000	500	ug/L		05/13/21 14:24	05/20/21 09:57	1
Total Carbon	**300000**		10000	5000	ug/L			05/12/21 16:25	10
Total Organic Carbon	**65000**		2000	1000	ug/L			05/14/21 19:08	2
Total Inorganic Carbon	**240000**		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: S-449_20210506

Lab Sample ID: 410-39001-5

Date Collected: 05/06/21 12:20

Matrix: Water

Date Received: 05/07/21 17:50

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**30**		5.0	2.0	ug/L			05/12/21 18:36	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			05/12/21 18:36	5
1,3,5-Trimethylbenzene	**11**	**J**	25	1.5	ug/L			05/12/21 18:36	5
Toluene	**200**		5.0	1.0	ug/L			05/12/21 18:36	5
Xylenes, Total	**130**		30	7.0	ug/L			05/12/21 18:36	5
Methyl tert-butyl ether	**550**		5.0	1.0	ug/L			05/12/21 18:36	5
1,2,4-Trimethylbenzene	**9.4**	**J**	25	5.0	ug/L			05/12/21 18:36	5
Isopropylbenzene	**37**		25	1.0	ug/L			05/12/21 18:36	5
t-Butyl alcohol	**240**	**J**	250	60	ug/L			05/12/21 18:36	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*80 - 120*		*05/12/21 18:36*	*5*
4-Bromofluorobenzene (Surr)	*108*		*80 - 120*		*05/12/21 18:36*	*5*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*05/12/21 18:36*	*5*
Toluene-d8 (Surr)	*104*		*80 - 120*		*05/12/21 18:36*	*5*

Client Sample ID: S-449_20210506
Date Collected: 05/06/21 12:20
Date Received: 05/07/21 17:50

Lab Sample ID: 410-39001-5
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**3700**		50	10	ug/L			05/12/21 19:00	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*80 - 120*		*05/12/21 19:00*	*50*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*		*05/12/21 19:00*	*50*
Dibromofluoromethane (Surr)	*94*		*80 - 120*		*05/12/21 19:00*	*50*
Toluene-d8 (Surr)	*104*		*80 - 120*		*05/12/21 19:00*	*50*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.52	0.10	ug/L		05/13/21 17:42	05/18/21 01:30	1
Benzo[a]anthracene	ND		0.52	0.10	ug/L		05/13/21 17:42	05/18/21 01:30	1
Benzo[a]pyrene	ND		0.52	0.12	ug/L		05/13/21 17:42	05/18/21 01:30	1
Benzo[b]fluoranthene	ND		0.52	0.10	ug/L		05/13/21 17:42	05/18/21 01:30	1
Benzo[g,h,i]perylene	ND		0.52	0.10	ug/L		05/13/21 17:42	05/18/21 01:30	1
Chrysene	ND		0.52	0.10	ug/L		05/13/21 17:42	05/18/21 01:30	1
Fluorene	ND		0.52	0.13	ug/L		05/13/21 17:42	05/18/21 01:30	1
Naphthalene	**2.5**		0.52	0.10	ug/L		05/13/21 17:42	05/18/21 01:30	1
Phenanthrene	ND		0.52	0.12	ug/L		05/13/21 17:42	05/18/21 01:30	1
Pyrene	**0.15**	**J**	0.52	0.10	ug/L		05/13/21 17:42	05/18/21 01:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*68*		*44 - 102*	*05/13/21 17:42*	*05/18/21 01:30*	*1*
Nitrobenzene-d5 (Surr)	*68*		*23 - 128*	*05/13/21 17:42*	*05/18/21 01:30*	*1*
p-Terphenyl-d14 (Surr)	*83*		*31 - 113*	*05/13/21 17:42*	*05/18/21 01:30*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**7.0**		5.0	1.0	ug/L		05/10/21 10:13	05/10/21 23:55	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/10/21 10:13	05/10/21 23:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*97*		*28 - 140*	*05/10/21 10:13*	*05/10/21 23:55*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**21000**		1000	600	ug/L		05/11/21 07:52	05/11/21 13:12	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*97*		*28 - 140*	*05/11/21 07:52*	*05/11/21 13:12*	*200*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0095	ug/L		05/12/21 17:40	05/13/21 10:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*117*		*46 - 136*	*05/12/21 17:40*	*05/13/21 10:31*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*110*		*46 - 136*	*05/12/21 17:40*	*05/13/21 10:31*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			05/11/21 07:39	5

Client Sample ID: S-449_20210506

Lab Sample ID: 410-39001-5

Date Collected: 05/06/21 12:20
Matrix: Water
Date Received: 05/07/21 17:50

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	29000		500	96	ug/L		05/10/21 17:12	05/12/21 21:38	1
Iron	19000		200	40	ug/L		05/10/21 17:12	05/12/21 21:38	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/11/21 03:58	05/11/21 21:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	180000		8000	8000	ug/L			05/13/21 01:20	1
Total Kjeldahl Nitrogen	600	J	1000	500	ug/L		05/14/21 07:15	05/19/21 10:44	1
Total Carbon	47000		10000	5000	ug/L			05/12/21 16:36	10
Total Organic Carbon	7900		1000	500	ug/L			05/13/21 20:08	1
Total Inorganic Carbon	39000		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: S-448_20210506

Lab Sample ID: 410-39001-6

Date Collected: 05/06/21 13:35
Matrix: Water
Date Received: 05/07/21 17:50

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/12/21 12:35	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/12/21 12:35	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/12/21 12:35	1
Toluene	ND		1.0	0.20	ug/L			05/12/21 12:35	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/12/21 12:35	1
Methyl tert-butyl ether	2.9		1.0	0.20	ug/L			05/12/21 12:35	1
Benzene	3.5		1.0	0.20	ug/L			05/12/21 12:35	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/12/21 12:35	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/12/21 12:35	1
t-Butyl alcohol	ND		50	12	ug/L			05/12/21 12:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*80 - 120*		*05/12/21 12:35*	*1*
4-Bromofluorobenzene (Surr)	*113*		*80 - 120*		*05/12/21 12:35*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*05/12/21 12:35*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/12/21 12:35*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.52	0.10	ug/L		05/13/21 17:42	05/18/21 02:00	1
Benzo[a]anthracene	ND		0.52	0.10	ug/L		05/13/21 17:42	05/18/21 02:00	1
Benzo[a]pyrene	ND		0.52	0.11	ug/L		05/13/21 17:42	05/18/21 02:00	1
Benzo[b]fluoranthene	ND		0.52	0.10	ug/L		05/13/21 17:42	05/18/21 02:00	1
Benzo[g,h,i]perylene	ND		0.52	0.10	ug/L		05/13/21 17:42	05/18/21 02:00	1
Chrysene	ND		0.52	0.10	ug/L		05/13/21 17:42	05/18/21 02:00	1
Fluorene	ND		0.52	0.12	ug/L		05/13/21 17:42	05/18/21 02:00	1
Naphthalene	ND		0.52	0.10	ug/L		05/13/21 17:42	05/18/21 02:00	1
Phenanthrene	ND		0.52	0.11	ug/L		05/13/21 17:42	05/18/21 02:00	1
Pyrene	ND		0.52	0.10	ug/L		05/13/21 17:42	05/18/21 02:00	1

Client Sample ID: S-448_20210506

Lab Sample ID: 410-39001-6

Date Collected: 05/06/21 13:35

Matrix: Water

Date Received: 05/07/21 17:50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	78		44 - 102	05/13/21 17:42	05/18/21 02:00	1
Nitrobenzene-d5 (Surr)	77		23 - 128	05/13/21 17:42	05/18/21 02:00	1
p-Terphenyl-d14 (Surr)	88		31 - 113	05/13/21 17:42	05/18/21 02:00	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/11/21 07:52	05/11/21 10:16	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/11/21 07:52	05/11/21 10:16	1
Methane (1C)	**250**		5.0	3.0	ug/L		05/11/21 07:52	05/11/21 10:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Propene (1C)	67		28 - 140	05/11/21 07:52	05/11/21 10:16	1

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.028	0.0095	ug/L		05/12/21 17:40	05/13/21 10:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane (Surr) (1C)	102		46 - 136	05/12/21 17:40	05/13/21 10:48	1
1,1,2,2-Tetrachloroethane (Surr) (2C)	101		46 - 136	05/12/21 17:40	05/13/21 10:48	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**140000**		10000	3000	ug/L			05/11/21 07:49	10

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**190000**		500	96	ug/L		05/11/21 02:30	05/13/21 13:44	1
Iron	**7900**		200	40	ug/L		05/11/21 02:30	05/13/21 13:44	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/11/21 03:58	05/11/21 22:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**630000**		8000	8000	ug/L			05/13/21 01:41	1
Total Kjeldahl Nitrogen	**770**	**J**	1000	500	ug/L		05/14/21 07:15	05/19/21 10:40	1
Total Carbon	**120000**		10000	5000	ug/L			05/12/21 16:47	10
Total Organic Carbon	**10000**		1000	500	ug/L			05/13/21 07:46	1
Total Inorganic Carbon	**110000**		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: S-273_20210506

Lab Sample ID: 410-39001-7

Date Collected: 05/06/21 14:00

Matrix: Water

Date Received: 05/07/21 17:50

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**58**		1.0	0.40	ug/L			05/12/21 12:59	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/12/21 12:59	1
1,3,5-Trimethylbenzene	**21**		5.0	0.30	ug/L			05/12/21 12:59	1
Toluene	**9.9**		1.0	0.20	ug/L			05/12/21 12:59	1

Client Sample ID: S-273_20210506
Date Collected: 05/06/21 14:00
Date Received: 05/07/21 17:50

Lab Sample ID: 410-39001-7
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	260		6.0	1.4	ug/L			05/12/21 12:59	1
Methyl tert-butyl ether	55		1.0	0.20	ug/L			05/12/21 12:59	1
1,2,4-Trimethylbenzene	23		5.0	1.0	ug/L			05/12/21 12:59	1
Isopropylbenzene	8.4		5.0	0.20	ug/L			05/12/21 12:59	1
t-Butyl alcohol	210		50	12	ug/L			05/12/21 12:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*80 - 120*		*05/12/21 12:59*	*1*
4-Bromofluorobenzene (Surr)	*113*		*80 - 120*		*05/12/21 12:59*	*1*
Dibromofluoromethane (Surr)	*94*		*80 - 120*		*05/12/21 12:59*	*1*
Toluene-d8 (Surr)	*108*		*80 - 120*		*05/12/21 12:59*	*1*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	420		10	2.0	ug/L			05/13/21 13:51	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*80 - 120*		*05/13/21 13:51*	*10*
4-Bromofluorobenzene (Surr)	*107*		*80 - 120*		*05/13/21 13:51*	*10*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*05/13/21 13:51*	*10*
Toluene-d8 (Surr)	*106*		*80 - 120*		*05/13/21 13:51*	*10*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.57	0.11	ug/L		05/13/21 17:42	05/18/21 02:31	1
Benzo[a]anthracene	ND		0.57	0.11	ug/L		05/13/21 17:42	05/18/21 02:31	1
Benzo[a]pyrene	ND		0.57	0.12	ug/L		05/13/21 17:42	05/18/21 02:31	1
Benzo[b]fluoranthene	ND		0.57	0.11	ug/L		05/13/21 17:42	05/18/21 02:31	1
Benzo[g,h,i]perylene	ND		0.57	0.11	ug/L		05/13/21 17:42	05/18/21 02:31	1
Chrysene	ND		0.57	0.11	ug/L		05/13/21 17:42	05/18/21 02:31	1
Fluorene	0.29	J	0.57	0.14	ug/L		05/13/21 17:42	05/18/21 02:31	1
Naphthalene	ND		0.57	0.11	ug/L		05/13/21 17:42	05/18/21 02:31	1
Phenanthrene	ND		0.57	0.12	ug/L		05/13/21 17:42	05/18/21 02:31	1
Pyrene	ND		0.57	0.11	ug/L		05/13/21 17:42	05/18/21 02:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*81*		*44 - 102*	*05/13/21 17:42*	*05/18/21 02:31*	*1*
Nitrobenzene-d5 (Surr)	*73*		*23 - 128*	*05/13/21 17:42*	*05/18/21 02:31*	*1*
p-Terphenyl-d14 (Surr)	*88*		*31 - 113*	*05/13/21 17:42*	*05/18/21 02:31*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	1.6	J	5.0	1.0	ug/L		05/10/21 10:13	05/11/21 00:32	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/10/21 10:13	05/11/21 00:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*83*		*28 - 140*	*05/10/21 10:13*	*05/11/21 00:32*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	12000		250	150	ug/L		05/11/21 07:52	05/11/21 13:28	50

Client Sample ID: S-273_20210506

Lab Sample ID: 410-39001-7

Date Collected: 05/06/21 14:00

Matrix: Water

Date Received: 05/07/21 17:50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*99*		*28 - 140*	*05/11/21 07:52*	*05/11/21 13:28*	*50*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.028	0.0094	ug/L		05/12/21 17:40	05/13/21 11:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*122*		*46 - 136*	*05/12/21 17:40*	*05/13/21 11:05*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*124*		*46 - 136*	*05/12/21 17:40*	*05/13/21 11:05*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			05/11/21 07:59	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**71000**		500	96	ug/L		05/10/21 17:26	05/11/21 18:11	1
Iron	**14000**		200	40	ug/L		05/10/21 17:26	05/11/21 18:11	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.40**	**J**	0.52	0.073	ug/L		05/11/21 03:58	05/11/21 21:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**330000**		8000	8000	ug/L			05/13/21 01:07	1
Total Kjeldahl Nitrogen	**5000**		1000	500	ug/L		05/13/21 14:24	05/20/21 09:40	1
Total Carbon	**95000**		10000	5000	ug/L			05/12/21 16:57	10
Total Organic Carbon	**11000**		1000	500	ug/L			05/13/21 08:02	1
Total Inorganic Carbon	**84000**		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: S-378_20210506

Lab Sample ID: 410-39001-8

Date Collected: 05/06/21 15:20

Matrix: Water

Date Received: 05/07/21 17:50

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**910**		5.0	2.0	ug/L			05/12/21 19:24	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			05/12/21 19:24	5
1,3,5-Trimethylbenzene	**220**		25	1.5	ug/L			05/12/21 19:24	5
Toluene	**270**		5.0	1.0	ug/L			05/12/21 19:24	5
Xylenes, Total	**730**		30	7.0	ug/L			05/12/21 19:24	5
Methyl tert-butyl ether	ND		5.0	1.0	ug/L			05/12/21 19:24	5
1,2,4-Trimethylbenzene	**570**		25	5.0	ug/L			05/12/21 19:24	5
Isopropylbenzene	**43**		25	1.0	ug/L			05/12/21 19:24	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*80 - 120*		*05/12/21 19:24*	*5*
4-Bromofluorobenzene (Surr)	*107*		*80 - 120*		*05/12/21 19:24*	*5*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*05/12/21 19:24*	*5*
Toluene-d8 (Surr)	*106*		*80 - 120*		*05/12/21 19:24*	*5*

Client Sample ID: S-378_20210506

Date Collected: 05/06/21 15:20
Date Received: 05/07/21 17:50

Lab Sample ID: 410-39001-8

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1500**		50	10	ug/L			05/13/21 14:15	50
t-Butyl alcohol	ND		2500	600	ug/L			05/13/21 14:15	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*80 - 120*		*05/13/21 14:15*	*50*
4-Bromofluorobenzene (Surr)	*107*		*80 - 120*		*05/13/21 14:15*	*50*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*05/13/21 14:15*	*50*
Toluene-d8 (Surr)	*105*		*80 - 120*		*05/13/21 14:15*	*50*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.52	0.10	ug/L		05/13/21 17:42	05/18/21 03:01	1
Benzo[a]anthracene	ND		0.52	0.10	ug/L		05/13/21 17:42	05/18/21 03:01	1
Benzo[a]pyrene	ND		0.52	0.11	ug/L		05/13/21 17:42	05/18/21 03:01	1
Benzo[b]fluoranthene	ND		0.52	0.10	ug/L		05/13/21 17:42	05/18/21 03:01	1
Benzo[g,h,i]perylene	ND		0.52	0.10	ug/L		05/13/21 17:42	05/18/21 03:01	1
Chrysene	ND		0.52	0.10	ug/L		05/13/21 17:42	05/18/21 03:01	1
Fluorene	**0.13**	**J**	0.52	0.12	ug/L		05/13/21 17:42	05/18/21 03:01	1
Phenanthrene	ND		0.52	0.11	ug/L		05/13/21 17:42	05/18/21 03:01	1
Pyrene	ND		0.52	0.10	ug/L		05/13/21 17:42	05/18/21 03:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*82*		*44 - 102*	*05/13/21 17:42*	*05/18/21 03:01*	*1*
Nitrobenzene-d5 (Surr)	*77*		*23 - 128*	*05/13/21 17:42*	*05/18/21 03:01*	*1*
p-Terphenyl-d14 (Surr)	*86*		*31 - 113*	*05/13/21 17:42*	*05/18/21 03:01*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**220**		2.6	0.52	ug/L		05/13/21 17:42	05/19/21 17:36	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*87*		*44 - 102*	*05/13/21 17:42*	*05/19/21 17:36*	*5*
Nitrobenzene-d5 (Surr)	*81*		*23 - 128*	*05/13/21 17:42*	*05/19/21 17:36*	*5*
p-Terphenyl-d14 (Surr)	*95*		*31 - 113*	*05/13/21 17:42*	*05/19/21 17:36*	*5*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**1.3**	**J**	5.0	1.0	ug/L		05/10/21 10:13	05/11/21 00:49	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/10/21 10:13	05/11/21 00:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*86*		*28 - 140*	*05/10/21 10:13*	*05/11/21 00:49*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**24000**		1000	600	ug/L		05/11/21 07:52	05/11/21 13:43	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*103*		*28 - 140*	*05/11/21 07:52*	*05/11/21 13:43*	*200*

Client Sample ID: S-378_20210506

Lab Sample ID: 410-39001-8

Date Collected: 05/06/21 15:20

Matrix: Water

Date Received: 05/07/21 17:50

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0095	ug/L		05/12/21 17:40	05/13/21 11:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*141*	*S1+*	*46 - 136*	*05/12/21 17:40*	*05/13/21 11:22*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*101*		*46 - 136*	*05/12/21 17:40*	*05/13/21 11:22*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			05/11/21 08:09	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**110000**		500	96	ug/L		05/10/21 17:26	05/11/21 18:05	1
Iron	**43000**		200	40	ug/L		05/10/21 17:26	05/11/21 18:05	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/11/21 03:58	05/11/21 22:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**390000**		8000	8000	ug/L			05/13/21 01:14	1
Total Kjeldahl Nitrogen	**1400**		1000	500	ug/L		05/14/21 07:15	05/19/21 10:42	1
Total Carbon	**97000**		10000	5000	ug/L			05/12/21 17:52	10
Total Organic Carbon	**12000**		1000	500	ug/L			05/13/21 20:24	1
Total Inorganic Carbon	**85000**		2000	600	ug/L			05/10/21 15:16	1

Client Sample ID: TB_20210507

Lab Sample ID: 410-39001-9

Date Collected: 05/03/21 00:00

Matrix: Water

Date Received: 05/07/21 17:50

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		1.0	0.20	ug/L			05/12/21 10:59	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/12/21 10:59	1
1,2-Dichloroethane	**0.67**	**J**	1.0	0.30	ug/L			05/12/21 10:59	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/12/21 10:59	1
Toluene	ND		1.0	0.20	ug/L			05/12/21 10:59	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/12/21 10:59	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/12/21 10:59	1
Benzene	ND		1.0	0.20	ug/L			05/12/21 10:59	1
Naphthalene	ND		5.0	1.0	ug/L			05/12/21 10:59	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/12/21 10:59	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/12/21 10:59	1
t-Butyl alcohol	ND		50	12	ug/L			05/12/21 10:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*		*05/12/21 10:59*	*1*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*		*05/12/21 10:59*	*1*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*05/12/21 10:59*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*05/12/21 10:59*	*1*

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39001-1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-39001-1	S-444_20210506	96	106	97	103
410-39001-2	S-42I_20210506	98	107	100	104
410-39001-3	URS-5_20210506	95	114	97	108
410-39001-3 - DL	URS-5_20210506	96	108	97	104
410-39001-4	S-87I_20210506	96	104	101	105
410-39001-4 - DL	S-87I_20210506	116	97	108	108
410-39001-5	S-449_20210506	93	108	97	104
410-39001-5 - DL	S-449_20210506	95	105	94	104
410-39001-6	S-448_20210506	95	113	98	102
410-39001-7	S-273_20210506	95	113	94	108
410-39001-7 - DL	S-273_20210506	95	107	97	106
410-39001-8	S-378_20210506	93	107	97	106
410-39001-8 - DL	S-378_20210506	94	107	95	105
410-39001-9	TB_20210507	99	105	101	103
LCS 410-125304/4	Lab Control Sample	102	109	101	104
LCS 410-125930/4	Lab Control Sample	99	109	95	107
LCS 410-127638/4	Lab Control Sample	119	102	108	108
LCSD 410-125304/5	Lab Control Sample Dup	101	108	96	106
LCSD 410-125930/5	Lab Control Sample Dup	100	111	96	105
LCSD 410-127638/5	Lab Control Sample Dup	118	105	107	109
MB 410-125304/6	Method Blank	97	98	98	99
MB 410-125930/6	Method Blank	98	102	99	102
MB 410-127638/6	Method Blank	114	98	106	108

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(44-102)	(23-128)	(31-113)
410-39001-1	S-444_20210506	80	79	70
410-39001-2	S-42I_20210506	70	77	85
410-39001-3	URS-5_20210506	47	68	85
410-39001-3 - DL	URS-5_20210506	58	67	95
410-39001-4	S-87I_20210506	63	78	77
410-39001-5	S-449_20210506	68	68	83
410-39001-6	S-448_20210506	78	77	88
410-39001-7	S-273_20210506	81	73	88
410-39001-8	S-378_20210506	82	77	86
410-39001-8 - DL	S-378_20210506	87	81	95
LCS 410-125830/2-A	Lab Control Sample	60	74	90
LCS 410-126158/2-A	Lab Control Sample	67	78	97
LCSD 410-125830/3-A	Lab Control Sample Dup	59	77	101
MB 410-125830/1-A	Method Blank	63	67	91

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)								
Lab Sample ID	Client Sample ID	FBP (44-102)	NBZ (23-128)	TPHd14 (31-113)						
MB 410-126158/1-A	Method Blank	67	67	79						

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)								
Lab Sample ID	Client Sample ID	Propene1 (28-140)								
410-39001-1	S-444_20210506	97								
410-39001-1 - DL	S-444_20210506	97								
410-39001-2	S-42I_20210506	79								
410-39001-3	URS-5_20210506	83								
410-39001-3 - DL	URS-5_20210506	100								
410-39001-4	S-87I_20210506	79								
410-39001-5	S-449_20210506	97								
410-39001-5 - DL	S-449_20210506	97								
410-39001-6	S-448_20210506	67								
410-39001-7	S-273_20210506	83								
410-39001-7 - DL	S-273_20210506	99								
410-39001-8	S-378_20210506	86								
410-39001-8 - DL	S-378_20210506	103								
LCS 410-124367/2-A	Lab Control Sample	101								
LCS 410-124370/2-A	Lab Control Sample	94								
LCS 410-124778/2-A	Lab Control Sample	104								
LCSD 410-124367/3-A	Lab Control Sample Dup	99								
LCSD 410-124370/3-A	Lab Control Sample Dup	94								
LCSD 410-124778/3-A	Lab Control Sample Dup	100								
MB 410-124367/1-A	Method Blank	98								
MB 410-124370/1-A	Method Blank	98								
MB 410-124778/1-A	Method Blank	96								

Surrogate Legend

Propene = Propene

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)								
Lab Sample ID	Client Sample ID	1122TCA1 (46-136)	1122TCA2 (46-136)							
410-39001-1	S-444_20210506	114	88							
410-39001-2	S-42I_20210506	87	88							
410-39001-3	URS-5_20210506	95	220 S1+							
410-39001-4	S-87I_20210506	88	100							
410-39001-5	S-449_20210506	117	110							
410-39001-6	S-448_20210506	102	101							
410-39001-7	S-273_20210506	122	124							

Surrogate Summary

Client: Stantec Consulting Corp. Job ID: 410-39001-1
Project/Site: Former PES Annual GWS

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	1122TCA1 (46-136)	1122TCA2 (46-136)								
410-39001-8	S-378_20210506	141 S1+	101								
LCS 410-125634/2-A	Lab Control Sample	97	97								
LCSD 410-125634/3-A	Lab Control Sample Dup	90	95								
MB 410-125634/1-A	Method Blank	95	94								

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39001-1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-125304/6
Matrix: Water
Analysis Batch: 125304

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		1.0	0.20	ug/L			05/12/21 10:35	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/12/21 10:35	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/12/21 10:35	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/12/21 10:35	1
Toluene	ND		1.0	0.20	ug/L			05/12/21 10:35	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/12/21 10:35	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/12/21 10:35	1
Benzene	ND		1.0	0.20	ug/L			05/12/21 10:35	1
Naphthalene	ND		5.0	1.0	ug/L			05/12/21 10:35	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/12/21 10:35	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/12/21 10:35	1
t-Butyl alcohol	ND		50	12	ug/L			05/12/21 10:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*80 - 120*		*05/12/21 10:35*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*05/12/21 10:35*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*05/12/21 10:35*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*05/12/21 10:35*	*1*

Lab Sample ID: LCS 410-125304/4
Matrix: Water
Analysis Batch: 125304

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylene Dibromide	20.0	19.3		ug/L		96	77 - 120
Ethylbenzene	20.0	20.8		ug/L		104	80 - 120
1,2-Dichloroethane	20.0	18.3		ug/L		91	73 - 124
1,3,5-Trimethylbenzene	20.0	19.5		ug/L		97	75 - 120
Toluene	20.0	20.8		ug/L		104	80 - 120
Xylenes, Total	60.0	58.8		ug/L		98	80 - 120
Methyl tert-butyl ether	20.0	19.8		ug/L		99	69 - 122
Benzene	20.0	21.7		ug/L		109	80 - 120
Naphthalene	20.0	15.5		ug/L		78	53 - 124
1,2,4-Trimethylbenzene	20.0	19.1		ug/L		96	75 - 120
Isopropylbenzene	20.0	18.9		ug/L		94	80 - 120
t-Butyl alcohol	200	188		ug/L		94	60 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*
4-Bromofluorobenzene (Surr)	*109*		*80 - 120*
Dibromofluoromethane (Surr)	*101*		*80 - 120*
Toluene-d8 (Surr)	*104*		*80 - 120*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-125304/5
Matrix: Water
Analysis Batch: 125304

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide			20.0	18.5		ug/L		92	77 - 120	4	30
Ethylbenzene			20.0	19.8		ug/L		99	80 - 120	5	30
1,2-Dichloroethane			20.0	17.5		ug/L		87	73 - 124	5	30
1,3,5-Trimethylbenzene			20.0	18.5		ug/L		93	75 - 120	5	30
Toluene			20.0	20.4		ug/L		102	80 - 120	2	30
Xylenes, Total			60.0	56.9		ug/L		95	80 - 120	3	30
Methyl tert-butyl ether			20.0	18.9		ug/L		95	69 - 122	5	30
Benzene			20.0	20.5		ug/L		102	80 - 120	6	30
Naphthalene			20.0	14.5		ug/L		72	53 - 124	7	30
1,2,4-Trimethylbenzene			20.0	18.6		ug/L		93	75 - 120	3	30
Isopropylbenzene			20.0	18.2		ug/L		91	80 - 120	4	30
t-Butyl alcohol			200	181		ug/L		90	60 - 130	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*
4-Bromofluorobenzene (Surr)	*108*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*80 - 120*
Toluene-d8 (Surr)	*106*		*80 - 120*

Lab Sample ID: MB 410-125930/6
Matrix: Water
Analysis Batch: 125930

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/13/21 11:14	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/13/21 11:14	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/13/21 11:14	1
Toluene	ND		1.0	0.20	ug/L			05/13/21 11:14	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/13/21 11:14	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/13/21 11:14	1
Benzene	ND		1.0	0.20	ug/L			05/13/21 11:14	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/13/21 11:14	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/13/21 11:14	1
t-Butyl alcohol	ND		50	12	ug/L			05/13/21 11:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 120*		*05/13/21 11:14*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*05/13/21 11:14*	*1*
Dibromofluoromethane (Surr)	*99*		*80 - 120*		*05/13/21 11:14*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/13/21 11:14*	*1*

Lab Sample ID: LCS 410-125930/4
Matrix: Water
Analysis Batch: 125930

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylbenzene			20.0	18.4		ug/L		92	80 - 120		
1,2-Dichloroethane			20.0	16.4		ug/L		82	73 - 124		

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-125930/4
Matrix: Water
Analysis Batch: 125930

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,3,5-Trimethylbenzene			20.0	16.8		ug/L		84	75 - 120		
Toluene			20.0	18.9		ug/L		94	80 - 120		
Xylenes, Total			60.0	52.6		ug/L		88	80 - 120		
Methyl tert-butyl ether			20.0	17.4		ug/L		87	69 - 122		
Benzene			20.0	19.1		ug/L		96	80 - 120		
1,2,4-Trimethylbenzene			20.0	16.7		ug/L		83	75 - 120		
Isopropylbenzene			20.0	17.1		ug/L		86	80 - 120		
t-Butyl alcohol			200	174		ug/L		87	60 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*
4-Bromofluorobenzene (Surr)	*109*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*80 - 120*
Toluene-d8 (Surr)	*107*		*80 - 120*

Lab Sample ID: LCSD 410-125930/5
Matrix: Water
Analysis Batch: 125930

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene			20.0	17.9		ug/L		90	80 - 120	2	30
1,2-Dichloroethane			20.0	15.7		ug/L		78	73 - 124	4	30
1,3,5-Trimethylbenzene			20.0	15.3		ug/L		77	75 - 120	9	30
Toluene			20.0	18.4		ug/L		92	80 - 120	3	30
Xylenes, Total			60.0	51.4		ug/L		86	80 - 120	2	30
Methyl tert-butyl ether			20.0	16.9		ug/L		84	69 - 122	3	30
Benzene			20.0	18.4		ug/L		92	80 - 120	4	30
1,2,4-Trimethylbenzene			20.0	15.8		ug/L		79	75 - 120	5	30
Isopropylbenzene			20.0	16.5		ug/L		82	80 - 120	4	30
t-Butyl alcohol			200	162		ug/L		81	60 - 130	7	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*
4-Bromofluorobenzene (Surr)	*111*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*80 - 120*
Toluene-d8 (Surr)	*105*		*80 - 120*

Lab Sample ID: MB 410-127638/6
Matrix: Water
Analysis Batch: 127638

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/18/21 13:57	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/18/21 13:57	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/18/21 13:57	1
Toluene	ND		1.0	0.20	ug/L			05/18/21 13:57	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/18/21 13:57	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/18/21 13:57	1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-127638/6
Matrix: Water
Analysis Batch: 127638

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.20	ug/L			05/18/21 13:57	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/18/21 13:57	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/18/21 13:57	1
t-Butyl alcohol	ND		50	12	ug/L			05/18/21 13:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*80 - 120*		*05/18/21 13:57*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*05/18/21 13:57*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 120*		*05/18/21 13:57*	*1*
Toluene-d8 (Surr)	*108*		*80 - 120*		*05/18/21 13:57*	*1*

Lab Sample ID: LCS 410-127638/4
Matrix: Water
Analysis Batch: 127638

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylbenzene			20.0	19.7		ug/L		98	80 - 120		
1,2-Dichloroethane			20.0	21.9		ug/L		110	73 - 124		
1,3,5-Trimethylbenzene			20.0	19.2		ug/L		96	75 - 120		
Toluene			20.0	19.6		ug/L		98	80 - 120		
Xylenes, Total			60.0	57.1		ug/L		95	80 - 120		
Methyl tert-butyl ether			20.0	18.5		ug/L		93	69 - 122		
Benzene			20.0	19.7		ug/L		98	80 - 120		
1,2,4-Trimethylbenzene			20.0	19.3		ug/L		96	75 - 120		
Isopropylbenzene			20.0	19.5		ug/L		98	80 - 120		
t-Butyl alcohol			200	194		ug/L		97	60 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*119*		*80 - 120*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*
Dibromofluoromethane (Surr)	*108*		*80 - 120*
Toluene-d8 (Surr)	*108*		*80 - 120*

Lab Sample ID: LCSD 410-127638/5
Matrix: Water
Analysis Batch: 127638

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene			20.0	20.0		ug/L		100	80 - 120	2	30
1,2-Dichloroethane			20.0	21.4		ug/L		107	73 - 124	2	30
1,3,5-Trimethylbenzene			20.0	18.9		ug/L		95	75 - 120	2	30
Toluene			20.0	19.7		ug/L		99	80 - 120	1	30
Xylenes, Total			60.0	58.4		ug/L		97	80 - 120	2	30
Methyl tert-butyl ether			20.0	17.9		ug/L		90	69 - 122	3	30
Benzene			20.0	19.5		ug/L		98	80 - 120	1	30
1,2,4-Trimethylbenzene			20.0	19.0		ug/L		95	75 - 120	1	30
Isopropylbenzene			20.0	19.8		ug/L		99	80 - 120	2	30
t-Butyl alcohol			200	190		ug/L		95	60 - 130	2	30

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-127638/5
Matrix: Water
Analysis Batch: 127638

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	118		80 - 120
4-Bromofluorobenzene (Surr)	105		80 - 120
Dibromofluoromethane (Surr)	107		80 - 120
Toluene-d8 (Surr)	109		80 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-125830/1-A
Matrix: Water
Analysis Batch: 126273

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 125830

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/13/21 09:50	05/14/21 01:10	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/13/21 09:50	05/14/21 01:10	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/13/21 09:50	05/14/21 01:10	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/13/21 09:50	05/14/21 01:10	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/13/21 09:50	05/14/21 01:10	1
Chrysene	ND		0.50	0.10	ug/L		05/13/21 09:50	05/14/21 01:10	1
Fluorene	ND		0.50	0.12	ug/L		05/13/21 09:50	05/14/21 01:10	1
Naphthalene	ND		0.50	0.10	ug/L		05/13/21 09:50	05/14/21 01:10	1
Phenanthrene	ND		0.50	0.11	ug/L		05/13/21 09:50	05/14/21 01:10	1
Pyrene	ND		0.50	0.10	ug/L		05/13/21 09:50	05/14/21 01:10	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	63		44 - 102	05/13/21 09:50	05/14/21 01:10	1
Nitrobenzene-d5 (Surr)	67		23 - 128	05/13/21 09:50	05/14/21 01:10	1
p-Terphenyl-d14 (Surr)	91		31 - 113	05/13/21 09:50	05/14/21 01:10	1

Lab Sample ID: LCS 410-125830/2-A
Matrix: Water
Analysis Batch: 126273

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 125830

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.0	48.2		ug/L		96	61 - 117
Benzo[a]anthracene	50.0	49.9		ug/L		100	61 - 126
Benzo[a]pyrene	50.0	44.5		ug/L		89	60 - 116
Benzo[b]fluoranthene	50.0	46.7		ug/L		93	61 - 119
Benzo[g,h,i]perylene	50.0	39.1		ug/L		78	54 - 120
Chrysene	50.0	50.9		ug/L		102	65 - 121
Fluorene	50.0	45.7		ug/L		91	56 - 115
Naphthalene	50.0	38.1		ug/L		76	51 - 102
Phenanthrene	50.0	47.3		ug/L		95	65 - 113
Pyrene	50.0	49.5		ug/L		99	65 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	60		44 - 102
Nitrobenzene-d5 (Surr)	74		23 - 128
p-Terphenyl-d14 (Surr)	90		31 - 113

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: LCSD 410-125830/3-A
Matrix: Water
Analysis Batch: 126273

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 125830

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Anthracene			50.0	48.6		ug/L		97	61 - 117	1	30
Benzo[a]anthracene			50.0	52.4		ug/L		105	61 - 126	5	30
Benzo[a]pyrene			50.0	49.3		ug/L		99	60 - 116	10	30
Benzo[b]fluoranthene			50.0	50.2		ug/L		100	61 - 119	7	30
Benzo[g,h,i]perylene			50.0	43.5		ug/L		87	54 - 120	11	30
Chrysene			50.0	53.5		ug/L		107	65 - 121	5	30
Fluorene			50.0	44.9		ug/L		90	56 - 115	2	30
Naphthalene			50.0	38.7		ug/L		77	51 - 102	2	30
Phenanthrene			50.0	50.2		ug/L		100	65 - 113	6	30
Pyrene			50.0	49.3		ug/L		99	65 - 115	0	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*59*		*44 - 102*
Nitrobenzene-d5 (Surr)	*77*		*23 - 128*
p-Terphenyl-d14 (Surr)	*101*		*31 - 113*

Lab Sample ID: MB 410-126158/1-A
Matrix: Water
Analysis Batch: 126971

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 126158

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/13/21 17:42	05/17/21 19:31	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/13/21 17:42	05/17/21 19:31	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/13/21 17:42	05/17/21 19:31	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/13/21 17:42	05/17/21 19:31	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/13/21 17:42	05/17/21 19:31	1
Chrysene	ND		0.50	0.10	ug/L		05/13/21 17:42	05/17/21 19:31	1
Fluorene	ND		0.50	0.12	ug/L		05/13/21 17:42	05/17/21 19:31	1
Naphthalene	ND		0.50	0.10	ug/L		05/13/21 17:42	05/17/21 19:31	1
Phenanthrene	ND		0.50	0.11	ug/L		05/13/21 17:42	05/17/21 19:31	1
Pyrene	ND		0.50	0.10	ug/L		05/13/21 17:42	05/17/21 19:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*67*		*44 - 102*	*05/13/21 17:42*	*05/17/21 19:31*	*1*
Nitrobenzene-d5 (Surr)	*67*		*23 - 128*	*05/13/21 17:42*	*05/17/21 19:31*	*1*
p-Terphenyl-d14 (Surr)	*79*		*31 - 113*	*05/13/21 17:42*	*05/17/21 19:31*	*1*

Lab Sample ID: LCS 410-126158/2-A
Matrix: Water
Analysis Batch: 126971

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 126158

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene			50.0	45.8		ug/L		92	61 - 117
Benzo[a]anthracene			50.0	48.9		ug/L		98	61 - 126
Benzo[a]pyrene			50.0	46.0		ug/L		92	60 - 116
Benzo[b]fluoranthene			50.0	44.4		ug/L		89	61 - 119
Benzo[g,h,i]perylene			50.0	51.1		ug/L		102	54 - 120
Chrysene			50.0	49.2		ug/L		98	65 - 121

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-126158/2-A
Matrix: Water
Analysis Batch: 126971

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 126158

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluorene			50.0	41.4		ug/L		83	56 - 115		
Naphthalene			50.0	33.4		ug/L		67	51 - 102		
Phenanthrene			50.0	46.3		ug/L		93	65 - 113		
Pyrene			50.0	45.5		ug/L		91	65 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*67*		*44 - 102*
Nitrobenzene-d5 (Surr)	*78*		*23 - 128*
p-Terphenyl-d14 (Surr)	*97*		*31 - 113*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-124367/1-A
Matrix: Water
Analysis Batch: 124380

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 124367

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/10/21 10:11	05/10/21 17:27	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/10/21 10:11	05/10/21 17:27	1
Methane (1C)	ND		5.0	3.0	ug/L		05/10/21 10:11	05/10/21 17:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*98*		*28 - 140*	*05/10/21 10:11*	*05/10/21 17:27*	*1*

Lab Sample ID: LCS 410-124367/2-A
Matrix: Water
Analysis Batch: 124380

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 124367

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	61.7		ug/L		104	85 - 115		
Ethene (1C)			60.4	62.2		ug/L		103	83 - 115		
Methane (1C)			59.4	59.1		ug/L		99	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*101*		*28 - 140*

Lab Sample ID: LCSD 410-124367/3-A
Matrix: Water
Analysis Batch: 124380

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 124367

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	59.6		ug/L		100	85 - 115	3	20
Ethene (1C)			60.4	60.3		ug/L		100	83 - 115	3	20
Methane (1C)			59.4	57.2		ug/L		96	85 - 115	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*99*		*28 - 140*

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: MB 410-124370/1-A
Matrix: Water
Analysis Batch: 124380

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 124370

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/10/21 10:13	05/10/21 23:04	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/10/21 10:13	05/10/21 23:04	1
Methane (1C)	ND		5.0	3.0	ug/L		05/10/21 10:13	05/10/21 23:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*98*		*28 - 140*	*05/10/21 10:13*	*05/10/21 23:04*	*1*

Lab Sample ID: LCS 410-124370/2-A
Matrix: Water
Analysis Batch: 124380

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 124370

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	58.6		ug/L		99	85 - 115		
Ethene (1C)			60.4	59.2		ug/L		98	83 - 115		
Methane (1C)			59.4	57.5		ug/L		97	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*94*		*28 - 140*

Lab Sample ID: LCSD 410-124370/3-A
Matrix: Water
Analysis Batch: 124380

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 124370

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	58.5		ug/L		99	85 - 115	0	20
Ethene (1C)			60.4	59.1		ug/L		98	83 - 115	0	20
Methane (1C)			59.4	56.4		ug/L		95	85 - 115	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*94*		*28 - 140*

Lab Sample ID: MB 410-124778/1-A
Matrix: Water
Analysis Batch: 124820

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 124778

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/11/21 07:52	05/11/21 09:01	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/11/21 07:52	05/11/21 09:01	1
Methane (1C)	ND		5.0	3.0	ug/L		05/11/21 07:52	05/11/21 09:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*96*		*28 - 140*	*05/11/21 07:52*	*05/11/21 09:01*	*1*

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCS 410-124778/2-A
Matrix: Water
Analysis Batch: 124820

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 124778

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	61.6		ug/L		104	85 - 115		
Ethene (1C)			60.4	62.7		ug/L		104	83 - 115		
Methane (1C)			59.4	59.6		ug/L		100	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*104*		*28 - 140*

Lab Sample ID: LCSD 410-124778/3-A
Matrix: Water
Analysis Batch: 124820

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 124778

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	59.3		ug/L		100	85 - 115	4	20
Ethene (1C)			60.4	60.0		ug/L		99	83 - 115	4	20
Methane (1C)			59.4	57.4		ug/L		97	85 - 115	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*100*		*28 - 140*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-125634/1-A
Matrix: Water
Analysis Batch: 125806

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 125634

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		05/12/21 17:40	05/13/21 06:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*95*		*46 - 136*	*05/12/21 17:40*	*05/13/21 06:50*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*94*		*46 - 136*	*05/12/21 17:40*	*05/13/21 06:50*	*1*

Lab Sample ID: LCS 410-125634/2-A
Matrix: Water
Analysis Batch: 125806

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 125634

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.166		ug/L		129	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*97*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*97*		*46 - 136*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: LCSD 410-125634/3-A
Matrix: Water
Analysis Batch: 125806

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 125634

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.158		ug/L		123	60 - 140	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*90*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*95*		*46 - 136*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 410-124767/4
Matrix: Water
Analysis Batch: 124767

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1000	300	ug/L			05/11/21 05:35	1

Lab Sample ID: LCS 410-124767/3
Matrix: Water
Analysis Batch: 124767

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			7500	7710		ug/L		103	90 - 110		

Lab Sample ID: MB 410-124769/4
Matrix: Water
Analysis Batch: 124769

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1000	300	ug/L			05/11/21 07:48	1

Lab Sample ID: LCS 410-124769/3
Matrix: Water
Analysis Batch: 124769

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			7500	7090		ug/L		95	90 - 110		

Lab Sample ID: MB 410-125607/4
Matrix: Water
Analysis Batch: 125607

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1000	300	ug/L			05/12/21 10:12	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 410-125607/3
Matrix: Water
Analysis Batch: 125607

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	7500	7890		ug/L		105	90 - 110

Lab Sample ID: MB 410-126032/4
Matrix: Water
Analysis Batch: 126032

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1000	300	ug/L			05/13/21 12:37	1

Lab Sample ID: LCS 410-126032/3
Matrix: Water
Analysis Batch: 126032

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	7500	7300		ug/L		97	90 - 110

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-124566/1-A
Matrix: Water
Analysis Batch: 125775

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 124566

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		500	96	ug/L		05/10/21 17:12	05/12/21 19:58	1
Iron	ND		200	40	ug/L		05/10/21 17:12	05/12/21 19:58	1

Lab Sample ID: LCS 410-124566/2-A
Matrix: Water
Analysis Batch: 125775

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 124566

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	400	412	J	ug/L		103	80 - 120
Iron	400	393		ug/L		98	80 - 120

Lab Sample ID: MB 410-124572/1-A
Matrix: Water
Analysis Batch: 125178

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 124572

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		500	96	ug/L		05/10/21 17:26	05/11/21 16:10	1
Iron	ND		200	40	ug/L		05/10/21 17:26	05/11/21 16:10	1

Lab Sample ID: LCS 410-124572/2-A
Matrix: Water
Analysis Batch: 125178

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 124572

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	400	384	J	ug/L		96	80 - 120
Iron	400	394		ug/L		98	80 - 120

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 410-124690/1-A
Matrix: Water
Analysis Batch: 126107

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 124690

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		500	96	ug/L		05/11/21 02:30	05/13/21 13:34	1
Iron	ND		200	40	ug/L		05/11/21 02:30	05/13/21 13:34	1

Lab Sample ID: LCS 410-124690/2-A
Matrix: Water
Analysis Batch: 126107

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 124690

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	400	420	J	ug/L		105	80 - 120
Iron	400	455		ug/L		114	80 - 120

Lab Sample ID: LCSD 410-124690/3-A
Matrix: Water
Analysis Batch: 126107

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 124690

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	400	427	J	ug/L		107	80 - 120	2	20
Iron	400	448		ug/L		112	80 - 120	2	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 410-124697/1-A
Matrix: Water
Analysis Batch: 125505

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 124697

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/11/21 03:58	05/11/21 21:35	1

Lab Sample ID: LCS 410-124697/2-A
Matrix: Water
Analysis Batch: 125505

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 124697

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	30.0	31.2		ug/L		104	90 - 115

Lab Sample ID: LCSD 410-124697/3-A
Matrix: Water
Analysis Batch: 125505

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 124697

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	30.0	31.8		ug/L		106	90 - 115	2	20

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 410-126089/83
Matrix: Water
Analysis Batch: 126089

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8000	8000	ug/L			05/12/21 23:54	1

Method: 2320B-2011 - Alkalinity, Total (Continued)

Lab Sample ID: LCS 410-126089/84
Matrix: Water
Analysis Batch: 126089

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Alkalinity as CaCO3 to pH 4.5			189000	187000		ug/L		99	82 - 106		

Lab Sample ID: 410-39001-3 DU
Matrix: Water
Analysis Batch: 126089

Client Sample ID: URS-5_20210506
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	1100000			1130000		ug/L				0.6	5

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 410-125834/2-A
Matrix: Water
Analysis Batch: 128342

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 125834

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		1000	500	ug/L		05/13/21 07:15	05/19/21 13:50	1

Lab Sample ID: LCS 410-125834/1-A
Matrix: Water
Analysis Batch: 128342

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 125834

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Kjeldahl Nitrogen			4000	3880		ug/L		97	90 - 110		

Lab Sample ID: 410-39001-3 MS
Matrix: Water
Analysis Batch: 128342

Client Sample ID: URS-5_20210506
Prep Type: Total/NA
Prep Batch: 125834

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Kjeldahl Nitrogen	5900		5000	10500		ug/L		92	90 - 110		

Lab Sample ID: 410-39001-3 DU
Matrix: Water
Analysis Batch: 128342

Client Sample ID: URS-5_20210506
Prep Type: Total/NA
Prep Batch: 125834

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Kjeldahl Nitrogen	5900			5820		ug/L				0.9	20

Lab Sample ID: MB 410-126098/2-A
Matrix: Water
Analysis Batch: 128733

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 126098

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		1000	500	ug/L		05/13/21 14:24	05/20/21 09:34	1

Method: 351.2 - Nitrogen, Total Kjeldahl (Continued)

Lab Sample ID: LCS 410-126098/1-A
Matrix: Water
Analysis Batch: 128733

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 126098

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	4000	3610		ug/L		90	90 - 110

Lab Sample ID: 410-39001-7 MS
Matrix: Water
Analysis Batch: 128733

Client Sample ID: S-273_20210506
Prep Type: Total/NA
Prep Batch: 126098

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	5000		5000	10300		ug/L		106	90 - 110

Lab Sample ID: 410-39001-7 DU
Matrix: Water
Analysis Batch: 128733

Client Sample ID: S-273_20210506
Prep Type: Total/NA
Prep Batch: 126098

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Kjeldahl Nitrogen	5000		5370		ug/L		6	20

Lab Sample ID: MB 410-126353/2-A
Matrix: Water
Analysis Batch: 128284

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 126353

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		1000	500	ug/L		05/14/21 07:15	05/19/21 10:15	1

Lab Sample ID: LCS 410-126353/1-A
Matrix: Water
Analysis Batch: 128284

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 126353

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	4000	3720		ug/L		93	90 - 110

Method: 5310 B-2011 - Carbon, Total and Total Inorganic

Lab Sample ID: MB 410-125988/37
Matrix: Water
Analysis Batch: 125988

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Carbon	ND		1000	500	ug/L			05/12/21 17:41	1

Lab Sample ID: MB 410-125988/5
Matrix: Water
Analysis Batch: 125988

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Carbon	ND		1000	500	ug/L			05/12/21 11:56	1

Method: 5310 B-2011 - Carbon, Total and Total Inorganic (Continued)

Lab Sample ID: LCS 410-125988/36
Matrix: Water
Analysis Batch: 125988

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Carbon	25000	25000		ug/L		100	91 - 115

Lab Sample ID: LCS 410-125988/4
Matrix: Water
Analysis Batch: 125988

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Carbon	25000	26500		ug/L		106	91 - 115

Lab Sample ID: 410-39001-8 MS
Matrix: Water
Analysis Batch: 125988

Client Sample ID: S-378_20210506
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Carbon	97000		100000	200000		ug/L		102	91 - 115

Lab Sample ID: 410-39001-8 DU
Matrix: Water
Analysis Batch: 125988

Client Sample ID: S-378_20210506
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Carbon	97000		103000		ug/L		6	20

Method: 5310C-2011 - Total Organic Carbon/Persulfate - Ultrav

Lab Sample ID: MB 410-125994/25
Matrix: Water
Analysis Batch: 125994

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	500	ug/L			05/13/21 00:43	1

Lab Sample ID: LCS 410-125994/24
Matrix: Water
Analysis Batch: 125994

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	25000	24700		ug/L		99	91 - 113

Lab Sample ID: MB 410-126506/5
Matrix: Water
Analysis Batch: 126506

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	500	ug/L			05/13/21 19:03	1

Method: 5310C-2011 - Total Organic Carbon/Persulfate - Ultrav (Continued)

Lab Sample ID: LCS 410-126506/4
Matrix: Water
Analysis Batch: 126506

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	25000	23400		ug/L		93	91 - 113

Lab Sample ID: MB 410-126741/5
Matrix: Water
Analysis Batch: 126741

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	500	ug/L			05/14/21 18:02	1

Lab Sample ID: LCS 410-126741/4
Matrix: Water
Analysis Batch: 126741

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	25000	24000		ug/L		96	91 - 113

GC/MS VOA

Analysis Batch: 125304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-1	S-444_20210506	Total/NA	Water	8260C/UST	
410-39001-2	S-42I_20210506	Total/NA	Water	8260C/UST	
410-39001-3	URS-5_20210506	Total/NA	Water	8260C/UST	
410-39001-3 - DL	URS-5_20210506	Total/NA	Water	8260C/UST	
410-39001-4	S-87I_20210506	Total/NA	Water	8260C/UST	
410-39001-5	S-449_20210506	Total/NA	Water	8260C/UST	
410-39001-5 - DL	S-449_20210506	Total/NA	Water	8260C/UST	
410-39001-6	S-448_20210506	Total/NA	Water	8260C/UST	
410-39001-7	S-273_20210506	Total/NA	Water	8260C/UST	
410-39001-8	S-378_20210506	Total/NA	Water	8260C/UST	
410-39001-9	TB_20210507	Total/NA	Water	8260C/UST	
MB 410-125304/6	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-125304/4	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-125304/5	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

Analysis Batch: 125930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-7 - DL	S-273_20210506	Total/NA	Water	8260C/UST	
410-39001-8 - DL	S-378_20210506	Total/NA	Water	8260C/UST	
MB 410-125930/6	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-125930/4	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-125930/5	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

Analysis Batch: 127638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-4 - DL	S-87I_20210506	Total/NA	Water	8260C/UST	
MB 410-127638/6	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-127638/4	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-127638/5	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

GC/MS Semi VOA

Prep Batch: 125830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-1	S-444_20210506	Total/NA	Water	3510C	
410-39001-2	S-42I_20210506	Total/NA	Water	3510C	
410-39001-3 - DL	URS-5_20210506	Total/NA	Water	3510C	
410-39001-3	URS-5_20210506	Total/NA	Water	3510C	
410-39001-4	S-87I_20210506	Total/NA	Water	3510C	
MB 410-125830/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-125830/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-125830/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 126158

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-5	S-449_20210506	Total/NA	Water	3510C	
410-39001-6	S-448_20210506	Total/NA	Water	3510C	
410-39001-7	S-273_20210506	Total/NA	Water	3510C	
410-39001-8 - DL	S-378_20210506	Total/NA	Water	3510C	
410-39001-8	S-378_20210506	Total/NA	Water	3510C	
MB 410-126158/1-A	Method Blank	Total/NA	Water	3510C	

GC/MS Semi VOA (Continued)

Prep Batch: 126158 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-126158/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 126273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-125830/1-A	Method Blank	Total/NA	Water	8270D	125830
LCS 410-125830/2-A	Lab Control Sample	Total/NA	Water	8270D	125830
LCSD 410-125830/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	125830

Analysis Batch: 126500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-1	S-444_20210506	Total/NA	Water	8270D	125830
410-39001-2	S-42I_20210506	Total/NA	Water	8270D	125830
410-39001-3	URS-5_20210506	Total/NA	Water	8270D	125830
410-39001-4	S-87I_20210506	Total/NA	Water	8270D	125830

Analysis Batch: 126971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-3 - DL	URS-5_20210506	Total/NA	Water	8270D	125830
410-39001-5	S-449_20210506	Total/NA	Water	8270D	126158
410-39001-6	S-448_20210506	Total/NA	Water	8270D	126158
410-39001-7	S-273_20210506	Total/NA	Water	8270D	126158
410-39001-8	S-378_20210506	Total/NA	Water	8270D	126158
MB 410-126158/1-A	Method Blank	Total/NA	Water	8270D	126158
LCS 410-126158/2-A	Lab Control Sample	Total/NA	Water	8270D	126158

Analysis Batch: 128082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-8 - DL	S-378_20210506	Total/NA	Water	8270D	126158

GC VOA

Prep Batch: 124367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-1	S-444_20210506	Total/NA	Water	RSK-175	
410-39001-3	URS-5_20210506	Total/NA	Water	RSK-175	
410-39001-4	S-87I_20210506	Total/NA	Water	RSK-175	
MB 410-124367/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-124367/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-124367/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Prep Batch: 124370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-5	S-449_20210506	Total/NA	Water	RSK-175	
410-39001-7	S-273_20210506	Total/NA	Water	RSK-175	
410-39001-8	S-378_20210506	Total/NA	Water	RSK-175	
MB 410-124370/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-124370/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-124370/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

GC VOA

Analysis Batch: 124380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-1	S-444_20210506	Total/NA	Water	RSK-175	124367
410-39001-3	URS-5_20210506	Total/NA	Water	RSK-175	124367
410-39001-4	S-87I_20210506	Total/NA	Water	RSK-175	124367
410-39001-5	S-449_20210506	Total/NA	Water	RSK-175	124370
410-39001-7	S-273_20210506	Total/NA	Water	RSK-175	124370
410-39001-8	S-378_20210506	Total/NA	Water	RSK-175	124370
MB 410-124367/1-A	Method Blank	Total/NA	Water	RSK-175	124367
MB 410-124370/1-A	Method Blank	Total/NA	Water	RSK-175	124370
LCS 410-124367/2-A	Lab Control Sample	Total/NA	Water	RSK-175	124367
LCS 410-124370/2-A	Lab Control Sample	Total/NA	Water	RSK-175	124370
LCSD 410-124367/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	124367
LCSD 410-124370/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	124370

Prep Batch: 124778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-1 - DL	S-444_20210506	Total/NA	Water	RSK-175	
410-39001-2	S-42I_20210506	Total/NA	Water	RSK-175	
410-39001-3 - DL	URS-5_20210506	Total/NA	Water	RSK-175	
410-39001-5 - DL	S-449_20210506	Total/NA	Water	RSK-175	
410-39001-6	S-448_20210506	Total/NA	Water	RSK-175	
410-39001-7 - DL	S-273_20210506	Total/NA	Water	RSK-175	
410-39001-8 - DL	S-378_20210506	Total/NA	Water	RSK-175	
MB 410-124778/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-124778/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-124778/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 124820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-1 - DL	S-444_20210506	Total/NA	Water	RSK-175	124778
410-39001-2	S-42I_20210506	Total/NA	Water	RSK-175	124778
410-39001-3 - DL	URS-5_20210506	Total/NA	Water	RSK-175	124778
410-39001-5 - DL	S-449_20210506	Total/NA	Water	RSK-175	124778
410-39001-6	S-448_20210506	Total/NA	Water	RSK-175	124778
410-39001-7 - DL	S-273_20210506	Total/NA	Water	RSK-175	124778
410-39001-8 - DL	S-378_20210506	Total/NA	Water	RSK-175	124778
MB 410-124778/1-A	Method Blank	Total/NA	Water	RSK-175	124778
LCS 410-124778/2-A	Lab Control Sample	Total/NA	Water	RSK-175	124778
LCSD 410-124778/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	124778

GC Semi VOA

Prep Batch: 125634

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-1	S-444_20210506	Total/NA	Water	8011	
410-39001-2	S-42I_20210506	Total/NA	Water	8011	
410-39001-3	URS-5_20210506	Total/NA	Water	8011	
410-39001-4	S-87I_20210506	Total/NA	Water	8011	
410-39001-5	S-449_20210506	Total/NA	Water	8011	
410-39001-6	S-448_20210506	Total/NA	Water	8011	
410-39001-7	S-273_20210506	Total/NA	Water	8011	
410-39001-8	S-378_20210506	Total/NA	Water	8011	

GC Semi VOA (Continued)

Prep Batch: 125634 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-125634/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-125634/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-125634/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 125806

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-1	S-444_20210506	Total/NA	Water	8011	125634
410-39001-2	S-42I_20210506	Total/NA	Water	8011	125634
410-39001-3	URS-5_20210506	Total/NA	Water	8011	125634
410-39001-4	S-87I_20210506	Total/NA	Water	8011	125634
410-39001-5	S-449_20210506	Total/NA	Water	8011	125634
410-39001-6	S-448_20210506	Total/NA	Water	8011	125634
410-39001-7	S-273_20210506	Total/NA	Water	8011	125634
410-39001-8	S-378_20210506	Total/NA	Water	8011	125634
MB 410-125634/1-A	Method Blank	Total/NA	Water	8011	125634
LCS 410-125634/2-A	Lab Control Sample	Total/NA	Water	8011	125634
LCSD 410-125634/3-A	Lab Control Sample Dup	Total/NA	Water	8011	125634

HPLC/IC

Analysis Batch: 124767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-4	S-87I_20210506	Total/NA	Water	EPA 300.0 R2.1	
410-39001-5	S-449_20210506	Total/NA	Water	EPA 300.0 R2.1	
410-39001-6	S-448_20210506	Total/NA	Water	EPA 300.0 R2.1	
410-39001-7	S-273_20210506	Total/NA	Water	EPA 300.0 R2.1	
410-39001-8	S-378_20210506	Total/NA	Water	EPA 300.0 R2.1	
MB 410-124767/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-124767/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 124769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-1	S-444_20210506	Total/NA	Water	EPA 300.0 R2.1	
410-39001-2	S-42I_20210506	Total/NA	Water	EPA 300.0 R2.1	
MB 410-124769/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-124769/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 125607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-125607/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-125607/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 126032

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-3	URS-5_20210506	Total/NA	Water	EPA 300.0 R2.1	
MB 410-126032/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-126032/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 124566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-2	S-42I_20210506	Total Recoverable	Water	3005A	
410-39001-3	URS-5_20210506	Total Recoverable	Water	3005A	
410-39001-5	S-449_20210506	Total Recoverable	Water	3005A	
MB 410-124566/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-124566/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 124572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-1	S-444_20210506	Total Recoverable	Water	3005A	
410-39001-4	S-87I_20210506	Total Recoverable	Water	3005A	
410-39001-7	S-273_20210506	Total Recoverable	Water	3005A	
410-39001-8	S-378_20210506	Total Recoverable	Water	3005A	
MB 410-124572/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-124572/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 124690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-6	S-448_20210506	Total Recoverable	Water	3005A	
MB 410-124690/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-124690/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 410-124690/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	

Prep Batch: 124697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-1	S-444_20210506	Dissolved	Water	Non-Digest Prep	
410-39001-2	S-42I_20210506	Dissolved	Water	Non-Digest Prep	
410-39001-3	URS-5_20210506	Dissolved	Water	Non-Digest Prep	
410-39001-4	S-87I_20210506	Dissolved	Water	Non-Digest Prep	
410-39001-5	S-449_20210506	Dissolved	Water	Non-Digest Prep	
410-39001-6	S-448_20210506	Dissolved	Water	Non-Digest Prep	
410-39001-7	S-273_20210506	Dissolved	Water	Non-Digest Prep	
410-39001-8	S-378_20210506	Dissolved	Water	Non-Digest Prep	
MB 410-124697/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-124697/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	
LCSD 410-124697/3-A	Lab Control Sample Dup	Total/NA	Water	Non-Digest Prep	

Analysis Batch: 125178

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-1	S-444_20210506	Total Recoverable	Water	6010C	124572
410-39001-4	S-87I_20210506	Total Recoverable	Water	6010C	124572
410-39001-7	S-273_20210506	Total Recoverable	Water	6010C	124572
410-39001-8	S-378_20210506	Total Recoverable	Water	6010C	124572
MB 410-124572/1-A	Method Blank	Total Recoverable	Water	6010C	124572
LCS 410-124572/2-A	Lab Control Sample	Total Recoverable	Water	6010C	124572

Analysis Batch: 125505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-1	S-444_20210506	Dissolved	Water	6020A	124697
410-39001-2	S-42I_20210506	Dissolved	Water	6020A	124697
410-39001-3	URS-5_20210506	Dissolved	Water	6020A	124697
410-39001-4	S-87I_20210506	Dissolved	Water	6020A	124697

Metals (Continued)

Analysis Batch: 125505 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-5	S-449_20210506	Dissolved	Water	6020A	124697
410-39001-6	S-448_20210506	Dissolved	Water	6020A	124697
410-39001-7	S-273_20210506	Dissolved	Water	6020A	124697
410-39001-8	S-378_20210506	Dissolved	Water	6020A	124697
MB 410-124697/1-A	Method Blank	Total/NA	Water	6020A	124697
LCS 410-124697/2-A	Lab Control Sample	Total/NA	Water	6020A	124697
LCSD 410-124697/3-A	Lab Control Sample Dup	Total/NA	Water	6020A	124697

Analysis Batch: 125775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-2	S-42I_20210506	Total Recoverable	Water	6010C	124566
410-39001-3	URS-5_20210506	Total Recoverable	Water	6010C	124566
410-39001-5	S-449_20210506	Total Recoverable	Water	6010C	124566
MB 410-124566/1-A	Method Blank	Total Recoverable	Water	6010C	124566
LCS 410-124566/2-A	Lab Control Sample	Total Recoverable	Water	6010C	124566

Analysis Batch: 126107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-6	S-448_20210506	Total Recoverable	Water	6010C	124690
MB 410-124690/1-A	Method Blank	Total Recoverable	Water	6010C	124690
LCS 410-124690/2-A	Lab Control Sample	Total Recoverable	Water	6010C	124690
LCSD 410-124690/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010C	124690

General Chemistry

Analysis Batch: 124510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-1	S-444_20210506	Total/NA	Water	SM5310C	
410-39001-2	S-42I_20210506	Total/NA	Water	SM5310C	
410-39001-3	URS-5_20210506	Total/NA	Water	SM5310C	
410-39001-4	S-87I_20210506	Total/NA	Water	SM5310C	
410-39001-5	S-449_20210506	Total/NA	Water	SM5310C	
410-39001-6	S-448_20210506	Total/NA	Water	SM5310C	
410-39001-7	S-273_20210506	Total/NA	Water	SM5310C	
410-39001-8	S-378_20210506	Total/NA	Water	SM5310C	

Prep Batch: 125834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-1	S-444_20210506	Total/NA	Water	351.2	
410-39001-2	S-42I_20210506	Total/NA	Water	351.2	
410-39001-3	URS-5_20210506	Total/NA	Water	351.2	
MB 410-125834/2-A	Method Blank	Total/NA	Water	351.2	
LCS 410-125834/1-A	Lab Control Sample	Total/NA	Water	351.2	
410-39001-3 MS	URS-5_20210506	Total/NA	Water	351.2	
410-39001-3 DU	URS-5_20210506	Total/NA	Water	351.2	

Analysis Batch: 125988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-1	S-444_20210506	Total/NA	Water	5310 B-2011	
410-39001-2	S-42I_20210506	Total/NA	Water	5310 B-2011	
410-39001-3	URS-5_20210506	Total/NA	Water	5310 B-2011	

General Chemistry (Continued)

Analysis Batch: 125988 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-4	S-87I_20210506	Total/NA	Water	5310 B-2011	
410-39001-5	S-449_20210506	Total/NA	Water	5310 B-2011	
410-39001-6	S-448_20210506	Total/NA	Water	5310 B-2011	
410-39001-7	S-273_20210506	Total/NA	Water	5310 B-2011	
410-39001-8	S-378_20210506	Total/NA	Water	5310 B-2011	
MB 410-125988/37	Method Blank	Total/NA	Water	5310 B-2011	
MB 410-125988/5	Method Blank	Total/NA	Water	5310 B-2011	
LCS 410-125988/36	Lab Control Sample	Total/NA	Water	5310 B-2011	
LCS 410-125988/4	Lab Control Sample	Total/NA	Water	5310 B-2011	
410-39001-8 MS	S-378_20210506	Total/NA	Water	5310 B-2011	
410-39001-8 DU	S-378_20210506	Total/NA	Water	5310 B-2011	

Analysis Batch: 125994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-1	S-444_20210506	Total/NA	Water	5310C-2011	
410-39001-2	S-42I_20210506	Total/NA	Water	5310C-2011	
410-39001-3	URS-5_20210506	Total/NA	Water	5310C-2011	
410-39001-6	S-448_20210506	Total/NA	Water	5310C-2011	
410-39001-7	S-273_20210506	Total/NA	Water	5310C-2011	
MB 410-125994/25	Method Blank	Total/NA	Water	5310C-2011	
LCS 410-125994/24	Lab Control Sample	Total/NA	Water	5310C-2011	

Analysis Batch: 126089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-1	S-444_20210506	Total/NA	Water	2320B-2011	
410-39001-2	S-42I_20210506	Total/NA	Water	2320B-2011	
410-39001-3	URS-5_20210506	Total/NA	Water	2320B-2011	
410-39001-4	S-87I_20210506	Total/NA	Water	2320B-2011	
410-39001-5	S-449_20210506	Total/NA	Water	2320B-2011	
410-39001-6	S-448_20210506	Total/NA	Water	2320B-2011	
410-39001-7	S-273_20210506	Total/NA	Water	2320B-2011	
410-39001-8	S-378_20210506	Total/NA	Water	2320B-2011	
MB 410-126089/83	Method Blank	Total/NA	Water	2320B-2011	
LCS 410-126089/84	Lab Control Sample	Total/NA	Water	2320B-2011	
410-39001-3 DU	URS-5_20210506	Total/NA	Water	2320B-2011	

Prep Batch: 126098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-4	S-87I_20210506	Total/NA	Water	351.2	
410-39001-7	S-273_20210506	Total/NA	Water	351.2	
MB 410-126098/2-A	Method Blank	Total/NA	Water	351.2	
LCS 410-126098/1-A	Lab Control Sample	Total/NA	Water	351.2	
410-39001-7 MS	S-273_20210506	Total/NA	Water	351.2	
410-39001-7 DU	S-273_20210506	Total/NA	Water	351.2	

Prep Batch: 126353

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-5	S-449_20210506	Total/NA	Water	351.2	
410-39001-6	S-448_20210506	Total/NA	Water	351.2	
410-39001-8	S-378_20210506	Total/NA	Water	351.2	
MB 410-126353/2-A	Method Blank	Total/NA	Water	351.2	

General Chemistry (Continued)

Prep Batch: 126353 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-126353/1-A	Lab Control Sample	Total/NA	Water	351.2	

Analysis Batch: 126506

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-5	S-449_20210506	Total/NA	Water	5310C-2011	
410-39001-8	S-378_20210506	Total/NA	Water	5310C-2011	
MB 410-126506/5	Method Blank	Total/NA	Water	5310C-2011	
LCS 410-126506/4	Lab Control Sample	Total/NA	Water	5310C-2011	

Analysis Batch: 126741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-4	S-87I_20210506	Total/NA	Water	5310C-2011	
MB 410-126741/5	Method Blank	Total/NA	Water	5310C-2011	
LCS 410-126741/4	Lab Control Sample	Total/NA	Water	5310C-2011	

Analysis Batch: 128284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-5	S-449_20210506	Total/NA	Water	351.2	126353
410-39001-6	S-448_20210506	Total/NA	Water	351.2	126353
410-39001-8	S-378_20210506	Total/NA	Water	351.2	126353
MB 410-126353/2-A	Method Blank	Total/NA	Water	351.2	126353
LCS 410-126353/1-A	Lab Control Sample	Total/NA	Water	351.2	126353

Analysis Batch: 128342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-1	S-444_20210506	Total/NA	Water	351.2	125834
410-39001-2	S-42I_20210506	Total/NA	Water	351.2	125834
410-39001-3	URS-5_20210506	Total/NA	Water	351.2	125834
MB 410-125834/2-A	Method Blank	Total/NA	Water	351.2	125834
LCS 410-125834/1-A	Lab Control Sample	Total/NA	Water	351.2	125834
410-39001-3 MS	URS-5_20210506	Total/NA	Water	351.2	125834
410-39001-3 DU	URS-5_20210506	Total/NA	Water	351.2	125834

Analysis Batch: 128733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39001-4	S-87I_20210506	Total/NA	Water	351.2	126098
410-39001-7	S-273_20210506	Total/NA	Water	351.2	126098
MB 410-126098/2-A	Method Blank	Total/NA	Water	351.2	126098
LCS 410-126098/1-A	Lab Control Sample	Total/NA	Water	351.2	126098
410-39001-7 MS	S-273_20210506	Total/NA	Water	351.2	126098
410-39001-7 DU	S-273_20210506	Total/NA	Water	351.2	126098

Client Sample ID: S-444_20210506

Lab Sample ID: 410-39001-1

Date Collected: 05/06/21 08:55

Matrix: Water

Date Received: 05/07/21 17:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	125304	05/12/21 16:12	H9JD	ELLE
Total/NA	Prep	3510C			125830	05/13/21 09:50	R9CT	ELLE
Total/NA	Analysis	8270D		1	126500	05/14/21 18:46	WKV3	ELLE
Total/NA	Prep	RSK-175			124367	05/10/21 10:11	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	124380	05/10/21 21:40	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		124778	05/11/21 07:52	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	200	124820	05/11/21 12:42	LXF2	ELLE
Total/NA	Prep	8011			125634	05/12/21 17:40	QQ3P	ELLE
Total/NA	Analysis	8011		1	125806	05/13/21 09:23	AC3T	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	124769	05/11/21 11:49	GJ35	ELLE
Total Recoverable	Prep	3005A			124572	05/10/21 17:26	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	125178	05/11/21 18:01	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			124697	05/11/21 03:58	UJL8	ELLE
Dissolved	Analysis	6020A		1	125505	05/11/21 21:41	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	126089	05/13/21 01:33	DI9Q	ELLE
Total/NA	Prep	351.2			125834	05/13/21 07:15	UNJS	ELLE
Total/NA	Analysis	351.2		1	128342	05/19/21 14:53	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	125988	05/12/21 15:31	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		2	125994	05/13/21 05:52	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: S-42I_20210506

Lab Sample ID: 410-39001-2

Date Collected: 05/06/21 08:25

Matrix: Water

Date Received: 05/07/21 17:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	125304	05/12/21 12:11	H9JD	ELLE
Total/NA	Prep	3510C			125830	05/13/21 09:50	R9CT	ELLE
Total/NA	Analysis	8270D		1	126500	05/14/21 19:16	WKV3	ELLE
Total/NA	Prep	RSK-175			124778	05/11/21 07:52	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	124820	05/11/21 10:01	LXF2	ELLE
Total/NA	Prep	8011			125634	05/12/21 17:40	QQ3P	ELLE
Total/NA	Analysis	8011		1	125806	05/13/21 09:40	AC3T	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		10	124769	05/11/21 12:04	GJ35	ELLE
Total Recoverable	Prep	3005A			124566	05/10/21 17:12	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	125775	05/12/21 21:32	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			124697	05/11/21 03:58	UJL8	ELLE
Dissolved	Analysis	6020A		1	125505	05/11/21 22:03	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	126089	05/13/21 01:27	DI9Q	ELLE
Total/NA	Prep	351.2			125834	05/13/21 07:15	UNJS	ELLE
Total/NA	Analysis	351.2		1	128342	05/19/21 14:36	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	125988	05/12/21 16:04	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	125994	05/13/21 06:08	KGQ6	ELLE

Client Sample ID: S-42I_20210506

Lab Sample ID: 410-39001-2

Date Collected: 05/06/21 08:25

Matrix: Water

Date Received: 05/07/21 17:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: URS-5_20210506

Lab Sample ID: 410-39001-3

Date Collected: 05/06/21 10:21

Matrix: Water

Date Received: 05/07/21 17:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	125304	05/12/21 17:00	H9JD	ELLE
Total/NA	Analysis	8260C/UST	DL	50	125304	05/12/21 17:24	H9JD	ELLE
Total/NA	Prep	3510C			125830	05/13/21 09:50	R9CT	ELLE
Total/NA	Analysis	8270D		1	126500	05/14/21 19:46	WKV3	ELLE
Total/NA	Prep	3510C	DL		125830	05/13/21 09:50	R9CT	ELLE
Total/NA	Analysis	8270D	DL	5	126971	05/18/21 00:00	W6XI	ELLE
Total/NA	Prep	RSK-175			124367	05/10/21 10:11	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	124380	05/10/21 22:14	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		124778	05/11/21 07:52	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	100	124820	05/11/21 12:57	LXF2	ELLE
Total/NA	Prep	8011			125634	05/12/21 17:40	QQ3P	ELLE
Total/NA	Analysis	8011		1	125806	05/13/21 09:57	AC3T	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	126032	05/13/21 15:24	W5UX	ELLE
Total Recoverable	Prep	3005A			124566	05/10/21 17:12	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	125775	05/12/21 21:35	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			124697	05/11/21 03:58	UJL8	ELLE
Dissolved	Analysis	6020A		1	125505	05/11/21 21:55	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	126089	05/13/21 00:32	DI9Q	ELLE
Total/NA	Prep	351.2			125834	05/13/21 07:15	UNJS	ELLE
Total/NA	Analysis	351.2		1	128342	05/19/21 14:55	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	125988	05/12/21 16:14	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		10	125994	05/13/21 06:57	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: S-87I_20210506

Lab Sample ID: 410-39001-4

Date Collected: 05/06/21 11:55

Matrix: Water

Date Received: 05/07/21 17:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	125304	05/12/21 17:48	H9JD	ELLE
Total/NA	Analysis	8260C/UST	DL	500	127638	05/18/21 16:09	UKAD	ELLE
Total/NA	Prep	3510C			125830	05/13/21 09:50	R9CT	ELLE
Total/NA	Analysis	8270D		1	126500	05/14/21 20:16	WKV3	ELLE
Total/NA	Prep	RSK-175			124367	05/10/21 10:11	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	124380	05/10/21 22:31	LXF2	ELLE
Total/NA	Prep	8011			125634	05/12/21 17:40	QQ3P	ELLE
Total/NA	Analysis	8011		1	125806	05/13/21 10:14	AC3T	ELLE

Client Sample ID: S-87I_20210506

Lab Sample ID: 410-39001-4

Date Collected: 05/06/21 11:55

Matrix: Water

Date Received: 05/07/21 17:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		5	124767	05/11/21 07:29	GJ35	ELLE
Total Recoverable	Prep	3005A			124572	05/10/21 17:26	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	125178	05/11/21 18:08	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			124697	05/11/21 03:58	UJL8	ELLE
Dissolved	Analysis	6020A		1	125505	05/11/21 21:59	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	126089	05/13/21 01:00	DI9Q	ELLE
Total/NA	Prep	351.2			126098	05/13/21 14:24	F8AU	ELLE
Total/NA	Analysis	351.2		1	128733	05/20/21 09:57	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	125988	05/12/21 16:25	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		2	126741	05/14/21 19:08	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: S-449_20210506

Lab Sample ID: 410-39001-5

Date Collected: 05/06/21 12:20

Matrix: Water

Date Received: 05/07/21 17:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	125304	05/12/21 18:36	H9JD	ELLE
Total/NA	Analysis	8260C/UST	DL	50	125304	05/12/21 19:00	H9JD	ELLE
Total/NA	Prep	3510C			126158	05/13/21 17:42	FTV5	ELLE
Total/NA	Analysis	8270D		1	126971	05/18/21 01:30	W6XI	ELLE
Total/NA	Prep	RSK-175			124370	05/10/21 10:13	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	124380	05/10/21 23:55	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		124778	05/11/21 07:52	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	200	124820	05/11/21 13:12	LXF2	ELLE
Total/NA	Prep	8011			125634	05/12/21 17:40	QQ3P	ELLE
Total/NA	Analysis	8011		1	125806	05/13/21 10:31	AC3T	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	124767	05/11/21 07:39	GJ35	ELLE
Total Recoverable	Prep	3005A			124566	05/10/21 17:12	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	125775	05/12/21 21:38	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			124697	05/11/21 03:58	UJL8	ELLE
Dissolved	Analysis	6020A		1	125505	05/11/21 21:57	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	126089	05/13/21 01:20	DI9Q	ELLE
Total/NA	Prep	351.2			126353	05/14/21 07:15	UNJS	ELLE
Total/NA	Analysis	351.2		1	128284	05/19/21 10:44	P684	ELLE
Total/NA	Analysis	5310 B-2011		10	125988	05/12/21 16:36	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	126506	05/13/21 20:08	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: S-448_20210506

Lab Sample ID: 410-39001-6

Date Collected: 05/06/21 13:35

Matrix: Water

Date Received: 05/07/21 17:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	125304	05/12/21 12:35	H9JD	ELLE
Total/NA	Prep	3510C			126158	05/13/21 17:42	FTV5	ELLE
Total/NA	Analysis	8270D		1	126971	05/18/21 02:00	W6XI	ELLE
Total/NA	Prep	RSK-175			124778	05/11/21 07:52	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	124820	05/11/21 10:16	LXF2	ELLE
Total/NA	Prep	8011			125634	05/12/21 17:40	QQ3P	ELLE
Total/NA	Analysis	8011		1	125806	05/13/21 10:48	AC3T	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		10	124767	05/11/21 07:49	GJ35	ELLE
Total Recoverable	Prep	3005A			124690	05/11/21 02:30	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	126107	05/13/21 13:44	MDP5	ELLE
Dissolved	Prep	Non-Digest Prep			124697	05/11/21 03:58	UJL8	ELLE
Dissolved	Analysis	6020A		1	125505	05/11/21 22:01	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	126089	05/13/21 01:41	DI9Q	ELLE
Total/NA	Prep	351.2			126353	05/14/21 07:15	UNJS	ELLE
Total/NA	Analysis	351.2		1	128284	05/19/21 10:40	P684	ELLE
Total/NA	Analysis	5310 B-2011		10	125988	05/12/21 16:47	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	125994	05/13/21 07:46	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: S-273_20210506

Lab Sample ID: 410-39001-7

Date Collected: 05/06/21 14:00

Matrix: Water

Date Received: 05/07/21 17:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	125304	05/12/21 12:59	H9JD	ELLE
Total/NA	Analysis	8260C/UST	DL	10	125930	05/13/21 13:51	UKAD	ELLE
Total/NA	Prep	3510C			126158	05/13/21 17:42	FTV5	ELLE
Total/NA	Analysis	8270D		1	126971	05/18/21 02:31	W6XI	ELLE
Total/NA	Prep	RSK-175			124370	05/10/21 10:13	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	124380	05/11/21 00:32	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		124778	05/11/21 07:52	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	50	124820	05/11/21 13:28	LXF2	ELLE
Total/NA	Prep	8011			125634	05/12/21 17:40	QQ3P	ELLE
Total/NA	Analysis	8011		1	125806	05/13/21 11:05	AC3T	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	124767	05/11/21 07:59	GJ35	ELLE
Total Recoverable	Prep	3005A			124572	05/10/21 17:26	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	125178	05/11/21 18:11	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			124697	05/11/21 03:58	UJL8	ELLE
Dissolved	Analysis	6020A		1	125505	05/11/21 21:53	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	126089	05/13/21 01:07	DI9Q	ELLE
Total/NA	Prep	351.2			126098	05/13/21 14:24	F8AU	ELLE
Total/NA	Analysis	351.2		1	128733	05/20/21 09:40	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	125988	05/12/21 16:57	KGQ6	ELLE

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39001-1

Client Sample ID: S-273_20210506

Lab Sample ID: 410-39001-7

Date Collected: 05/06/21 14:00

Matrix: Water

Date Received: 05/07/21 17:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	5310C-2011		1	125994	05/13/21 08:02	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: S-378_20210506

Lab Sample ID: 410-39001-8

Date Collected: 05/06/21 15:20

Matrix: Water

Date Received: 05/07/21 17:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	125304	05/12/21 19:24	H9JD	ELLE
Total/NA	Analysis	8260C/UST	DL	50	125930	05/13/21 14:15	UKAD	ELLE
Total/NA	Prep	3510C			126158	05/13/21 17:42	FTV5	ELLE
Total/NA	Analysis	8270D		1	126971	05/18/21 03:01	W6XI	ELLE
Total/NA	Prep	3510C	DL		126158	05/13/21 17:42	FTV5	ELLE
Total/NA	Analysis	8270D	DL	5	128082	05/19/21 17:36	WKV3	ELLE
Total/NA	Prep	RSK-175			124370	05/10/21 10:13	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	124380	05/11/21 00:49	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		124778	05/11/21 07:52	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	200	124820	05/11/21 13:43	LXF2	ELLE
Total/NA	Prep	8011			125634	05/12/21 17:40	QQ3P	ELLE
Total/NA	Analysis	8011		1	125806	05/13/21 11:22	AC3T	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	124767	05/11/21 08:09	GJ35	ELLE
Total Recoverable	Prep	3005A			124572	05/10/21 17:26	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	125178	05/11/21 18:05	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			124697	05/11/21 03:58	UJL8	ELLE
Dissolved	Analysis	6020A		1	125505	05/11/21 22:05	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	126089	05/13/21 01:14	DI9Q	ELLE
Total/NA	Prep	351.2			126353	05/14/21 07:15	UNJS	ELLE
Total/NA	Analysis	351.2		1	128284	05/19/21 10:42	P684	ELLE
Total/NA	Analysis	5310 B-2011		10	125988	05/12/21 17:52	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	126506	05/13/21 20:24	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	124510	05/10/21 15:16	NKL9	ELLE

Client Sample ID: TB_20210507

Lab Sample ID: 410-39001-9

Date Collected: 05/03/21 00:00

Matrix: Water

Date Received: 05/07/21 17:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	125304	05/12/21 10:59	H9JD	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39001-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
5310 B-2011		Water	Total Carbon
SM5310C		Water	Total Inorganic Carbon

Method Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39001-1

Method	Method Description	Protocol	Laboratory
8260C/UST	Volatile Organic Compounds (GC/MS)	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
RSK-175	Dissolved Gases (GC)	RSK	ELLE
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	ELLE
6010C	Metals (ICP)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
2320B-2011	Alkalinity, Total	SM	ELLE
351.2	Nitrogen, Total Kjeldahl	MCAWW	ELLE
5310 B-2011	Carbon, Total and Total Inorganic	SM	ELLE
5310C-2011	Total Organic Carbon/Persulfate - Ultrav	SM	ELLE
SM5310C	Carbon, Total Inorganic	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
351.2	Nitrogen, Total Kjeldahl	MCAWW	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
8011	Microextraction	SW846	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique , RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39001-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-39001-1	S-444_20210506	Water	05/06/21 08:55	05/07/21 17:50	
410-39001-2	S-42I_20210506	Water	05/06/21 08:25	05/07/21 17:50	
410-39001-3	URS-5_20210506	Water	05/06/21 10:21	05/07/21 17:50	
410-39001-4	S-87I_20210506	Water	05/06/21 11:55	05/07/21 17:50	
410-39001-5	S-449_20210506	Water	05/06/21 12:20	05/07/21 17:50	
410-39001-6	S-448_20210506	Water	05/06/21 13:35	05/07/21 17:50	
410-39001-7	S-273_20210506	Water	05/06/21 14:00	05/07/21 17:50	
410-39001-8	S-378_20210506	Water	05/06/21 15:20	05/07/21 17:50	
410-39001-9	TB_20210507	Water	05/03/21 00:00	05/07/21 17:50	

Environmen st/Chain of Custody

410-39001-01 Chain of Custody

eurofins | Lancaster Laboratories Environmental

Acct. # _____

Client: Evergreen c/o Stantec			
Project Name/#: Former PES Annual GWS	Site ID #: 16657		
Project Manager: Andrew Bradley	P.O #: 213403363		
Sampler: Dane Hopkins, Maddie Bredehoeft, Andrea Hill	PWSID #:		
Phone #: 610.840.2541	Quote #:		
State where sample(s) were collected: PA			

Matrix: Soil ☐ Sediment ☐ | Water ☑ Ground ☐ Surface ☐ Potable ☐ NPDES ☐ | Other: Trip Blank / Field Blank

Requested

For Lab Use Only: SF #: _____ SCR #: _____

Preservation Codes: H / NP | N | P/NP | NP | H | N | N | S | NP | H

Sample Identification	Collection Date	Collection Time	Grab	Composite	Total # of Containers	Evergreen Petroleum Short List (refer to attached list of analytes)	Dissolved Lead (field filtered)	Total Inorganic Carbon (TIC)	Sulfate	Dissolved Headspace Gases (methane, ethane, ethene)	Total Iron	Total Calcium	Total Kjeldahl Nitrogen (TKN)	Alkalinity as CaCO3	VOC 8260 (including EDB 8260)	Remarks
S-444_20210506	5/6/2021	8:55	X		18	X	X	X	X	X	X	X	X	X		
S-42I_20210506	5/6/2021	8:25	X		18	X	X	X	X	X	X	X	X	X		
URS-5_20210506	5/6/2021	10:21	X		18	X	X	X	X	X	X	X	X	X		
S-87I_20210506	5/6/2021	11:55	X		18	X	X	X	X	X	X	X	X	X		
S-449_20210506	5/6/2021	12:20	X		18	X	X	X	X	X	X	X	X	X		
S-448_20210506	5/6/2021	13:35	X		18	X	X	X	X	X	X	X	X	X		
S-273_20210506	5/6/2021	14:00	X		18	X	X	X	X	X	X	X	X	X		
S-378_20210506	5/6/2021	15:20	X		18	X	X	X	X	X	X	X	X	X		
TB_20210507	5/3/2021	--			2										X	

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other; NP = Non-Preserved

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed:

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: abradley@stantec.com

Phone: 610.840.2541

Data Package Options (please check if required)

Type I (Validation/non-CLP) ☐ MA MCP ☐
Type III (Reduced non-CLP) ☐ CT RCP ☐
Type IV (CLP SOW) ☐ TX TRRP-13 ☐
Type VI (Raw Data Only) ☐

EDD Required? Yes ☑ No ☐ If yes, format: EQUIS

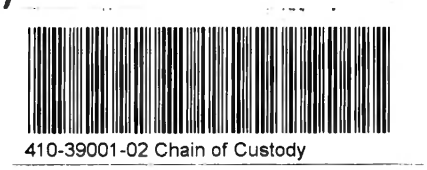
	Relinquished by:	Date	Time	Received by:	Date	Time
1	Dane	5/7/21	1350		5/7/21	13:50
2						
3						
4						
5					5-7-21	1750

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt 5.3-5.4 °C

Evergreen Petroleum Short List (June 2016)



VOCs by EPA Method 8260	CAS No.
Benzene	71-43-2
Cumene	98-82-8
Dichloroethane, 1,2-	107-06-2
Ethylbenzene	100-41-4
Ethylene Dibromide*	106-93-4
Methyl tert butyl ether	1634-04-4
Toluene	108-88-3
Trimethylbenzene, 1,2,4-	95-63-6
Trimethylbenzene, 1,3,5-	108-67-8
Xylenes	1330-20-7

SVOCs by EPA Method 8270	CAS No.
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Chrysene	218-01-9
Fluorene	86-73-7
Naphthalene**	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Metals by Method 6010/6020	CAS No.
Lead***	7439-92-1

*Ethylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

**Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

***Metals analysis should be total in soil and dissolved in groundwater.

This list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline and No. 1, 2, 4, 5, 6 Fuel Oils).

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-39001-1

Login Number: 39001

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Cyms, Carolyn M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	True	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-39021-1
Client Project/Site: Former PHL Refinery DDT Sampling

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Andrew Klingbeil

Authorized for release by:
5/20/2021 10:17:45 AM

Amek Carter, Project Manager
(717)556-7252
Loran.Carter@eurofinset.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
5/20/2021 10:17:46 AM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 6
Client Sample Results 7
Surrogate Summary 9
QC Sample Results 10
QC Association Summary 11
Lab Chronicle 12
Certification Summary 13
Method Summary 14
Sample Summary 15
Chain of Custody 16
Receipt Checklists 17

Definitions/Glossary

Client: Stantec Consulting Corp. Job ID: 410-39021-1
Project/Site: Former PHL Refinery DDT Sampling

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
B	Analyte was found in the blank.
S1-	Surrogate recovery exceeds control limits, low biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Former PHL Refinery DDT Sampling

Job ID: 410-39021-1

Job ID: 410-39021-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-39021-1

Receipt
The samples were received on 5/7/2021 5:50 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.1°C

Pesticides
Method 8081B: The surrogate recovery for the blank associated with preparation batch 410-126165 and analytical batch 410-126323 was outside the lower control limits: S-444_DDT_20210506 (410-39021-1), S-42I_DDT_20210506 (410-39021-2), S-449_DDT_20210506 (410-39021-3) and S-378_DDT_20210506 (410-39021-4). Re-extraction and/or re-analysis was performed outside of holding time with acceptable results.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Job ID: 410-39021-1
Project/Site: Former PHL Refinery DDT Sampling

Client Sample ID: S-444_DDT_20210506 **Lab Sample ID: 410-39021-1**

No Detections.

Client Sample ID: S-42I_DDT_20210506 **Lab Sample ID: 410-39021-2**

No Detections.

Client Sample ID: S-449_DDT_20210506 **Lab Sample ID: 410-39021-3**

No Detections.

Client Sample ID: S-378_DDT_20210506 **Lab Sample ID: 410-39021-4**

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: S-444_DDT_20210506 — Lab Sample ID: 410-39021-1

Date Collected: 05/06/21 08:55 — **Matrix: Water**
Date Received: 05/07/21 17:50

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p,p'-DDD (1C)	ND	B	0.032	0.0053	ug/L		05/13/21 17:56	05/14/21 10:28	1
p,p'-DDE (1C)	ND		0.032	0.0053	ug/L		05/13/21 17:56	05/14/21 10:28	1
p,p'-DDT (1C)	ND		0.032	0.0055	ug/L		05/13/21 17:56	05/14/21 10:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*64*		*32 - 149*	*05/13/21 17:56*	*05/14/21 10:28*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*63*		*32 - 149*	*05/13/21 17:56*	*05/14/21 10:28*	*1*
Tetrachloro-m-xylene (Surr) (1C)	*67*		*29 - 129*	*05/13/21 17:56*	*05/14/21 10:28*	*1*
Tetrachloro-m-xylene (Surr) (2C)	*66*		*29 - 129*	*05/13/21 17:56*	*05/14/21 10:28*	*1*

Client Sample ID: S-42I_DDT_20210506 — Lab Sample ID: 410-39021-2

Date Collected: 05/06/21 08:25 — **Matrix: Water**
Date Received: 05/07/21 17:50

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p,p'-DDD (2C)	ND		0.17	0.028	ug/L		05/13/21 17:56	05/14/21 10:40	5
p,p'-DDE (2C)	ND		0.17	0.028	ug/L		05/13/21 17:56	05/14/21 10:40	5
p,p'-DDT (2C)	ND		0.17	0.030	ug/L		05/13/21 17:56	05/14/21 10:40	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*28*	*S1-*	*32 - 149*	*05/13/21 17:56*	*05/14/21 10:40*	*5*
DCB Decachlorobiphenyl (Surr) (2C)	*34*		*32 - 149*	*05/13/21 17:56*	*05/14/21 10:40*	*5*
Tetrachloro-m-xylene (Surr) (1C)	*73*		*29 - 129*	*05/13/21 17:56*	*05/14/21 10:40*	*5*
Tetrachloro-m-xylene (Surr) (2C)	*78*		*29 - 129*	*05/13/21 17:56*	*05/14/21 10:40*	*5*

Client Sample ID: S-449_DDT_20210506 — Lab Sample ID: 410-39021-3

Date Collected: 05/06/21 12:20 — **Matrix: Water**
Date Received: 05/07/21 17:50

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p,p'-DDD (1C)	ND	B	0.15	0.025	ug/L		05/13/21 17:56	05/14/21 10:52	5
p,p'-DDE (1C)	ND		0.15	0.025	ug/L		05/13/21 17:56	05/14/21 10:52	5
p,p'-DDT (1C)	ND		0.15	0.026	ug/L		05/13/21 17:56	05/14/21 10:52	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*34*		*32 - 149*	*05/13/21 17:56*	*05/14/21 10:52*	*5*
DCB Decachlorobiphenyl (Surr) (2C)	*36*		*32 - 149*	*05/13/21 17:56*	*05/14/21 10:52*	*5*
Tetrachloro-m-xylene (Surr) (1C)	*73*		*29 - 129*	*05/13/21 17:56*	*05/14/21 10:52*	*5*
Tetrachloro-m-xylene (Surr) (2C)	*67*		*29 - 129*	*05/13/21 17:56*	*05/14/21 10:52*	*5*

Client Sample ID: S-378_DDT_20210506 — Lab Sample ID: 410-39021-4

Date Collected: 05/06/21 15:20 — **Matrix: Water**
Date Received: 05/07/21 17:50

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p,p'-DDD (1C)	ND	B	0.15	0.026	ug/L		05/13/21 17:56	05/14/21 11:05	5
p,p'-DDE (1C)	ND		0.15	0.026	ug/L		05/13/21 17:56	05/14/21 11:05	5
p,p'-DDT (1C)	ND		0.15	0.027	ug/L		05/13/21 17:56	05/14/21 11:05	5

Client: Stantec Consulting Corp.
Project/Site: Former PHL Refinery DDT Sampling

Job ID: 410-39021-1

Client Sample ID: S-378_DDT_20210506
Date Collected: 05/06/21 15:20
Date Received: 05/07/21 17:50

Lab Sample ID: 410-39021-4
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	34		32 - 149	05/13/21 17:56	05/14/21 11:05	5
DCB Decachlorobiphenyl (Surr) (2C)	37		32 - 149	05/13/21 17:56	05/14/21 11:05	5
Tetrachloro-m-xylene (Surr) (1C)	106		29 - 129	05/13/21 17:56	05/14/21 11:05	5
Tetrachloro-m-xylene (Surr) (2C)	78		29 - 129	05/13/21 17:56	05/14/21 11:05	5

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Former PHL Refinery DDT Sampling

Job ID: 410-39021-1

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCB1	DCB2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(32-149)	(32-149)	(29-129)	(29-129)
410-39021-1	S-444_DDT_20210506	64	63	67	66
410-39021-2	S-42I_DDT_20210506	28 S1-	34	73	78
410-39021-3	S-449_DDT_20210506	34	36	73	67
410-39021-4	S-378_DDT_20210506	34	37	106	78
LCS 410-126165/2-A	Lab Control Sample	41	44	74	72
MB 410-126165/1-A	Method Blank	19 S1-	21 S1-	11 S1-	11 S1-

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene (Surr)

Client: Stantec Consulting Corp.
Project/Site: Former PHL Refinery DDT Sampling

Job ID: 410-39021-1

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-126165/1-A
Matrix: Water
Analysis Batch: 126323

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 126165

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p,p'-DDD (2C)	ND		0.030	0.0050	ug/L		05/13/21 17:56	05/14/21 07:12	1
p,p'-DDE (1C)	ND		0.030	0.0050	ug/L		05/13/21 17:56	05/14/21 07:12	1
p,p'-DDT (1C)	ND		0.030	0.0052	ug/L		05/13/21 17:56	05/14/21 07:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*19*	*S1-*	*32 - 149*	*05/13/21 17:56*	*05/14/21 07:12*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*21*	*S1-*	*32 - 149*	*05/13/21 17:56*	*05/14/21 07:12*	*1*
Tetrachloro-m-xylene (Surr) (1C)	*11*	*S1-*	*29 - 129*	*05/13/21 17:56*	*05/14/21 07:12*	*1*
Tetrachloro-m-xylene (Surr) (2C)	*11*	*S1-*	*29 - 129*	*05/13/21 17:56*	*05/14/21 07:12*	*1*

Lab Sample ID: LCS 410-126165/2-A
Matrix: Water
Analysis Batch: 126323

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 126165

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
p,p'-DDD (2C)	0.201	0.212		ug/L		105	42 - 148
p,p'-DDE (1C)	0.201	0.135		ug/L		67	22 - 138
p,p'-DDT (2C)	0.201	0.222		ug/L		110	40 - 145

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr) (1C)	*41*		*32 - 149*
DCB Decachlorobiphenyl (Surr) (2C)	*44*		*32 - 149*
Tetrachloro-m-xylene (Surr) (1C)	*74*		*29 - 129*
Tetrachloro-m-xylene (Surr) (2C)	*72*		*29 - 129*

QC Association Summary

Client: Stantec Consulting Corp.
Job ID: 410-39021-1
Project/Site: Former PHL Refinery DDT Sampling

GC Semi VOA

Prep Batch: 126165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39021-1	S-444_DDT_20210506	Total/NA	Water	3510C	
410-39021-2	S-42I_DDT_20210506	Total/NA	Water	3510C	
410-39021-3	S-449_DDT_20210506	Total/NA	Water	3510C	
410-39021-4	S-378_DDT_20210506	Total/NA	Water	3510C	
MB 410-126165/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-126165/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 126323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39021-1	S-444_DDT_20210506	Total/NA	Water	8081B	126165
410-39021-2	S-42I_DDT_20210506	Total/NA	Water	8081B	126165
410-39021-3	S-449_DDT_20210506	Total/NA	Water	8081B	126165
410-39021-4	S-378_DDT_20210506	Total/NA	Water	8081B	126165
MB 410-126165/1-A	Method Blank	Total/NA	Water	8081B	126165
LCS 410-126165/2-A	Lab Control Sample	Total/NA	Water	8081B	126165

Lab Chronicle

Client: Stantec Consulting Corp.
Job ID: 410-39021-1
Project/Site: Former PHL Refinery DDT Sampling

Client Sample ID: S-444_DDT_20210506
Lab Sample ID: 410-39021-1
Date Collected: 05/06/21 08:55
Matrix: Water
Date Received: 05/07/21 17:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			126165	05/13/21 17:56	FTV5	ELLE
Total/NA	Analysis	8081B		1	126323	05/14/21 10:28	WN7O	ELLE

Client Sample ID: S-42I_DDT_20210506
Lab Sample ID: 410-39021-2
Date Collected: 05/06/21 08:25
Matrix: Water
Date Received: 05/07/21 17:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			126165	05/13/21 17:56	FTV5	ELLE
Total/NA	Analysis	8081B		5	126323	05/14/21 10:40	WN7O	ELLE

Client Sample ID: S-449_DDT_20210506
Lab Sample ID: 410-39021-3
Date Collected: 05/06/21 12:20
Matrix: Water
Date Received: 05/07/21 17:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			126165	05/13/21 17:56	FTV5	ELLE
Total/NA	Analysis	8081B		5	126323	05/14/21 10:52	WN7O	ELLE

Client Sample ID: S-378_DDT_20210506
Lab Sample ID: 410-39021-4
Date Collected: 05/06/21 15:20
Matrix: Water
Date Received: 05/07/21 17:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			126165	05/13/21 17:56	FTV5	ELLE
Total/NA	Analysis	8081B		5	126323	05/14/21 11:05	WN7O	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp. Job ID: 410-39021-1
Project/Site: Former PHL Refinery DDT Sampling

Laboratory: Eurofins Lancaster Laboratories Env, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-22

Method Summary

Client: Stantec Consulting Corp.
Job ID: 410-39021-1
Project/Site: Former PHL Refinery DDT Sampling

Method	Method Description	Protocol	Laboratory
8081B	Organochlorine Pesticides (GC)	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Job ID: 410-39021-1
Project/Site: Former PHL Refinery DDT Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-39021-1	S-444_DDT_20210506	Water	05/06/21 08:55	05/07/21 17:50	
410-39021-2	S-42I_DDT_20210506	Water	05/06/21 08:25	05/07/21 17:50	
410-39021-3	S-449_DDT_20210506	Water	05/06/21 12:20	05/07/21 17:50	
410-39021-4	S-378_DDT_20210506	Water	05/06/21 15:20	05/07/21 17:50	

...ental Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

410-39021 Chain of Custody

Group # _____ Sample # _____

Client:	Evergreen c/o Stantec		
Project Name/#:	Former PHL Refinery DDT Sampling	Site ID #:	16657
Project Manager:	Andrew Klingbeil, Andrew Bradley	P.O. #:	213403363
Sampler:	Dane Hopkins, Maddie Bredehoeft, Andrea Hill	PWSID #:	
Phone #:	610.840.2541	Quote #:	
State where sample(s) were collected:	PA		

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Sediment	Water	Ground	Potable	Surface	NPDES	Other:	Trip Blank / Field Blank	Total # of Containers	Analyses Requested: 4,4'-DDT by SW 846 EPA 8081 (Preservation Code: NP)	4,4'-DDE by SW 846 EPA 8081 (NP)	4,4'-DDD by SW 846 EPA 8081 (NP)	Remarks
S-444_DDT_20210506	5/6/2021	8:55	X				X							2	X	X	X	
S-42I_DDT_20210506	5/6/2021	8:25	X				X							2	X	X	X	
S-449_DDT_20210506	5/6/2021	12:20	X				X							2	X	X	X	
S-378_DDT_20210506	5/6/2021	15:20	X				X							2	X	X	X	

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other; NP = Non-Preserved

For Lab Use Only: SF #: _____ SCR #: _____

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed:

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: aklingbeil@stantec.com, abradley@stantec.com

Phone: 610.840.2541

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type IV (CLP SOW)	☐	TX TRRP-13	☐
Type VI (Raw Data Only)	☐		

EDD Required? Yes ☑ No ☐ If yes, format: ___ EQUIS

	Relinquished by:	Date	Time	Received by:	Date	Time
1	Dane	5/7/21	1350		5/7/21	13:50
2		5/7	17:45		Date	Time
3		Date	Time		Date	Time
4		Date	Time		Date	Time
5		Date	Time		Date	Time

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt 0.1 °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

7045 0713

964 ③ 5/7/21

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-39021-1

Login Number: 39021

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Rivera, Tatiana

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-39177-1
Client Project/Site: Former PES Annual GWS

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Mr. Andrew Bradley

Authorized for release by:
5/20/2021 8:37:54 AM

Amek Carter, Project Manager
(717)556-7252
Loran.Carter@eurofinset.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
5/20/2021 8:37:54 AM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 6
Detection Summary 7
Client Sample Results 12
Surrogate Summary 31
QC Sample Results 34
QC Association Summary 50
Lab Chronicle 59
Certification Summary 66
Method Summary 67
Sample Summary 68
Chain of Custody 69
Receipt Checklists 72

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

HPLC/IC

Qualifier	Qualifier Description
FH	MS and/or MSD recovery above control limits.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-39177-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-39177-1

Receipt
The samples were received on 5/10/2021 6:05 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.5°C and 3.9°C

GC/MS VOA
Method 8260C_UST: The method requirement for no headspace was not met. The following volatile sample was re-analyzed with headspace in the sample container(s): S-271_20210507 (410-39177-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270D: Surrogate recovery for the following sample was outside control limits: ARCO-1_20210507 (410-39177-6). Re-extraction and/or re-analysis was performed outside of holding time with acceptable results.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8011: The 1,1,2,2-Tetrachloroethane surrogate recovery for the following samples was outside acceptance limits (high biased) on the primary column due to matrix interference: ARCO-3_20210507 (410-39177-8). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39177-1

Client Sample ID: S-271_20210507 — Lab Sample ID: 410-39177-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	7.6		5.0	2.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	9.2	J	25	1.5	ug/L	5		8260C/UST	Total/NA
Toluene	35		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	36		30	7.0	ug/L	5		8260C/UST	Total/NA
Methyl tert-butyl ether	290		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Benzene	120		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	78		25	1.0	ug/L	5		8260C/UST	Total/NA
t-Butyl alcohol	7300		2500	600	ug/L	50		8260C/UST	Total/NA
Anthracene	1.4		0.55	0.11	ug/L	1		8270D	Total/NA
Benzo[a]anthracene	0.13	J	0.55	0.11	ug/L	1		8270D	Total/NA
Benzo[a]pyrene	0.12	J	0.55	0.12	ug/L	1		8270D	Total/NA
Benzo[b]fluoranthene	0.11	J	0.55	0.11	ug/L	1		8270D	Total/NA
Chrysene	0.14	J	0.55	0.11	ug/L	1		8270D	Total/NA
Fluorene	9.8		0.55	0.13	ug/L	1		8270D	Total/NA
Phenanthrene	7.1		0.55	0.12	ug/L	1		8270D	Total/NA
Pyrene	0.87		0.55	0.11	ug/L	1		8270D	Total/NA
Ethane (1C)	7.8		5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	18000		500	300	ug/L	100		RSK-175	Total/NA
Calcium	78000		500	96	ug/L	1		6010C	Total Recoverable
Iron	59000		200	40	ug/L	1		6010C	Total Recoverable
Lead	9.1		0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	360000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	5300		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	120000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	21000		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	99000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: ARCO-1D_20210507 — Lab Sample ID: 410-39177-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	0.62	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Methyl tert-butyl ether	84		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Benzene	150		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Isopropylbenzene	0.76	J	5.0	0.20	ug/L	1		8260C/UST	Total/NA
Methane (1C)	92		5.0	3.0	ug/L	1		RSK-175	Total/NA
Sulfate	17000		5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	56000		500	96	ug/L	1		6010C	Total Recoverable
Iron	11000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	300000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	2800		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	63000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	2600		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	60000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: DUP-7_20210507 — Lab Sample ID: 410-39177-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	0.74	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Methyl tert-butyl ether	74		1.0	0.20	ug/L	1		8260C/UST	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample ID: DUP-7_20210507 (Continued)

Lab Sample ID: 410-39177-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	170		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Isopropylbenzene	0.89	J	5.0	0.20	ug/L	1		8260C/UST	Total/NA
Methane (1C)	98		5.0	3.0	ug/L	1		RSK-175	Total/NA
Sulfate	17000		5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	56000		500	96	ug/L	1		6010C	Total Recoverable
Iron	10000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	300000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	2700		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	76000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	2300		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	74000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: ARCO-2_20210507

Lab Sample ID: 410-39177-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	18		5.0	2.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	5.8	J	25	1.5	ug/L	5		8260C/UST	Total/NA
Toluene	40		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	76		30	7.0	ug/L	5		8260C/UST	Total/NA
Benzene	320		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	81		25	1.0	ug/L	5		8260C/UST	Total/NA
Anthracene	0.12	J	0.52	0.10	ug/L	1		8270D	Total/NA
Fluorene	1.8		0.52	0.13	ug/L	1		8270D	Total/NA
Naphthalene	1.6		0.52	0.10	ug/L	1		8270D	Total/NA
Phenanthrene	1.4		0.52	0.12	ug/L	1		8270D	Total/NA
Methane (1C) - DL	24000		1000	600	ug/L	200		RSK-175	Total/NA
Calcium	81000		500	96	ug/L	1		6010C	Total Recoverable
Iron	33000		200	40	ug/L	1		6010C	Total Recoverable
Lead	0.10	J	0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	560000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Carbon	120000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	5100		2000	1000	ug/L	2		5310C-2011	Total/NA
Total Inorganic Carbon	110000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-230_20210507

Lab Sample ID: 410-39177-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	39		10	4.0	ug/L	10		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	4.0	J	50	3.0	ug/L	10		8260C/UST	Total/NA
Toluene	120		10	2.0	ug/L	10		8260C/UST	Total/NA
Xylenes, Total	18	J	60	14	ug/L	10		8260C/UST	Total/NA
Methyl tert-butyl ether	2.4	J	10	2.0	ug/L	10		8260C/UST	Total/NA
1,2,4-Trimethylbenzene	11	J	50	10	ug/L	10		8260C/UST	Total/NA
Isopropylbenzene	2.3	J	50	2.0	ug/L	10		8260C/UST	Total/NA
Benzene - DL	8300		100	20	ug/L	100		8260C/UST	Total/NA
Anthracene	0.26	J	0.56	0.11	ug/L	1		8270D	Total/NA
Benzo[a]anthracene	0.15	J	0.56	0.11	ug/L	1		8270D	Total/NA
Benzo[a]pyrene	0.21	J	0.56	0.12	ug/L	1		8270D	Total/NA
Benzo[b]fluoranthene	0.33	J	0.56	0.11	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: S-230_20210507 (Continued)

Lab Sample ID: 410-39177-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chrysene	0.24	J	0.56	0.11	ug/L	1		8270D	Total/NA
Fluorene	0.72		0.56	0.13	ug/L	1		8270D	Total/NA
Naphthalene	8.9		0.56	0.11	ug/L	1		8270D	Total/NA
Phenanthrene	0.33	J	0.56	0.12	ug/L	1		8270D	Total/NA
Pyrene	0.50	J	0.56	0.11	ug/L	1		8270D	Total/NA
Methane (1C) - DL	3200		100	60	ug/L	20		RSK-175	Total/NA
Calcium	57000		500	96	ug/L	1		6010C	Total Recoverable
Iron	56000		200	40	ug/L	1		6010C	Total Recoverable
Lead	0.30	J	0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	260000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	1500		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	79000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	15000		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	64000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: ARCO-1_20210507

Lab Sample ID: 410-39177-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	3.9	J	5.0	2.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	2.8	J	25	1.5	ug/L	5		8260C/UST	Total/NA
Toluene	27		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	23	J	30	7.0	ug/L	5		8260C/UST	Total/NA
Benzene	290		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	29		25	1.0	ug/L	5		8260C/UST	Total/NA
Fluorene	0.51		0.51	0.12	ug/L	1		8270D	Total/NA
Naphthalene	0.75		0.51	0.10	ug/L	1		8270D	Total/NA
Phenanthrene	0.40	J	0.51	0.11	ug/L	1		8270D	Total/NA
Methane (1C) - DL	16000		500	300	ug/L	100		RSK-175	Total/NA
Calcium	74000		500	96	ug/L	1		6010C	Total Recoverable
Iron	25000		200	40	ug/L	1		6010C	Total Recoverable
Lead	0.10	J	0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	410000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	3000		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	92000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	6800		2000	1000	ug/L	2		5310C-2011	Total/NA
Total Inorganic Carbon	85000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-418_20210507

Lab Sample ID: 410-39177-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	97		10	4.0	ug/L	10		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	30	J	50	3.0	ug/L	10		8260C/UST	Total/NA
Toluene	70		10	2.0	ug/L	10		8260C/UST	Total/NA
Xylenes, Total	86		60	14	ug/L	10		8260C/UST	Total/NA
Methyl tert-butyl ether	28		10	2.0	ug/L	10		8260C/UST	Total/NA
1,2,4-Trimethylbenzene	45	J	50	10	ug/L	10		8260C/UST	Total/NA
Isopropylbenzene	80		50	2.0	ug/L	10		8260C/UST	Total/NA
t-Butyl alcohol	960		500	120	ug/L	10		8260C/UST	Total/NA
Benzene - DL	13000		100	20	ug/L	100		8260C/UST	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: S-418_20210507 (Continued)

Lab Sample ID: 410-39177-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluorene	1.1		0.59	0.14	ug/L	1		8270D	Total/NA
Naphthalene	27		0.59	0.12	ug/L	1		8270D	Total/NA
Phenanthrene	0.62		0.59	0.13	ug/L	1		8270D	Total/NA
Methane (1C) - DL	24000		1000	600	ug/L	200		RSK-175	Total/NA
Calcium	37000		500	96	ug/L	1		6010C	Total Recoverable
Iron	100000		200	40	ug/L	1		6010C	Total Recoverable
Lead	0.18	J	0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	180000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Carbon	87000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	12000		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	75000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: ARCO-3_20210507

Lab Sample ID: 410-39177-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	43		5.0	2.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	12	J	25	1.5	ug/L	5		8260C/UST	Total/NA
Toluene	95		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	97		30	7.0	ug/L	5		8260C/UST	Total/NA
1,2,4-Trimethylbenzene	7.2	J	25	5.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	71		25	1.0	ug/L	5		8260C/UST	Total/NA
Benzene - DL	1800		50	10	ug/L	50		8260C/UST	Total/NA
Anthracene	0.12	J	0.52	0.10	ug/L	1		8270D	Total/NA
Fluorene	1.5		0.52	0.12	ug/L	1		8270D	Total/NA
Naphthalene	14		0.52	0.10	ug/L	1		8270D	Total/NA
Phenanthrene	1.1		0.52	0.11	ug/L	1		8270D	Total/NA
Ethane (1C)	1.0	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	26000		1000	600	ug/L	200		RSK-175	Total/NA
Calcium	32000		500	96	ug/L	1		6010C	Total Recoverable
Iron	20000		200	40	ug/L	1		6010C	Total Recoverable
Lead	0.22	J	0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	200000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Carbon	50000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	5000		2000	1000	ug/L	2		5310C-2011	Total/NA
Total Inorganic Carbon	45000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: B-172_20210507

Lab Sample ID: 410-39177-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	7.5		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Sulfate	29000	FH	5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	42000		500	96	ug/L	1		6010C	Total Recoverable
Iron	83	J	200	40	ug/L	1		6010C	Total Recoverable
Lead	0.10	J	0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	120000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Carbon	23000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	1700		1000	500	ug/L	1		5310C-2011	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39177-1

Client Sample ID: B-172_20210507 (Continued)

Lab Sample ID: 410-39177-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Inorganic Carbon	21000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-39D_20210507

Lab Sample ID: 410-39177-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	24		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Benzene	0.69	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Methane (1C)	38		5.0	3.0	ug/L	1		RSK-175	Total/NA
Sulfate	290000		20000	6000	ug/L	20		EPA 300.0 R2.1	Total/NA
Calcium	94000		500	96	ug/L	1		6010C	Total Recoverable
Iron	860		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	310000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	12000		5000	2500	ug/L	5		351.2	Total/NA
Total Carbon	87000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	12000		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	75000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: FB_20210510

Lab Sample ID: 410-39177-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	230	J	500	96	ug/L	1		6010C	Total Recoverable

Client Sample ID: TB_20210510

Lab Sample ID: 410-39177-12

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: S-271_20210507
Date Collected: 05/07/21 08:35
Date Received: 05/10/21 18:05

Lab Sample ID: 410-39177-1
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**7.6**		5.0	2.0	ug/L			05/13/21 19:27	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			05/13/21 19:27	5
1,3,5-Trimethylbenzene	**9.2**	**J**	25	1.5	ug/L			05/13/21 19:27	5
Toluene	**35**		5.0	1.0	ug/L			05/13/21 19:27	5
Xylenes, Total	**36**		30	7.0	ug/L			05/13/21 19:27	5
Methyl tert-butyl ether	**290**		5.0	1.0	ug/L			05/13/21 19:27	5
Benzene	**120**		5.0	1.0	ug/L			05/13/21 19:27	5
1,2,4-Trimethylbenzene	ND		25	5.0	ug/L			05/13/21 19:27	5
Isopropylbenzene	**78**		25	1.0	ug/L			05/13/21 19:27	5
t-Butyl alcohol	**7300**		2500	600	ug/L			05/18/21 19:43	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*80 - 120*		*05/13/21 19:27*	*5*
1,2-Dichloroethane-d4 (Surr)	*111*		*80 - 120*		*05/18/21 19:43*	*50*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*05/13/21 19:27*	*5*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*05/18/21 19:43*	*50*
Dibromofluoromethane (Surr)	*93*		*80 - 120*		*05/13/21 19:27*	*5*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*05/18/21 19:43*	*50*
Toluene-d8 (Surr)	*110*		*80 - 120*		*05/13/21 19:27*	*5*
Toluene-d8 (Surr)	*108*		*80 - 120*		*05/18/21 19:43*	*50*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**1.4**		0.55	0.11	ug/L		05/13/21 17:42	05/15/21 07:11	1
Benzo[a]anthracene	**0.13**	**J**	0.55	0.11	ug/L		05/13/21 17:42	05/15/21 07:11	1
Benzo[a]pyrene	**0.12**	**J**	0.55	0.12	ug/L		05/13/21 17:42	05/15/21 07:11	1
Benzo[b]fluoranthene	**0.11**	**J**	0.55	0.11	ug/L		05/13/21 17:42	05/15/21 07:11	1
Benzo[g,h,i]perylene	ND		0.55	0.11	ug/L		05/13/21 17:42	05/15/21 07:11	1
Chrysene	**0.14**	**J**	0.55	0.11	ug/L		05/13/21 17:42	05/15/21 07:11	1
Fluorene	**9.8**		0.55	0.13	ug/L		05/13/21 17:42	05/15/21 07:11	1
Naphthalene	ND		0.55	0.11	ug/L		05/13/21 17:42	05/15/21 07:11	1
Phenanthrene	**7.1**		0.55	0.12	ug/L		05/13/21 17:42	05/15/21 07:11	1
Pyrene	**0.87**		0.55	0.11	ug/L		05/13/21 17:42	05/15/21 07:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*56*		*35 - 100*	*05/13/21 17:42*	*05/15/21 07:11*	*1*
Nitrobenzene-d5 (Surr)	*59*		*22 - 117*	*05/13/21 17:42*	*05/15/21 07:11*	*1*
p-Terphenyl-d14 (Surr)	*77*		*31 - 119*	*05/13/21 17:42*	*05/15/21 07:11*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**7.8**		5.0	1.0	ug/L		05/11/21 07:57	05/11/21 17:46	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/11/21 07:57	05/11/21 17:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*92*		*28 - 140*	*05/11/21 07:57*	*05/11/21 17:46*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**18000**		500	300	ug/L		05/12/21 08:02	05/12/21 13:23	100

Client Sample ID: S-271_20210507

Lab Sample ID: 410-39177-1

Date Collected: 05/07/21 08:35

Matrix: Water

Date Received: 05/10/21 18:05

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*109*		*28 - 140*	*05/12/21 08:02*	*05/12/21 13:23*	*100*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.028	0.0093	ug/L		05/15/21 09:16	05/17/21 09:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*124*		*46 - 136*	*05/15/21 09:16*	*05/17/21 09:32*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*118*		*46 - 136*	*05/15/21 09:16*	*05/17/21 09:32*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			05/12/21 10:40	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**78000**		500	96	ug/L		05/11/21 13:42	05/12/21 16:00	1
Iron	**59000**		200	40	ug/L		05/11/21 13:42	05/12/21 16:00	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**9.1**		0.52	0.073	ug/L		05/11/21 17:20	05/12/21 22:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**360000**		8000	8000	ug/L			05/13/21 04:03	1
Total Kjeldahl Nitrogen	**5300**		1000	500	ug/L		05/13/21 07:15	05/19/21 14:24	1
Total Carbon	**120000**		10000	5000	ug/L			05/12/21 18:24	10
Total Organic Carbon	**21000**		1000	500	ug/L			05/14/21 19:23	1
Total Inorganic Carbon	**99000**		2000	600	ug/L			05/20/21 10:27	1

Client Sample ID: ARCO-1D_20210507

Lab Sample ID: 410-39177-2

Date Collected: 05/07/21 08:40

Matrix: Water

Date Received: 05/10/21 18:05

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/13/21 16:15	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/13/21 16:15	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/13/21 16:15	1
Toluene	**0.62**	**J**	1.0	0.20	ug/L			05/13/21 16:15	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/13/21 16:15	1
Methyl tert-butyl ether	**84**		1.0	0.20	ug/L			05/13/21 16:15	1
Benzene	**150**		1.0	0.20	ug/L			05/13/21 16:15	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/13/21 16:15	1
Isopropylbenzene	**0.76**	**J**	5.0	0.20	ug/L			05/13/21 16:15	1
t-Butyl alcohol	ND		50	12	ug/L			05/13/21 16:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*80 - 120*		*05/13/21 16:15*	*1*
4-Bromofluorobenzene (Surr)	*112*		*80 - 120*		*05/13/21 16:15*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*05/13/21 16:15*	*1*

Client Sample ID: ARCO-1D_20210507
Date Collected: 05/07/21 08:40
Date Received: 05/10/21 18:05

Lab Sample ID: 410-39177-2
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*103*		*80 - 120*		*05/13/21 16:15*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.53	0.11	ug/L		05/13/21 17:42	05/15/21 07:39	1
Benzo[a]anthracene	ND		0.53	0.11	ug/L		05/13/21 17:42	05/15/21 07:39	1
Benzo[a]pyrene	ND		0.53	0.12	ug/L		05/13/21 17:42	05/15/21 07:39	1
Benzo[b]fluoranthene	ND		0.53	0.11	ug/L		05/13/21 17:42	05/15/21 07:39	1
Benzo[g,h,i]perylene	ND		0.53	0.11	ug/L		05/13/21 17:42	05/15/21 07:39	1
Chrysene	ND		0.53	0.11	ug/L		05/13/21 17:42	05/15/21 07:39	1
Fluorene	ND		0.53	0.13	ug/L		05/13/21 17:42	05/15/21 07:39	1
Naphthalene	ND		0.53	0.11	ug/L		05/13/21 17:42	05/15/21 07:39	1
Phenanthrene	ND		0.53	0.12	ug/L		05/13/21 17:42	05/15/21 07:39	1
Pyrene	ND		0.53	0.11	ug/L		05/13/21 17:42	05/15/21 07:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*64*		*35 - 100*	*05/13/21 17:42*	*05/15/21 07:39*	*1*
Nitrobenzene-d5 (Surr)	*68*		*22 - 117*	*05/13/21 17:42*	*05/15/21 07:39*	*1*
p-Terphenyl-d14 (Surr)	*76*		*31 - 119*	*05/13/21 17:42*	*05/15/21 07:39*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/11/21 07:57	05/11/21 18:02	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/11/21 07:57	05/11/21 18:02	1
Methane (1C)	**92**		5.0	3.0	ug/L		05/11/21 07:57	05/11/21 18:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*90*		*28 - 140*	*05/11/21 07:57*	*05/11/21 18:02*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0096	ug/L		05/15/21 09:16	05/17/21 09:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*112*		*46 - 136*	*05/15/21 09:16*	*05/17/21 09:49*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*107*		*46 - 136*	*05/15/21 09:16*	*05/17/21 09:49*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**17000**		5000	1500	ug/L			05/12/21 10:56	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**56000**		500	96	ug/L		05/11/21 13:42	05/12/21 16:50	1
Iron	**11000**		200	40	ug/L		05/11/21 13:42	05/12/21 16:50	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/11/21 17:20	05/12/21 22:42	1

Client Sample ID: ARCO-1D_20210507

Lab Sample ID: 410-39177-2

Date Collected: 05/07/21 08:40

Matrix: Water

Date Received: 05/10/21 18:05

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**300000**		8000	8000	ug/L			05/13/21 04:40	1
Total Kjeldahl Nitrogen	**2800**		1000	500	ug/L		05/13/21 07:15	05/19/21 14:32	1
Total Carbon	**63000**		10000	5000	ug/L			05/12/21 18:35	10
Total Organic Carbon	**2600**		1000	500	ug/L			05/14/21 01:15	1
Total Inorganic Carbon	**60000**		2000	600	ug/L			05/20/21 10:27	1

Client Sample ID: DUP-7_20210507

Lab Sample ID: 410-39177-3

Date Collected: 05/07/21 00:00

Matrix: Water

Date Received: 05/10/21 18:05

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/13/21 17:46	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/13/21 17:46	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/13/21 17:46	1
Toluene	**0.74**	**J**	1.0	0.20	ug/L			05/13/21 17:46	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/13/21 17:46	1
Methyl tert-butyl ether	**74**		1.0	0.20	ug/L			05/13/21 17:46	1
Benzene	**170**		1.0	0.20	ug/L			05/13/21 17:46	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/13/21 17:46	1
Isopropylbenzene	**0.89**	**J**	5.0	0.20	ug/L			05/13/21 17:46	1
t-Butyl alcohol	ND		50	12	ug/L			05/13/21 17:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*		*05/13/21 17:46*	*1*
4-Bromofluorobenzene (Surr)	*89*		*80 - 120*		*05/13/21 17:46*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*05/13/21 17:46*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/13/21 17:46*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.51	0.10	ug/L		05/13/21 17:42	05/16/21 16:48	1
Benzo[a]anthracene	ND		0.51	0.10	ug/L		05/13/21 17:42	05/16/21 16:48	1
Benzo[a]pyrene	ND		0.51	0.11	ug/L		05/13/21 17:42	05/16/21 16:48	1
Benzo[b]fluoranthene	ND		0.51	0.10	ug/L		05/13/21 17:42	05/16/21 16:48	1
Benzo[g,h,i]perylene	ND		0.51	0.10	ug/L		05/13/21 17:42	05/16/21 16:48	1
Chrysene	ND		0.51	0.10	ug/L		05/13/21 17:42	05/16/21 16:48	1
Fluorene	ND		0.51	0.12	ug/L		05/13/21 17:42	05/16/21 16:48	1
Naphthalene	ND		0.51	0.10	ug/L		05/13/21 17:42	05/16/21 16:48	1
Phenanthrene	ND		0.51	0.11	ug/L		05/13/21 17:42	05/16/21 16:48	1
Pyrene	ND		0.51	0.10	ug/L		05/13/21 17:42	05/16/21 16:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*71*		*35 - 100*	*05/13/21 17:42*	*05/16/21 16:48*	*1*
Nitrobenzene-d5 (Surr)	*73*		*22 - 117*	*05/13/21 17:42*	*05/16/21 16:48*	*1*
p-Terphenyl-d14 (Surr)	*81*		*31 - 119*	*05/13/21 17:42*	*05/16/21 16:48*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/11/21 07:57	05/11/21 18:19	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/11/21 07:57	05/11/21 18:19	1

Client Sample ID: DUP-7_20210507

Lab Sample ID: 410-39177-3

Date Collected: 05/07/21 00:00
Matrix: Water
Date Received: 05/10/21 18:05

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**98**		5.0	3.0	ug/L		05/11/21 07:57	05/11/21 18:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*86*		*28 - 140*	*05/11/21 07:57*	*05/11/21 18:19*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.028	0.0093	ug/L		05/15/21 09:16	05/17/21 10:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*115*		*46 - 136*	*05/15/21 09:16*	*05/17/21 10:06*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*112*		*46 - 136*	*05/15/21 09:16*	*05/17/21 10:06*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**17000**		5000	1500	ug/L			05/12/21 11:12	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**56000**		500	96	ug/L		05/11/21 13:42	05/12/21 16:41	1
Iron	**10000**		200	40	ug/L		05/11/21 13:42	05/12/21 16:41	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/11/21 17:20	05/12/21 22:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**300000**		8000	8000	ug/L			05/13/21 04:47	1
Total Kjeldahl Nitrogen	**2700**		1000	500	ug/L		05/13/21 07:15	05/19/21 14:21	1
Total Carbon	**76000**		10000	5000	ug/L			05/12/21 18:46	10
Total Organic Carbon	**2300**		1000	500	ug/L			05/14/21 01:30	1
Total Inorganic Carbon	**74000**		2000	600	ug/L			05/20/21 10:27	1

Client Sample ID: ARCO-2_20210507

Lab Sample ID: 410-39177-4

Date Collected: 05/07/21 10:00
Matrix: Water
Date Received: 05/10/21 18:05

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**18**		5.0	2.0	ug/L			05/13/21 22:07	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			05/13/21 22:07	5
1,3,5-Trimethylbenzene	**5.8**	**J**	25	1.5	ug/L			05/13/21 22:07	5
Toluene	**40**		5.0	1.0	ug/L			05/13/21 22:07	5
Xylenes, Total	**76**		30	7.0	ug/L			05/13/21 22:07	5
Methyl tert-butyl ether	ND		5.0	1.0	ug/L			05/13/21 22:07	5
Benzene	**320**		5.0	1.0	ug/L			05/13/21 22:07	5
1,2,4-Trimethylbenzene	ND		25	5.0	ug/L			05/13/21 22:07	5
Isopropylbenzene	**81**		25	1.0	ug/L			05/13/21 22:07	5
t-Butyl alcohol	ND		250	60	ug/L			05/13/21 22:07	5

Client Sample ID: ARCO-2_20210507

Date Collected: 05/07/21 10:00
Date Received: 05/10/21 18:05

Lab Sample ID: 410-39177-4

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*89*		*80 - 120*		*05/13/21 22:07*	*5*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*05/13/21 22:07*	*5*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*05/13/21 22:07*	*5*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/13/21 22:07*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**0.12**	**J**	0.52	0.10	ug/L		05/13/21 17:42	05/16/21 17:16	1
Benzo[a]anthracene	ND		0.52	0.10	ug/L		05/13/21 17:42	05/16/21 17:16	1
Benzo[a]pyrene	ND		0.52	0.12	ug/L		05/13/21 17:42	05/16/21 17:16	1
Benzo[b]fluoranthene	ND		0.52	0.10	ug/L		05/13/21 17:42	05/16/21 17:16	1
Benzo[g,h,i]perylene	ND		0.52	0.10	ug/L		05/13/21 17:42	05/16/21 17:16	1
Chrysene	ND		0.52	0.10	ug/L		05/13/21 17:42	05/16/21 17:16	1
Fluorene	**1.8**		0.52	0.13	ug/L		05/13/21 17:42	05/16/21 17:16	1
Naphthalene	**1.6**		0.52	0.10	ug/L		05/13/21 17:42	05/16/21 17:16	1
Phenanthrene	**1.4**		0.52	0.12	ug/L		05/13/21 17:42	05/16/21 17:16	1
Pyrene	ND		0.52	0.10	ug/L		05/13/21 17:42	05/16/21 17:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	*71*		*35 - 100*	*05/13/21 17:42*	*05/16/21 17:16*	*1*
Nitrobenzene-d5 (Surr)	*72*		*22 - 117*	*05/13/21 17:42*	*05/16/21 17:16*	*1*
p-Terphenyl-d14 (Surr)	*86*		*31 - 119*	*05/13/21 17:42*	*05/16/21 17:16*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/11/21 07:57	05/11/21 18:36	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/11/21 07:57	05/11/21 18:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Propene (1C)	*74*		*28 - 140*	*05/11/21 07:57*	*05/11/21 18:36*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**24000**		1000	600	ug/L		05/12/21 08:02	05/12/21 13:41	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Propene (1C)	*106*		*28 - 140*	*05/12/21 08:02*	*05/12/21 13:41*	*200*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.028	0.0094	ug/L		05/15/21 09:16	05/17/21 10:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane (Surr) (1C)	*119*		*46 - 136*	*05/15/21 09:16*	*05/17/21 10:23*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*114*		*46 - 136*	*05/15/21 09:16*	*05/17/21 10:23*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND	FH	5000	1500	ug/L			05/12/21 08:01	5

Client Sample ID: ARCO-2_20210507

Lab Sample ID: 410-39177-4

Date Collected: 05/07/21 10:00
Matrix: Water
Date Received: 05/10/21 18:05

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	81000		500	96	ug/L		05/11/21 13:42	05/12/21 16:54	1
Iron	33000		200	40	ug/L		05/11/21 13:42	05/12/21 16:54	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.10	J	0.52	0.073	ug/L		05/11/21 17:20	05/12/21 22:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	560000		8000	8000	ug/L			05/13/21 04:55	1
Total Kjeldahl Nitrogen	ND		1000	500	ug/L		05/13/21 07:15	05/19/21 14:26	1
Total Carbon	120000		10000	5000	ug/L			05/12/21 18:57	10
Total Organic Carbon	5100		2000	1000	ug/L			05/14/21 01:44	2
Total Inorganic Carbon	110000		2000	600	ug/L			05/20/21 10:27	1

Client Sample ID: S-230_20210507

Lab Sample ID: 410-39177-5

Date Collected: 05/07/21 10:55
Matrix: Water
Date Received: 05/10/21 18:05

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	39		10	4.0	ug/L			05/13/21 23:19	10
1,2-Dichloroethane	ND		10	3.0	ug/L			05/13/21 23:19	10
1,3,5-Trimethylbenzene	4.0	J	50	3.0	ug/L			05/13/21 23:19	10
Toluene	120		10	2.0	ug/L			05/13/21 23:19	10
Xylenes, Total	18	J	60	14	ug/L			05/13/21 23:19	10
Methyl tert-butyl ether	2.4	J	10	2.0	ug/L			05/13/21 23:19	10
1,2,4-Trimethylbenzene	11	J	50	10	ug/L			05/13/21 23:19	10
Isopropylbenzene	2.3	J	50	2.0	ug/L			05/13/21 23:19	10
t-Butyl alcohol	ND		500	120	ug/L			05/13/21 23:19	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*80 - 120*		*05/13/21 23:19*	*10*
4-Bromofluorobenzene (Surr)	*89*		*80 - 120*		*05/13/21 23:19*	*10*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*05/13/21 23:19*	*10*
Toluene-d8 (Surr)	*103*		*80 - 120*		*05/13/21 23:19*	*10*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	8300		100	20	ug/L			05/13/21 23:43	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*		*05/13/21 23:43*	*100*
4-Bromofluorobenzene (Surr)	*90*		*80 - 120*		*05/13/21 23:43*	*100*
Dibromofluoromethane (Surr)	*105*		*80 - 120*		*05/13/21 23:43*	*100*
Toluene-d8 (Surr)	*103*		*80 - 120*		*05/13/21 23:43*	*100*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	0.26	J	0.56	0.11	ug/L		05/13/21 17:42	05/16/21 17:44	1
Benzo[a]anthracene	0.15	J	0.56	0.11	ug/L		05/13/21 17:42	05/16/21 17:44	1

Client Sample ID: S-230_20210507
Date Collected: 05/07/21 10:55
Date Received: 05/10/21 18:05

Lab Sample ID: 410-39177-5
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.21	J	0.56	0.12	ug/L		05/13/21 17:42	05/16/21 17:44	1
Benzo[b]fluoranthene	0.33	J	0.56	0.11	ug/L		05/13/21 17:42	05/16/21 17:44	1
Benzo[g,h,i]perylene	ND		0.56	0.11	ug/L		05/13/21 17:42	05/16/21 17:44	1
Chrysene	0.24	J	0.56	0.11	ug/L		05/13/21 17:42	05/16/21 17:44	1
Fluorene	0.72		0.56	0.13	ug/L		05/13/21 17:42	05/16/21 17:44	1
Naphthalene	8.9		0.56	0.11	ug/L		05/13/21 17:42	05/16/21 17:44	1
Phenanthrene	0.33	J	0.56	0.12	ug/L		05/13/21 17:42	05/16/21 17:44	1
Pyrene	0.50	J	0.56	0.11	ug/L		05/13/21 17:42	05/16/21 17:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*67*		*35 - 100*	*05/13/21 17:42*	*05/16/21 17:44*	*1*
Nitrobenzene-d5 (Surr)	*70*		*22 - 117*	*05/13/21 17:42*	*05/16/21 17:44*	*1*
p-Terphenyl-d14 (Surr)	*74*		*31 - 119*	*05/13/21 17:42*	*05/16/21 17:44*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/11/21 07:57	05/11/21 18:53	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/11/21 07:57	05/11/21 18:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*84*		*28 - 140*	*05/11/21 07:57*	*05/11/21 18:53*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	3200		100	60	ug/L		05/12/21 08:02	05/12/21 13:59	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*104*		*28 - 140*	*05/12/21 08:02*	*05/12/21 13:59*	*20*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.028	0.0094	ug/L		05/15/21 09:16	05/17/21 10:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*109*		*46 - 136*	*05/15/21 09:16*	*05/17/21 10:40*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*109*		*46 - 136*	*05/15/21 09:16*	*05/17/21 10:40*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			05/12/21 08:34	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	57000		500	96	ug/L		05/11/21 13:44	05/12/21 17:03	1
Iron	56000		200	40	ug/L		05/11/21 13:44	05/12/21 17:03	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.30	J	0.52	0.073	ug/L		05/11/21 17:20	05/12/21 22:40	1

Client Sample ID: S-230_20210507

Lab Sample ID: 410-39177-5

Date Collected: 05/07/21 10:55

Matrix: Water

Date Received: 05/10/21 18:05

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**260000**		8000	8000	ug/L			05/13/21 04:09	1
Total Kjeldahl Nitrogen	**1500**		1000	500	ug/L		05/13/21 07:15	05/19/21 14:05	1
Total Carbon	**79000**		10000	5000	ug/L			05/12/21 19:07	10
Total Organic Carbon	**15000**		1000	500	ug/L			05/14/21 03:36	1
Total Inorganic Carbon	**64000**		2000	600	ug/L			05/20/21 10:27	1

Client Sample ID: ARCO-1_20210507

Lab Sample ID: 410-39177-6

Date Collected: 05/07/21 11:10

Matrix: Water

Date Received: 05/10/21 18:05

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**3.9**	**J**	5.0	2.0	ug/L			05/13/21 22:31	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			05/13/21 22:31	5
1,3,5-Trimethylbenzene	**2.8**	**J**	25	1.5	ug/L			05/13/21 22:31	5
Toluene	**27**		5.0	1.0	ug/L			05/13/21 22:31	5
Xylenes, Total	**23**	**J**	30	7.0	ug/L			05/13/21 22:31	5
Methyl tert-butyl ether	ND		5.0	1.0	ug/L			05/13/21 22:31	5
Benzene	**290**		5.0	1.0	ug/L			05/13/21 22:31	5
1,2,4-Trimethylbenzene	ND		25	5.0	ug/L			05/13/21 22:31	5
Isopropylbenzene	**29**		25	1.0	ug/L			05/13/21 22:31	5
t-Butyl alcohol	ND		250	60	ug/L			05/13/21 22:31	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*		*05/13/21 22:31*	*5*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*05/13/21 22:31*	*5*
Dibromofluoromethane (Surr)	*100*		*80 - 120*		*05/13/21 22:31*	*5*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/13/21 22:31*	*5*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.51	0.10	ug/L		05/13/21 17:42	05/16/21 18:12	1
Benzo[a]anthracene	ND		0.51	0.10	ug/L		05/13/21 17:42	05/16/21 18:12	1
Benzo[a]pyrene	ND		0.51	0.11	ug/L		05/13/21 17:42	05/16/21 18:12	1
Benzo[b]fluoranthene	ND		0.51	0.10	ug/L		05/13/21 17:42	05/16/21 18:12	1
Benzo[g,h,i]perylene	ND		0.51	0.10	ug/L		05/13/21 17:42	05/16/21 18:12	1
Chrysene	ND		0.51	0.10	ug/L		05/13/21 17:42	05/16/21 18:12	1
Fluorene	**0.51**		0.51	0.12	ug/L		05/13/21 17:42	05/16/21 18:12	1
Naphthalene	**0.75**		0.51	0.10	ug/L		05/13/21 17:42	05/16/21 18:12	1
Phenanthrene	**0.40**	**J**	0.51	0.11	ug/L		05/13/21 17:42	05/16/21 18:12	1
Pyrene	ND		0.51	0.10	ug/L		05/13/21 17:42	05/16/21 18:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*32*	*S1-*	*35 - 100*	*05/13/21 17:42*	*05/16/21 18:12*	*1*
Nitrobenzene-d5 (Surr)	*34*		*22 - 117*	*05/13/21 17:42*	*05/16/21 18:12*	*1*
p-Terphenyl-d14 (Surr)	*27*	*S1-*	*31 - 119*	*05/13/21 17:42*	*05/16/21 18:12*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/11/21 07:57	05/11/21 19:10	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/11/21 07:57	05/11/21 19:10	1

Client Sample ID: ARCO-1_20210507

Lab Sample ID: 410-39177-6

Date Collected: 05/07/21 11:10

Matrix: Water

Date Received: 05/10/21 18:05

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*83*		*28 - 140*	*05/11/21 07:57*	*05/11/21 19:10*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**16000**		500	300	ug/L		05/12/21 08:02	05/12/21 14:22	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*110*		*28 - 140*	*05/12/21 08:02*	*05/12/21 14:22*	*100*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.028	0.0095	ug/L		05/15/21 09:16	05/17/21 10:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*114*		*46 - 136*	*05/15/21 09:16*	*05/17/21 10:57*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*109*		*46 - 136*	*05/15/21 09:16*	*05/17/21 10:57*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			05/12/21 08:45	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**74000**		500	96	ug/L		05/11/21 13:42	05/12/21 16:03	1
Iron	**25000**		200	40	ug/L		05/11/21 13:42	05/12/21 16:03	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.10**	**J**	0.52	0.073	ug/L		05/11/21 17:20	05/12/21 22:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**410000**		8000	8000	ug/L			05/13/21 04:23	1
Total Kjeldahl Nitrogen	**3000**		1000	500	ug/L		05/13/21 07:15	05/19/21 14:07	1
Total Carbon	**92000**		10000	5000	ug/L			05/12/21 19:40	10
Total Organic Carbon	**6800**		2000	1000	ug/L			05/14/21 03:50	2
Total Inorganic Carbon	**85000**		2000	600	ug/L			05/20/21 10:27	1

Client Sample ID: S-418_20210507

Lab Sample ID: 410-39177-7

Date Collected: 05/07/21 12:30

Matrix: Water

Date Received: 05/10/21 18:05

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**97**		10	4.0	ug/L			05/14/21 00:06	10
1,2-Dichloroethane	ND		10	3.0	ug/L			05/14/21 00:06	10
1,3,5-Trimethylbenzene	**30**	**J**	50	3.0	ug/L			05/14/21 00:06	10
Toluene	**70**		10	2.0	ug/L			05/14/21 00:06	10
Xylenes, Total	**86**		60	14	ug/L			05/14/21 00:06	10
Methyl tert-butyl ether	**28**		10	2.0	ug/L			05/14/21 00:06	10
1,2,4-Trimethylbenzene	**45**	**J**	50	10	ug/L			05/14/21 00:06	10
Isopropylbenzene	**80**		50	2.0	ug/L			05/14/21 00:06	10

Client Sample ID: S-418_20210507
Date Collected: 05/07/21 12:30
Date Received: 05/10/21 18:05

Lab Sample ID: 410-39177-7
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
t-Butyl alcohol	960		500	120	ug/L			05/14/21 00:06	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*		*05/14/21 00:06*	*10*
4-Bromofluorobenzene (Surr)	*88*		*80 - 120*		*05/14/21 00:06*	*10*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*05/14/21 00:06*	*10*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/14/21 00:06*	*10*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	13000		100	20	ug/L			05/14/21 00:30	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*80 - 120*		*05/14/21 00:30*	*100*
4-Bromofluorobenzene (Surr)	*90*		*80 - 120*		*05/14/21 00:30*	*100*
Dibromofluoromethane (Surr)	*105*		*80 - 120*		*05/14/21 00:30*	*100*
Toluene-d8 (Surr)	*103*		*80 - 120*		*05/14/21 00:30*	*100*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.59	0.12	ug/L		05/13/21 17:42	05/16/21 18:40	1
Benzo[a]anthracene	ND		0.59	0.12	ug/L		05/13/21 17:42	05/16/21 18:40	1
Benzo[a]pyrene	ND		0.59	0.13	ug/L		05/13/21 17:42	05/16/21 18:40	1
Benzo[b]fluoranthene	ND		0.59	0.12	ug/L		05/13/21 17:42	05/16/21 18:40	1
Benzo[g,h,i]perylene	ND		0.59	0.12	ug/L		05/13/21 17:42	05/16/21 18:40	1
Chrysene	ND		0.59	0.12	ug/L		05/13/21 17:42	05/16/21 18:40	1
Fluorene	1.1		0.59	0.14	ug/L		05/13/21 17:42	05/16/21 18:40	1
Naphthalene	27		0.59	0.12	ug/L		05/13/21 17:42	05/16/21 18:40	1
Phenanthrene	0.62		0.59	0.13	ug/L		05/13/21 17:42	05/16/21 18:40	1
Pyrene	ND		0.59	0.12	ug/L		05/13/21 17:42	05/16/21 18:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*65*		*35 - 100*	*05/13/21 17:42*	*05/16/21 18:40*	*1*
Nitrobenzene-d5 (Surr)	*69*		*22 - 117*	*05/13/21 17:42*	*05/16/21 18:40*	*1*
p-Terphenyl-d14 (Surr)	*74*		*31 - 119*	*05/13/21 17:42*	*05/16/21 18:40*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/11/21 07:57	05/11/21 19:27	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/11/21 07:57	05/11/21 19:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*80*		*28 - 140*	*05/11/21 07:57*	*05/11/21 19:27*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	24000		1000	600	ug/L		05/12/21 08:02	05/12/21 14:40	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*106*		*28 - 140*	*05/12/21 08:02*	*05/12/21 14:40*	*200*

Client Sample ID: S-418_20210507

Lab Sample ID: 410-39177-7

Date Collected: 05/07/21 12:30

Matrix: Water

Date Received: 05/10/21 18:05

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.028	0.0093	ug/L		05/15/21 09:16	05/17/21 11:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*125*		*46 - 136*	*05/15/21 09:16*	*05/17/21 11:14*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*107*		*46 - 136*	*05/15/21 09:16*	*05/17/21 11:14*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			05/12/21 08:57	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**37000**		500	96	ug/L		05/11/21 13:44	05/12/21 17:00	1
Iron	**100000**		200	40	ug/L		05/11/21 13:44	05/12/21 17:00	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.18**	**J**	0.52	0.073	ug/L		05/11/21 17:20	05/12/21 22:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**180000**		8000	8000	ug/L			05/13/21 03:50	1
Total Kjeldahl Nitrogen	ND		1000	500	ug/L		05/13/21 07:15	05/19/21 14:19	1
Total Carbon	**87000**		10000	5000	ug/L			05/12/21 19:51	10
Total Organic Carbon	**12000**		1000	500	ug/L			05/14/21 04:04	1
Total Inorganic Carbon	**75000**		2000	600	ug/L			05/20/21 10:27	1

Client Sample ID: ARCO-3_20210507

Lab Sample ID: 410-39177-8

Date Collected: 05/07/21 12:30

Matrix: Water

Date Received: 05/10/21 18:05

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**43**		5.0	2.0	ug/L			05/14/21 00:54	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			05/14/21 00:54	5
1,3,5-Trimethylbenzene	**12**	**J**	25	1.5	ug/L			05/14/21 00:54	5
Toluene	**95**		5.0	1.0	ug/L			05/14/21 00:54	5
Xylenes, Total	**97**		30	7.0	ug/L			05/14/21 00:54	5
Methyl tert-butyl ether	ND		5.0	1.0	ug/L			05/14/21 00:54	5
1,2,4-Trimethylbenzene	**7.2**	**J**	25	5.0	ug/L			05/14/21 00:54	5
Isopropylbenzene	**71**		25	1.0	ug/L			05/14/21 00:54	5
t-Butyl alcohol	ND		250	60	ug/L			05/14/21 00:54	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*80 - 120*		*05/14/21 00:54*	*5*
4-Bromofluorobenzene (Surr)	*90*		*80 - 120*		*05/14/21 00:54*	*5*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*05/14/21 00:54*	*5*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/14/21 00:54*	*5*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1800**		50	10	ug/L			05/14/21 01:18	50

Client Sample ID: ARCO-3_20210507

Date Collected: 05/07/21 12:30
Date Received: 05/10/21 18:05

Lab Sample ID: 410-39177-8

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*		*05/14/21 01:18*	*50*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*05/14/21 01:18*	*50*
Dibromofluoromethane (Surr)	*105*		*80 - 120*		*05/14/21 01:18*	*50*
Toluene-d8 (Surr)	*103*		*80 - 120*		*05/14/21 01:18*	*50*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**0.12**	**J**	0.52	0.10	ug/L		05/14/21 09:30	05/17/21 16:20	1
Benzo[a]anthracene	ND		0.52	0.10	ug/L		05/14/21 09:30	05/17/21 16:20	1
Benzo[a]pyrene	ND		0.52	0.11	ug/L		05/14/21 09:30	05/17/21 16:20	1
Benzo[b]fluoranthene	ND		0.52	0.10	ug/L		05/14/21 09:30	05/17/21 16:20	1
Benzo[g,h,i]perylene	ND		0.52	0.10	ug/L		05/14/21 09:30	05/17/21 16:20	1
Chrysene	ND		0.52	0.10	ug/L		05/14/21 09:30	05/17/21 16:20	1
Fluorene	**1.5**		0.52	0.12	ug/L		05/14/21 09:30	05/17/21 16:20	1
Naphthalene	**14**		0.52	0.10	ug/L		05/14/21 09:30	05/17/21 16:20	1
Phenanthrene	**1.1**		0.52	0.11	ug/L		05/14/21 09:30	05/17/21 16:20	1
Pyrene	ND		0.52	0.10	ug/L		05/14/21 09:30	05/17/21 16:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*73*		*35 - 100*	*05/14/21 09:30*	*05/17/21 16:20*	*1*
Nitrobenzene-d5 (Surr)	*72*		*22 - 117*	*05/14/21 09:30*	*05/17/21 16:20*	*1*
p-Terphenyl-d14 (Surr)	*78*		*31 - 119*	*05/14/21 09:30*	*05/17/21 16:20*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**1.0**	**J**	5.0	1.0	ug/L		05/11/21 07:57	05/11/21 19:44	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/11/21 07:57	05/11/21 19:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*88*		*28 - 140*	*05/11/21 07:57*	*05/11/21 19:44*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**26000**		1000	600	ug/L		05/12/21 08:02	05/12/21 14:59	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*106*		*28 - 140*	*05/12/21 08:02*	*05/12/21 14:59*	*200*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.028	0.0093	ug/L		05/15/21 09:16	05/17/21 11:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*139*	*S1+*	*46 - 136*	*05/15/21 09:16*	*05/17/21 11:31*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*113*		*46 - 136*	*05/15/21 09:16*	*05/17/21 11:31*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			05/12/21 09:08	5

Client Sample ID: ARCO-3_20210507

Lab Sample ID: 410-39177-8

Date Collected: 05/07/21 12:30

Matrix: Water

Date Received: 05/10/21 18:05

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	32000		500	96	ug/L		05/11/21 13:44	05/12/21 16:57	1
Iron	20000		200	40	ug/L		05/11/21 13:44	05/12/21 16:57	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.22	J	0.52	0.073	ug/L		05/11/21 17:20	05/12/21 22:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	200000		8000	8000	ug/L			05/13/21 04:16	1
Total Kjeldahl Nitrogen	ND		1000	500	ug/L		05/13/21 07:15	05/19/21 13:59	1
Total Carbon	50000		10000	5000	ug/L			05/12/21 20:02	10
Total Organic Carbon	5000		2000	1000	ug/L			05/14/21 04:18	2
Total Inorganic Carbon	45000		2000	600	ug/L			05/20/21 10:27	1

Client Sample ID: B-172_20210507

Lab Sample ID: 410-39177-9

Date Collected: 05/07/21 14:00

Matrix: Water

Date Received: 05/10/21 18:05

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/13/21 18:10	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/13/21 18:10	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/13/21 18:10	1
Toluene	ND		1.0	0.20	ug/L			05/13/21 18:10	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/13/21 18:10	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/13/21 18:10	1
Benzene	7.5		1.0	0.20	ug/L			05/13/21 18:10	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/13/21 18:10	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/13/21 18:10	1
t-Butyl alcohol	ND		50	12	ug/L			05/13/21 18:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*		*05/13/21 18:10*	*1*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*05/13/21 18:10*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*05/13/21 18:10*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/13/21 18:10*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.56	0.11	ug/L		05/14/21 09:30	05/17/21 16:48	1
Benzo[a]anthracene	ND		0.56	0.11	ug/L		05/14/21 09:30	05/17/21 16:48	1
Benzo[a]pyrene	ND		0.56	0.12	ug/L		05/14/21 09:30	05/17/21 16:48	1
Benzo[b]fluoranthene	ND		0.56	0.11	ug/L		05/14/21 09:30	05/17/21 16:48	1
Benzo[g,h,i]perylene	ND		0.56	0.11	ug/L		05/14/21 09:30	05/17/21 16:48	1
Chrysene	ND		0.56	0.11	ug/L		05/14/21 09:30	05/17/21 16:48	1
Fluorene	ND		0.56	0.13	ug/L		05/14/21 09:30	05/17/21 16:48	1
Naphthalene	ND		0.56	0.11	ug/L		05/14/21 09:30	05/17/21 16:48	1
Phenanthrene	ND		0.56	0.12	ug/L		05/14/21 09:30	05/17/21 16:48	1
Pyrene	ND		0.56	0.11	ug/L		05/14/21 09:30	05/17/21 16:48	1

Client Sample ID: B-172_20210507

Lab Sample ID: 410-39177-9

Date Collected: 05/07/21 14:00
Matrix: Water
Date Received: 05/10/21 18:05

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*80*		*35 - 100*	*05/14/21 09:30*	*05/17/21 16:48*	*1*
Nitrobenzene-d5 (Surr)	*78*		*22 - 117*	*05/14/21 09:30*	*05/17/21 16:48*	*1*
p-Terphenyl-d14 (Surr)	*73*		*31 - 119*	*05/14/21 09:30*	*05/17/21 16:48*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/12/21 08:04	05/12/21 10:22	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/12/21 08:04	05/12/21 10:22	1
Methane (1C)	ND		5.0	3.0	ug/L		05/12/21 08:04	05/12/21 10:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*73*		*28 - 140*	*05/12/21 08:04*	*05/12/21 10:22*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.028	0.0094	ug/L		05/15/21 09:16	05/17/21 11:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*108*		*46 - 136*	*05/15/21 09:16*	*05/17/21 11:48*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*107*		*46 - 136*	*05/15/21 09:16*	*05/17/21 11:48*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**29000**	**FH**	5000	1500	ug/L			05/12/21 10:36	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**42000**		500	96	ug/L		05/11/21 13:44	05/12/21 17:06	1
Iron	**83**	**J**	200	40	ug/L		05/11/21 13:44	05/12/21 17:06	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.10**	**J**	0.52	0.073	ug/L		05/11/21 17:20	05/12/21 22:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**120000**		8000	8000	ug/L			05/13/21 05:01	1
Total Kjeldahl Nitrogen	ND		1000	500	ug/L		05/13/21 07:15	05/19/21 14:13	1
Total Carbon	**23000**		10000	5000	ug/L			05/12/21 20:12	10
Total Organic Carbon	**1700**		1000	500	ug/L			05/14/21 04:33	1
Total Inorganic Carbon	**21000**		2000	600	ug/L			05/20/21 10:27	1

Client Sample ID: S-39D_20210507

Lab Sample ID: 410-39177-10

Date Collected: 05/07/21 14:15
Matrix: Water
Date Received: 05/10/21 18:05

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/13/21 18:33	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/13/21 18:33	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/13/21 18:33	1
Toluene	ND		1.0	0.20	ug/L			05/13/21 18:33	1

Client Sample ID: S-39D_20210507
Date Collected: 05/07/21 14:15
Date Received: 05/10/21 18:05

Lab Sample ID: 410-39177-10
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		6.0	1.4	ug/L			05/13/21 18:33	1
Methyl tert-butyl ether	**24**		1.0	0.20	ug/L			05/13/21 18:33	1
Benzene	**0.69**	**J**	1.0	0.20	ug/L			05/13/21 18:33	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/13/21 18:33	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/13/21 18:33	1
t-Butyl alcohol	ND		50	12	ug/L			05/13/21 18:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*		*05/13/21 18:33*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*05/13/21 18:33*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*05/13/21 18:33*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/13/21 18:33*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.55	0.11	ug/L		05/14/21 09:30	05/17/21 17:16	1
Benzo[a]anthracene	ND		0.55	0.11	ug/L		05/14/21 09:30	05/17/21 17:16	1
Benzo[a]pyrene	ND		0.55	0.12	ug/L		05/14/21 09:30	05/17/21 17:16	1
Benzo[b]fluoranthene	ND		0.55	0.11	ug/L		05/14/21 09:30	05/17/21 17:16	1
Benzo[g,h,i]perylene	ND		0.55	0.11	ug/L		05/14/21 09:30	05/17/21 17:16	1
Chrysene	ND		0.55	0.11	ug/L		05/14/21 09:30	05/17/21 17:16	1
Fluorene	ND		0.55	0.13	ug/L		05/14/21 09:30	05/17/21 17:16	1
Naphthalene	ND		0.55	0.11	ug/L		05/14/21 09:30	05/17/21 17:16	1
Phenanthrene	ND		0.55	0.12	ug/L		05/14/21 09:30	05/17/21 17:16	1
Pyrene	ND		0.55	0.11	ug/L		05/14/21 09:30	05/17/21 17:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*78*		*35 - 100*	*05/14/21 09:30*	*05/17/21 17:16*	*1*
Nitrobenzene-d5 (Surr)	*75*		*22 - 117*	*05/14/21 09:30*	*05/17/21 17:16*	*1*
p-Terphenyl-d14 (Surr)	*78*		*31 - 119*	*05/14/21 09:30*	*05/17/21 17:16*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/12/21 08:04	05/12/21 10:37	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/12/21 08:04	05/12/21 10:37	1
Methane (1C)	**38**		5.0	3.0	ug/L		05/12/21 08:04	05/12/21 10:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*69*		*28 - 140*	*05/12/21 08:04*	*05/12/21 10:37*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0096	ug/L		05/15/21 09:16	05/17/21 12:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*111*		*46 - 136*	*05/15/21 09:16*	*05/17/21 12:05*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*110*		*46 - 136*	*05/15/21 09:16*	*05/17/21 12:05*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**290000**		20000	6000	ug/L			05/12/21 09:19	20

Client Sample ID: S-39D_20210507

Lab Sample ID: 410-39177-10

Date Collected: 05/07/21 14:15

Matrix: Water

Date Received: 05/10/21 18:05

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	94000		500	96	ug/L		05/11/21 13:42	05/12/21 16:12	1
Iron	860		200	40	ug/L		05/11/21 13:42	05/12/21 16:12	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/11/21 17:20	05/12/21 22:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	310000		8000	8000	ug/L			05/13/21 03:30	1
Total Kjeldahl Nitrogen	12000		5000	2500	ug/L		05/13/21 07:15	05/19/21 15:01	5
Total Carbon	87000		10000	5000	ug/L			05/12/21 20:23	10
Total Organic Carbon	12000		1000	500	ug/L			05/14/21 05:15	1
Total Inorganic Carbon	75000		2000	600	ug/L			05/20/21 10:27	1

Client Sample ID: FB_20210510

Lab Sample ID: 410-39177-11

Date Collected: 05/10/21 09:00

Matrix: Water

Date Received: 05/10/21 18:05

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/13/21 16:34	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/13/21 16:34	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/13/21 16:34	1
Toluene	ND		1.0	0.20	ug/L			05/13/21 16:34	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/13/21 16:34	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/13/21 16:34	1
Benzene	ND		1.0	0.20	ug/L			05/13/21 16:34	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/13/21 16:34	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/13/21 16:34	1
t-Butyl alcohol	ND		50	12	ug/L			05/13/21 16:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*80 - 120*		*05/13/21 16:34*	*1*
4-Bromofluorobenzene (Surr)	*89*		*80 - 120*		*05/13/21 16:34*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 120*		*05/13/21 16:34*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/13/21 16:34*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.53	0.11	ug/L		05/16/21 02:03	05/16/21 19:50	1
Benzo[a]anthracene	ND		0.53	0.11	ug/L		05/16/21 02:03	05/16/21 19:50	1
Benzo[a]pyrene	ND		0.53	0.12	ug/L		05/16/21 02:03	05/16/21 19:50	1
Benzo[b]fluoranthene	ND		0.53	0.11	ug/L		05/16/21 02:03	05/16/21 19:50	1
Benzo[g,h,i]perylene	ND		0.53	0.11	ug/L		05/16/21 02:03	05/16/21 19:50	1
Chrysene	ND		0.53	0.11	ug/L		05/16/21 02:03	05/16/21 19:50	1
Fluorene	ND		0.53	0.13	ug/L		05/16/21 02:03	05/16/21 19:50	1
Naphthalene	ND		0.53	0.11	ug/L		05/16/21 02:03	05/16/21 19:50	1
Phenanthrene	ND		0.53	0.12	ug/L		05/16/21 02:03	05/16/21 19:50	1
Pyrene	ND		0.53	0.11	ug/L		05/16/21 02:03	05/16/21 19:50	1

Client Sample ID: FB_20210510

Lab Sample ID: 410-39177-11

Date Collected: 05/10/21 09:00

Matrix: Water

Date Received: 05/10/21 18:05

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*53*		*35 - 100*	*05/16/21 02:03*	*05/16/21 19:50*	*1*
Nitrobenzene-d5 (Surr)	*48*		*22 - 117*	*05/16/21 02:03*	*05/16/21 19:50*	*1*
p-Terphenyl-d14 (Surr)	*84*		*31 - 119*	*05/16/21 02:03*	*05/16/21 19:50*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/12/21 08:04	05/12/21 10:53	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/12/21 08:04	05/12/21 10:53	1
Methane (1C)	ND		5.0	3.0	ug/L		05/12/21 08:04	05/12/21 10:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*88*		*28 - 140*	*05/12/21 08:04*	*05/12/21 10:53*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.028	0.0095	ug/L		05/15/21 09:16	05/17/21 12:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*110*		*46 - 136*	*05/15/21 09:16*	*05/17/21 12:22*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*109*		*46 - 136*	*05/15/21 09:16*	*05/17/21 12:22*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1000	300	ug/L			05/12/21 10:03	1

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**230**	**J**	500	96	ug/L		05/11/21 13:42	05/12/21 15:41	1
Iron	ND		200	40	ug/L		05/11/21 13:42	05/12/21 15:41	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/11/21 17:20	05/12/21 22:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8000	8000	ug/L			05/13/21 05:07	1
Total Kjeldahl Nitrogen	ND		1000	500	ug/L		05/13/21 07:15	05/19/21 14:15	1
Total Carbon	ND		1000	500	ug/L			05/12/21 20:55	1
Total Organic Carbon	ND		1000	500	ug/L			05/14/21 05:30	1
Total Inorganic Carbon	ND		2000	600	ug/L			05/20/21 10:27	1

Client Sample ID: TB_20210510

Lab Sample ID: 410-39177-12

Date Collected: 05/03/21 00:00

Matrix: Water

Date Received: 05/10/21 18:05

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		1.0	0.20	ug/L			05/13/21 16:58	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/13/21 16:58	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/13/21 16:58	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/13/21 16:58	1

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39177-1

Client Sample ID: TB_20210510
Date Collected: 05/03/21 00:00
Date Received: 05/10/21 18:05

Lab Sample ID: 410-39177-12
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		1.0	0.20	ug/L			05/13/21 16:58	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/13/21 16:58	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/13/21 16:58	1
Benzene	ND		1.0	0.20	ug/L			05/13/21 16:58	1
Naphthalene	ND		5.0	1.0	ug/L			05/13/21 16:58	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/13/21 16:58	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/13/21 16:58	1
t-Butyl alcohol	ND		50	12	ug/L			05/13/21 16:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*		*05/13/21 16:58*	*1*
4-Bromofluorobenzene (Surr)	*89*		*80 - 120*		*05/13/21 16:58*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 120*		*05/13/21 16:58*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/13/21 16:58*	*1*

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39177-1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-39177-1	S-271_20210507	93	104	93	110
410-39177-1	S-271_20210507	111	97	104	108
410-39177-2	ARCO-1D_20210507	95	112	96	103
410-39177-3	DUP-7_20210507	90	89	104	102
410-39177-4	ARCO-2_20210507	89	92	103	102
410-39177-5	S-230_20210507	87	89	101	103
410-39177-5 - DL	S-230_20210507	90	90	105	103
410-39177-6	ARCO-1_20210507	88	93	100	101
410-39177-7	S-418_20210507	88	88	101	102
410-39177-7 - DL	S-418_20210507	91	90	105	103
410-39177-8	ARCO-3_20210507	87	90	102	101
410-39177-8 - DL	ARCO-3_20210507	90	91	105	103
410-39177-9	B-172_20210507	92	92	103	102
410-39177-10	S-39D_20210507	92	93	102	102
410-39177-11	FB_20210510	91	89	106	101
410-39177-12	TB_20210510	92	89	107	102
LCS 410-125930/4	Lab Control Sample	99	109	95	107
LCS 410-126093/4	Lab Control Sample	92	92	105	103
LCS 410-127638/4	Lab Control Sample	119	102	108	108
LCSD 410-125930/5	Lab Control Sample Dup	100	111	96	105
LCSD 410-126093/5	Lab Control Sample Dup	92	92	105	102
LCSD 410-127638/5	Lab Control Sample Dup	118	105	107	109
MB 410-125930/6	Method Blank	98	102	99	102
MB 410-126093/6	Method Blank	92	89	107	101
MB 410-127638/6	Method Blank	114	98	106	108

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(35-100)	(22-117)	(31-119)
410-39177-1	S-271_20210507	56	59	77
410-39177-2	ARCO-1D_20210507	64	68	76
410-39177-3	DUP-7_20210507	71	73	81
410-39177-4	ARCO-2_20210507	71	72	86
410-39177-5	S-230_20210507	67	70	74
410-39177-6	ARCO-1_20210507	32 S1-	34	27 S1-
410-39177-7	S-418_20210507	65	69	74
410-39177-8	ARCO-3_20210507	73	72	78
410-39177-9	B-172_20210507	80	78	73
410-39177-10	S-39D_20210507	78	75	78
410-39177-11	FB_20210510	53	48	84
LCS 410-126150/2-A	Lab Control Sample	65	69	89

Surrogate Summary

Client: Stantec Consulting Corp. Job ID: 410-39177-1
Project/Site: Former PES Annual GWS

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(35-100)	(22-117)	(31-119)
LCS 410-126340/2-A	Lab Control Sample	72	75	88
LCS 410-126773/2-A	Lab Control Sample	75	71	92
LCSD 410-126340/3-A	Lab Control Sample Dup	73	76	89
MB 410-126150/1-A	Method Blank	77	77	95
MB 410-126340/1-A	Method Blank	75	76	94
MB 410-126773/1-A	Method Blank	61	56	83

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		Propene1
Lab Sample ID	Client Sample ID	(28-140)
410-39177-1	S-271_20210507	92
410-39177-1 - DL	S-271_20210507	109
410-39177-2	ARCO-1D_20210507	90
410-39177-3	DUP-7_20210507	86
410-39177-4	ARCO-2_20210507	74
410-39177-4 - DL	ARCO-2_20210507	106
410-39177-5	S-230_20210507	84
410-39177-5 - DL	S-230_20210507	104
410-39177-6	ARCO-1_20210507	83
410-39177-6 - DL	ARCO-1_20210507	110
410-39177-7	S-418_20210507	80
410-39177-7 - DL	S-418_20210507	106
410-39177-8	ARCO-3_20210507	88
410-39177-8 - DL	ARCO-3_20210507	106
410-39177-9	B-172_20210507	73
410-39177-10	S-39D_20210507	69
410-39177-11	FB_20210510	88
LCS 410-124784/2-A	Lab Control Sample	101
LCS 410-125331/2-A	Lab Control Sample	106
LCS 410-125332/2-A	Lab Control Sample	91
LCSD 410-124784/3-A	Lab Control Sample Dup	100
LCSD 410-125331/3-A	Lab Control Sample Dup	107
LCSD 410-125332/3-A	Lab Control Sample Dup	92
MB 410-124784/1-A	Method Blank	99
MB 410-125331/1-A	Method Blank	106
MB 410-125332/1-A	Method Blank	94

Surrogate Legend

Propene = Propene

Surrogate Summary

Client: Stantec Consulting Corp. Job ID: 410-39177-1
Project/Site: Former PES Annual GWS

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	1122TCA1 (46-136)	1122TCA2 (46-136)								
410-39177-1	S-271_20210507	124	118								
410-39177-2	ARCO-1D_20210507	112	107								
410-39177-3	DUP-7_20210507	115	112								
410-39177-4	ARCO-2_20210507	119	114								
410-39177-5	S-230_20210507	109	109								
410-39177-6	ARCO-1_20210507	114	109								
410-39177-7	S-418_20210507	125	107								
410-39177-8	ARCO-3_20210507	139 S1+	113								
410-39177-9	B-172_20210507	108	107								
410-39177-10	S-39D_20210507	111	110								
410-39177-11	FB_20210510	110	109								
LCS 410-126728/2-A	Lab Control Sample	99	101								
LCSD 410-126728/3-A	Lab Control Sample Dup	102	103								
MB 410-126728/1-A	Method Blank	104	102								

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-125930/6
Matrix: Water
Analysis Batch: 125930

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/13/21 11:14	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/13/21 11:14	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/13/21 11:14	1
Toluene	ND		1.0	0.20	ug/L			05/13/21 11:14	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/13/21 11:14	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/13/21 11:14	1
Benzene	ND		1.0	0.20	ug/L			05/13/21 11:14	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/13/21 11:14	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/13/21 11:14	1
t-Butyl alcohol	ND		50	12	ug/L			05/13/21 11:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 120*		*05/13/21 11:14*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*05/13/21 11:14*	*1*
Dibromofluoromethane (Surr)	*99*		*80 - 120*		*05/13/21 11:14*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/13/21 11:14*	*1*

Lab Sample ID: LCS 410-125930/4
Matrix: Water
Analysis Batch: 125930

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylbenzene			20.0	18.4		ug/L		92	80 - 120		
1,2-Dichloroethane			20.0	16.4		ug/L		82	73 - 124		
1,3,5-Trimethylbenzene			20.0	16.8		ug/L		84	75 - 120		
Toluene			20.0	18.9		ug/L		94	80 - 120		
Xylenes, Total			60.0	52.6		ug/L		88	80 - 120		
Methyl tert-butyl ether			20.0	17.4		ug/L		87	69 - 122		
Benzene			20.0	19.1		ug/L		96	80 - 120		
1,2,4-Trimethylbenzene			20.0	16.7		ug/L		83	75 - 120		
Isopropylbenzene			20.0	17.1		ug/L		86	80 - 120		
t-Butyl alcohol			200	174		ug/L		87	60 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*
4-Bromofluorobenzene (Surr)	*109*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*80 - 120*
Toluene-d8 (Surr)	*107*		*80 - 120*

Lab Sample ID: LCSD 410-125930/5
Matrix: Water
Analysis Batch: 125930

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene			20.0	17.9		ug/L		90	80 - 120	2	30
1,2-Dichloroethane			20.0	15.7		ug/L		78	73 - 124	4	30
1,3,5-Trimethylbenzene			20.0	15.3		ug/L		77	75 - 120	9	30
Toluene			20.0	18.4		ug/L		92	80 - 120	3	30

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-125930/5
Matrix: Water
Analysis Batch: 125930

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total			60.0	51.4		ug/L		86	80 - 120	2	30
Methyl tert-butyl ether			20.0	16.9		ug/L		84	69 - 122	3	30
Benzene			20.0	18.4		ug/L		92	80 - 120	4	30
1,2,4-Trimethylbenzene			20.0	15.8		ug/L		79	75 - 120	5	30
Isopropylbenzene			20.0	16.5		ug/L		82	80 - 120	4	30
t-Butyl alcohol			200	162		ug/L		81	60 - 130	7	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*
4-Bromofluorobenzene (Surr)	*111*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*80 - 120*
Toluene-d8 (Surr)	*105*		*80 - 120*

Lab Sample ID: MB 410-126093/6
Matrix: Water
Analysis Batch: 126093

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		1.0	0.20	ug/L			05/13/21 16:11	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/13/21 16:11	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/13/21 16:11	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/13/21 16:11	1
Toluene	ND		1.0	0.20	ug/L			05/13/21 16:11	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/13/21 16:11	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/13/21 16:11	1
Benzene	ND		1.0	0.20	ug/L			05/13/21 16:11	1
Naphthalene	ND		5.0	1.0	ug/L			05/13/21 16:11	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/13/21 16:11	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/13/21 16:11	1
t-Butyl alcohol	ND		50	12	ug/L			05/13/21 16:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*		*05/13/21 16:11*	*1*
4-Bromofluorobenzene (Surr)	*89*		*80 - 120*		*05/13/21 16:11*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 120*		*05/13/21 16:11*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/13/21 16:11*	*1*

Lab Sample ID: LCS 410-126093/4
Matrix: Water
Analysis Batch: 126093

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylene Dibromide			20.0	18.6		ug/L		93	77 - 120
Ethylbenzene			20.0	18.6		ug/L		93	80 - 120
1,2-Dichloroethane			20.0	17.1		ug/L		85	73 - 124
1,3,5-Trimethylbenzene			20.0	17.8		ug/L		89	75 - 120
Toluene			20.0	19.3		ug/L		97	80 - 120
Xylenes, Total			60.0	57.0		ug/L		95	80 - 120

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-126093/4
Matrix: Water
Analysis Batch: 126093

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	20.0	17.1		ug/L		85	69 - 122
Benzene	20.0	19.2		ug/L		96	80 - 120
Naphthalene	20.0	15.7		ug/L		78	53 - 124
1,2,4-Trimethylbenzene	20.0	17.5		ug/L		88	75 - 120
Isopropylbenzene	20.0	19.2		ug/L		96	80 - 120
t-Butyl alcohol	200	184		ug/L		92	60 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*
Dibromofluoromethane (Surr)	*105*		*80 - 120*
Toluene-d8 (Surr)	*103*		*80 - 120*

Lab Sample ID: LCSD 410-126093/5
Matrix: Water
Analysis Batch: 126093

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide	20.0	18.7		ug/L		94	77 - 120	1	30
Ethylbenzene	20.0	19.0		ug/L		95	80 - 120	2	30
1,2-Dichloroethane	20.0	17.4		ug/L		87	73 - 124	2	30
1,3,5-Trimethylbenzene	20.0	17.8		ug/L		89	75 - 120	0	30
Toluene	20.0	19.6		ug/L		98	80 - 120	1	30
Xylenes, Total	60.0	58.2		ug/L		97	80 - 120	2	30
Methyl tert-butyl ether	20.0	16.9		ug/L		85	69 - 122	1	30
Benzene	20.0	19.6		ug/L		98	80 - 120	2	30
Naphthalene	20.0	14.6		ug/L		73	53 - 124	7	30
1,2,4-Trimethylbenzene	20.0	17.6		ug/L		88	75 - 120	1	30
Isopropylbenzene	20.0	19.2		ug/L		96	80 - 120	1	30
t-Butyl alcohol	200	197		ug/L		98	60 - 130	7	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*
Dibromofluoromethane (Surr)	*105*		*80 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

Lab Sample ID: MB 410-127638/6
Matrix: Water
Analysis Batch: 127638

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/18/21 13:57	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/18/21 13:57	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/18/21 13:57	1
Toluene	ND		1.0	0.20	ug/L			05/18/21 13:57	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/18/21 13:57	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/18/21 13:57	1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-127638/6
Matrix: Water
Analysis Batch: 127638

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.20	ug/L			05/18/21 13:57	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/18/21 13:57	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/18/21 13:57	1
t-Butyl alcohol	ND		50	12	ug/L			05/18/21 13:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*80 - 120*		*05/18/21 13:57*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*05/18/21 13:57*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 120*		*05/18/21 13:57*	*1*
Toluene-d8 (Surr)	*108*		*80 - 120*		*05/18/21 13:57*	*1*

Lab Sample ID: LCS 410-127638/4
Matrix: Water
Analysis Batch: 127638

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylbenzene			20.0	19.7		ug/L		98	80 - 120		
1,2-Dichloroethane			20.0	21.9		ug/L		110	73 - 124		
1,3,5-Trimethylbenzene			20.0	19.2		ug/L		96	75 - 120		
Toluene			20.0	19.6		ug/L		98	80 - 120		
Xylenes, Total			60.0	57.1		ug/L		95	80 - 120		
Methyl tert-butyl ether			20.0	18.5		ug/L		93	69 - 122		
Benzene			20.0	19.7		ug/L		98	80 - 120		
1,2,4-Trimethylbenzene			20.0	19.3		ug/L		96	75 - 120		
Isopropylbenzene			20.0	19.5		ug/L		98	80 - 120		
t-Butyl alcohol			200	194		ug/L		97	60 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*119*		*80 - 120*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*
Dibromofluoromethane (Surr)	*108*		*80 - 120*
Toluene-d8 (Surr)	*108*		*80 - 120*

Lab Sample ID: LCSD 410-127638/5
Matrix: Water
Analysis Batch: 127638

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene			20.0	20.0		ug/L		100	80 - 120	2	30
1,2-Dichloroethane			20.0	21.4		ug/L		107	73 - 124	2	30
1,3,5-Trimethylbenzene			20.0	18.9		ug/L		95	75 - 120	2	30
Toluene			20.0	19.7		ug/L		99	80 - 120	1	30
Xylenes, Total			60.0	58.4		ug/L		97	80 - 120	2	30
Methyl tert-butyl ether			20.0	17.9		ug/L		90	69 - 122	3	30
Benzene			20.0	19.5		ug/L		98	80 - 120	1	30
1,2,4-Trimethylbenzene			20.0	19.0		ug/L		95	75 - 120	1	30
Isopropylbenzene			20.0	19.8		ug/L		99	80 - 120	2	30
t-Butyl alcohol			200	190		ug/L		95	60 - 130	2	30

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-127638/5
Matrix: Water
Analysis Batch: 127638

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	118		80 - 120
4-Bromofluorobenzene (Surr)	105		80 - 120
Dibromofluoromethane (Surr)	107		80 - 120
Toluene-d8 (Surr)	109		80 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-126150/1-A
Matrix: Water
Analysis Batch: 126659

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 126150

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/13/21 17:42	05/14/21 22:18	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/13/21 17:42	05/14/21 22:18	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/13/21 17:42	05/14/21 22:18	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/13/21 17:42	05/14/21 22:18	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/13/21 17:42	05/14/21 22:18	1
Chrysene	ND		0.50	0.10	ug/L		05/13/21 17:42	05/14/21 22:18	1
Fluorene	ND		0.50	0.12	ug/L		05/13/21 17:42	05/14/21 22:18	1
Naphthalene	ND		0.50	0.10	ug/L		05/13/21 17:42	05/14/21 22:18	1
Phenanthrene	ND		0.50	0.11	ug/L		05/13/21 17:42	05/14/21 22:18	1
Pyrene	ND		0.50	0.10	ug/L		05/13/21 17:42	05/14/21 22:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	77		35 - 100	05/13/21 17:42	05/14/21 22:18	1
Nitrobenzene-d5 (Surr)	77		22 - 117	05/13/21 17:42	05/14/21 22:18	1
p-Terphenyl-d14 (Surr)	95		31 - 119	05/13/21 17:42	05/14/21 22:18	1

Lab Sample ID: LCS 410-126150/2-A
Matrix: Water
Analysis Batch: 126659

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 126150

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.0	44.0		ug/L		88	73 - 120
Benzo[a]anthracene	50.0	41.7		ug/L		83	74 - 120
Benzo[a]pyrene	50.0	54.0		ug/L		108	60 - 116
Benzo[b]fluoranthene	50.0	47.0		ug/L		94	71 - 120
Benzo[g,h,i]perylene	50.0	51.4		ug/L		103	60 - 120
Chrysene	50.0	43.2		ug/L		86	76 - 120
Fluorene	50.0	40.2		ug/L		80	64 - 120
Naphthalene	50.0	35.6		ug/L		71	51 - 102
Phenanthrene	50.0	42.9		ug/L		86	72 - 120
Pyrene	50.0	44.6		ug/L		89	73 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	65		35 - 100
Nitrobenzene-d5 (Surr)	69		22 - 117
p-Terphenyl-d14 (Surr)	89		31 - 119

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-126340/1-A
Matrix: Water
Analysis Batch: 126963

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 126340

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/14/21 09:30	05/17/21 12:37	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/14/21 09:30	05/17/21 12:37	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/14/21 09:30	05/17/21 12:37	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/14/21 09:30	05/17/21 12:37	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/14/21 09:30	05/17/21 12:37	1
Chrysene	ND		0.50	0.10	ug/L		05/14/21 09:30	05/17/21 12:37	1
Fluorene	ND		0.50	0.12	ug/L		05/14/21 09:30	05/17/21 12:37	1
Naphthalene	ND		0.50	0.10	ug/L		05/14/21 09:30	05/17/21 12:37	1
Phenanthrene	ND		0.50	0.11	ug/L		05/14/21 09:30	05/17/21 12:37	1
Pyrene	ND		0.50	0.10	ug/L		05/14/21 09:30	05/17/21 12:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*75*		*35 - 100*	*05/14/21 09:30*	*05/17/21 12:37*	*1*
Nitrobenzene-d5 (Surr)	*76*		*22 - 117*	*05/14/21 09:30*	*05/17/21 12:37*	*1*
p-Terphenyl-d14 (Surr)	*94*		*31 - 119*	*05/14/21 09:30*	*05/17/21 12:37*	*1*

Lab Sample ID: LCS 410-126340/2-A
Matrix: Water
Analysis Batch: 126963

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 126340

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.0	44.3		ug/L		89	73 - 120
Benzo[a]anthracene	50.0	40.9		ug/L		82	74 - 120
Benzo[a]pyrene	50.0	51.3		ug/L		103	60 - 116
Benzo[b]fluoranthene	50.0	44.6		ug/L		89	71 - 120
Benzo[g,h,i]perylene	50.0	38.5		ug/L		77	60 - 120
Chrysene	50.0	42.3		ug/L		85	76 - 120
Fluorene	50.0	41.9		ug/L		84	64 - 120
Naphthalene	50.0	39.2		ug/L		78	51 - 102
Phenanthrene	50.0	43.2		ug/L		86	72 - 120
Pyrene	50.0	45.3		ug/L		91	73 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*72*		*35 - 100*
Nitrobenzene-d5 (Surr)	*75*		*22 - 117*
p-Terphenyl-d14 (Surr)	*88*		*31 - 119*

Lab Sample ID: LCSD 410-126340/3-A
Matrix: Water
Analysis Batch: 126963

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 126340

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Anthracene	50.0	46.2		ug/L		92	73 - 120	4	30
Benzo[a]anthracene	50.0	43.0		ug/L		86	74 - 120	5	30
Benzo[a]pyrene	50.0	53.8		ug/L		108	60 - 116	5	30
Benzo[b]fluoranthene	50.0	46.1		ug/L		92	71 - 120	3	30
Benzo[g,h,i]perylene	50.0	43.1		ug/L		86	60 - 120	11	30
Chrysene	50.0	44.0		ug/L		88	76 - 120	4	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-126340/3-A
Matrix: Water
Analysis Batch: 126963

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 126340

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluorene			50.0	43.7		ug/L		87	64 - 120	4	30
Naphthalene			50.0	40.5		ug/L		81	51 - 102	3	30
Phenanthrene			50.0	45.2		ug/L		90	72 - 120	5	30
Pyrene			50.0	47.4		ug/L		95	73 - 120	5	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*73*		*35 - 100*
Nitrobenzene-d5 (Surr)	*76*		*22 - 117*
p-Terphenyl-d14 (Surr)	*89*		*31 - 119*

Lab Sample ID: MB 410-126773/1-A
Matrix: Water
Analysis Batch: 126806

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 126773

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/16/21 02:03	05/16/21 14:04	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/16/21 02:03	05/16/21 14:04	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/16/21 02:03	05/16/21 14:04	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/16/21 02:03	05/16/21 14:04	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/16/21 02:03	05/16/21 14:04	1
Chrysene	ND		0.50	0.10	ug/L		05/16/21 02:03	05/16/21 14:04	1
Fluorene	ND		0.50	0.12	ug/L		05/16/21 02:03	05/16/21 14:04	1
Naphthalene	ND		0.50	0.10	ug/L		05/16/21 02:03	05/16/21 14:04	1
Phenanthrene	ND		0.50	0.11	ug/L		05/16/21 02:03	05/16/21 14:04	1
Pyrene	ND		0.50	0.10	ug/L		05/16/21 02:03	05/16/21 14:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*61*		*35 - 100*	*05/16/21 02:03*	*05/16/21 14:04*	*1*
Nitrobenzene-d5 (Surr)	*56*		*22 - 117*	*05/16/21 02:03*	*05/16/21 14:04*	*1*
p-Terphenyl-d14 (Surr)	*83*		*31 - 119*	*05/16/21 02:03*	*05/16/21 14:04*	*1*

Lab Sample ID: LCS 410-126773/2-A
Matrix: Water
Analysis Batch: 126806

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 126773

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene			50.0	43.4		ug/L		87	73 - 120
Benzo[a]anthracene			50.0	48.5		ug/L		97	74 - 120
Benzo[a]pyrene			50.0	52.4		ug/L		105	60 - 116
Benzo[b]fluoranthene			50.0	42.9		ug/L		86	71 - 120
Benzo[g,h,i]perylene			50.0	50.0		ug/L		100	60 - 120
Chrysene			50.0	49.3		ug/L		99	76 - 120
Fluorene			50.0	45.5		ug/L		91	64 - 120
Naphthalene			50.0	36.7		ug/L		73	51 - 102
Phenanthrene			50.0	43.8		ug/L		88	72 - 120
Pyrene			50.0	45.0		ug/L		90	73 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-126773/2-A
Matrix: Water
Analysis Batch: 126806

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 126773

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*75*		*35 - 100*
Nitrobenzene-d5 (Surr)	*71*		*22 - 117*
p-Terphenyl-d14 (Surr)	*92*		*31 - 119*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-124784/1-A
Matrix: Water
Analysis Batch: 124820

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 124784

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/11/21 07:57	05/11/21 14:40	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/11/21 07:57	05/11/21 14:40	1
Methane (1C)	ND		5.0	3.0	ug/L		05/11/21 07:57	05/11/21 14:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*99*		*28 - 140*	*05/11/21 07:57*	*05/11/21 14:40*	*1*

Lab Sample ID: LCS 410-124784/2-A
Matrix: Water
Analysis Batch: 124820

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 124784

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	61.1		ug/L		103	85 - 115		
Ethene (1C)			60.4	61.9		ug/L		103	83 - 115		
Methane (1C)			59.4	58.5		ug/L		98	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*101*		*28 - 140*

Lab Sample ID: LCSD 410-124784/3-A
Matrix: Water
Analysis Batch: 124820

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 124784

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	60.1		ug/L		101	85 - 115	2	20
Ethene (1C)			60.4	60.9		ug/L		101	83 - 115	2	20
Methane (1C)			59.4	57.4		ug/L		97	85 - 115	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*100*		*28 - 140*

Lab Sample ID: MB 410-125331/1-A
Matrix: Water
Analysis Batch: 125340

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 125331

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/12/21 08:02	05/12/21 09:15	1

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: MB 410-125331/1-A
Matrix: Water
Analysis Batch: 125340

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 125331

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethene (1C)	ND		5.0	1.0	ug/L		05/12/21 08:02	05/12/21 09:15	1
Methane (1C)	ND		5.0	3.0	ug/L		05/12/21 08:02	05/12/21 09:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*106*		*28 - 140*	*05/12/21 08:02*	*05/12/21 09:15*	*1*

Lab Sample ID: LCS 410-125331/2-A
Matrix: Water
Analysis Batch: 125340

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 125331

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	61.1		ug/L		103	85 - 115		
Ethene (1C)			60.4	60.9		ug/L		101	83 - 115		
Methane (1C)			59.4	62.9		ug/L		106	85 - 115		

Surrogate			*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)			*106*		*28 - 140*

Lab Sample ID: LCSD 410-125331/3-A
Matrix: Water
Analysis Batch: 125340

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 125331

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	62.4		ug/L		105	85 - 115	2	20
Ethene (1C)			60.4	62.4		ug/L		103	83 - 115	2	20
Methane (1C)			59.4	64.2		ug/L		108	85 - 115	2	20

Surrogate			*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)			*107*		*28 - 140*

Lab Sample ID: MB 410-125332/1-A
Matrix: Water
Analysis Batch: 125348

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 125332

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/12/21 08:04	05/12/21 09:15	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/12/21 08:04	05/12/21 09:15	1
Methane (1C)	ND		5.0	3.0	ug/L		05/12/21 08:04	05/12/21 09:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*94*		*28 - 140*	*05/12/21 08:04*	*05/12/21 09:15*	*1*

Lab Sample ID: LCS 410-125332/2-A
Matrix: Water
Analysis Batch: 125348

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 125332

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	56.0		ug/L		94	85 - 115		

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCS 410-125332/2-A
Matrix: Water
Analysis Batch: 125348

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 125332

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethene (1C)			60.4	56.0		ug/L		93	83 - 115		
Methane (1C)			59.4	52.5		ug/L		88	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*91*		*28 - 140*

Lab Sample ID: LCSD 410-125332/3-A
Matrix: Water
Analysis Batch: 125348

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 125332

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	57.2		ug/L		96	85 - 115	2	20
Ethene (1C)			60.4	57.3		ug/L		95	83 - 115	2	20
Methane (1C)			59.4	53.9		ug/L		91	85 - 115	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*92*		*28 - 140*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-126728/1-A
Matrix: Water
Analysis Batch: 126906

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 126728

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		05/15/21 09:16	05/17/21 07:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*104*		*46 - 136*	*05/15/21 09:16*	*05/17/21 07:17*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*102*		*46 - 136*	*05/15/21 09:16*	*05/17/21 07:17*	*1*

Lab Sample ID: LCS 410-126728/2-A
Matrix: Water
Analysis Batch: 126906

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 126728

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.154		ug/L		120	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*99*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*101*		*46 - 136*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: LCSD 410-126728/3-A
Matrix: Water
Analysis Batch: 126906

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 126728

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.158		ug/L		124	60 - 140	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*102*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*103*		*46 - 136*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 410-125315/4
Matrix: Water
Analysis Batch: 125315

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1000	300	ug/L			05/12/21 05:48	1

Lab Sample ID: LCS 410-125315/3
Matrix: Water
Analysis Batch: 125315

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			7500	7730		ug/L		103	90 - 110		

Lab Sample ID: MB 410-125329/4
Matrix: Water
Analysis Batch: 125329

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1000	300	ug/L			05/12/21 05:36	1

Lab Sample ID: LCS 410-125329/3
Matrix: Water
Analysis Batch: 125329

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			7500	7670		ug/L		102	90 - 110		

Lab Sample ID: 410-39177-4 MS
Matrix: Water
Analysis Batch: 125329

Client Sample ID: ARCO-2_20210507
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	ND	FH	25000	28100	FH	ug/L		112	90 - 110		

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 410-39177-9 MS
Matrix: Water
Analysis Batch: 125329

Client Sample ID: B-172_20210507
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	29000	FH	25000	59500	FH	ug/L		124	90 - 110		

Lab Sample ID: 410-39177-4 DU
Matrix: Water
Analysis Batch: 125329

Client Sample ID: ARCO-2_20210507
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfate	ND	FH		ND		ug/L				NC	15

Lab Sample ID: 410-39177-9 DU
Matrix: Water
Analysis Batch: 125329

Client Sample ID: B-172_20210507
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfate	29000	FH		28400		ug/L				0.6	15

Lab Sample ID: MB 410-125646/4
Matrix: Water
Analysis Batch: 125646

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1000	300	ug/L			05/12/21 20:36	1

Lab Sample ID: LCS 410-125646/3
Matrix: Water
Analysis Batch: 125646

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			7500	7590		ug/L		101	90 - 110		

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-125006/1-A
Matrix: Water
Analysis Batch: 125665

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 125006

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		500	96	ug/L		05/11/21 13:42	05/12/21 15:29	1
Iron	ND		200	40	ug/L		05/11/21 13:42	05/12/21 15:29	1

Lab Sample ID: LCS 410-125006/2-A
Matrix: Water
Analysis Batch: 125665

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 125006

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Calcium			400	412	J	ug/L		103	80 - 120		
Iron			400	417		ug/L		104	80 - 120		

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 410-39177-11 MS
Matrix: Water
Analysis Batch: 125665

Client Sample ID: FB_20210510
Prep Type: Total Recoverable
Prep Batch: 125006

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	230	J	400	633		ug/L		102	75 - 125
Iron	ND		400	435		ug/L		109	75 - 125

Lab Sample ID: 410-39177-11 MSD
Matrix: Water
Analysis Batch: 125665

Client Sample ID: FB_20210510
Prep Type: Total Recoverable
Prep Batch: 125006

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	230	J	400	642		ug/L		104	75 - 125	1	20
Iron	ND		400	403		ug/L		101	75 - 125	8	20

Lab Sample ID: 410-39177-11 DU
Matrix: Water
Analysis Batch: 125665

Client Sample ID: FB_20210510
Prep Type: Total Recoverable
Prep Batch: 125006

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Calcium	230	J	218	J	ug/L		4	20
Iron	ND		ND		ug/L		NC	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 410-125106/1-A
Matrix: Water
Analysis Batch: 125899

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 125106

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/11/21 17:20	05/12/21 22:16	1

Lab Sample ID: LCS 410-125106/2-A
Matrix: Water
Analysis Batch: 125899

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 125106

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	30.0	32.0		ug/L		107	90 - 115

Lab Sample ID: 410-39177-6 MS
Matrix: Water
Analysis Batch: 125899

Client Sample ID: ARCO-1_20210507
Prep Type: Dissolved
Prep Batch: 125106

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.10	J	30.0	31.7		ug/L		105	75 - 125

Lab Sample ID: 410-39177-6 MSD
Matrix: Water
Analysis Batch: 125899

Client Sample ID: ARCO-1_20210507
Prep Type: Dissolved
Prep Batch: 125106

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	0.10	J	30.0	32.1		ug/L		107	75 - 125	1	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 410-39177-6 DU
Matrix: Water
Analysis Batch: 125899

Client Sample ID: ARCO-1_20210507
Prep Type: Dissolved
Prep Batch: 125106

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	0.10	J	0.105	J	ug/L		4	20

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 410-126089/112
Matrix: Water
Analysis Batch: 126089

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8000	8000	ug/L			05/13/21 03:06	1

Lab Sample ID: LCS 410-126089/115
Matrix: Water
Analysis Batch: 126089

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	189000	188000		ug/L		99	82 - 106

Lab Sample ID: 410-39177-10 MS
Matrix: Water
Analysis Batch: 126089

Client Sample ID: S-39D_20210507
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	310000		189000	475000		ug/L		90	82 - 106

Lab Sample ID: 410-39177-7 DU
Matrix: Water
Analysis Batch: 126089

Client Sample ID: S-418_20210507
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	180000		176000		ug/L		0.7	5

Lab Sample ID: 410-39177-10 DU
Matrix: Water
Analysis Batch: 126089

Client Sample ID: S-39D_20210507
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	310000		304000		ug/L		0.3	5

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 410-125834/2-A
Matrix: Water
Analysis Batch: 128342

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 125834

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		1000	500	ug/L		05/13/21 07:15	05/19/21 13:50	1

Method: 351.2 - Nitrogen, Total Kjeldahl (Continued)

Lab Sample ID: LCS 410-125834/1-A
Matrix: Water
Analysis Batch: 128342

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 125834

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Kjeldahl Nitrogen			4000	3880		ug/L		97	90 - 110		

Lab Sample ID: 410-39177-8 MS
Matrix: Water
Analysis Batch: 128342

Client Sample ID: ARCO-3_20210507
Prep Type: Total/NA
Prep Batch: 125834

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Kjeldahl Nitrogen	ND		5000	5290		ug/L		106	90 - 110		

Lab Sample ID: 410-39177-8 DU
Matrix: Water
Analysis Batch: 128342

Client Sample ID: ARCO-3_20210507
Prep Type: Total/NA
Prep Batch: 125834

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Kjeldahl Nitrogen	ND			ND		ug/L				NC	20

Method: 5310 B-2011 - Carbon, Total and Total Inorganic

Lab Sample ID: MB 410-125988/37
Matrix: Water
Analysis Batch: 125988

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Carbon	ND		1000	500	ug/L			05/12/21 17:41	1

Lab Sample ID: LCS 410-125988/36
Matrix: Water
Analysis Batch: 125988

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Carbon			25000	25000		ug/L		100	91 - 115		

Lab Sample ID: 410-39177-10 MS
Matrix: Water
Analysis Batch: 125988

Client Sample ID: S-39D_20210507
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Carbon	87000		100000	178000		ug/L		91	91 - 115		

Lab Sample ID: 410-39177-10 DU
Matrix: Water
Analysis Batch: 125988

Client Sample ID: S-39D_20210507
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Carbon	87000			84000		ug/L				3	20

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39177-1

Method: 5310C-2011 - Total Organic Carbon/Persulfate - Ultrav

Lab Sample ID: MB 410-126474/37
Matrix: Water
Analysis Batch: 126474

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	500	ug/L			05/14/21 02:40	1

Lab Sample ID: MB 410-126474/5
Matrix: Water
Analysis Batch: 126474

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	500	ug/L			05/13/21 18:58	1

Lab Sample ID: LCS 410-126474/36
Matrix: Water
Analysis Batch: 126474

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	25000	23900		ug/L		96	91 - 113

Lab Sample ID: LCS 410-126474/4
Matrix: Water
Analysis Batch: 126474

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	25000	24000		ug/L		96	91 - 113

Lab Sample ID: MB 410-126741/5
Matrix: Water
Analysis Batch: 126741

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	500	ug/L			05/14/21 18:02	1

Lab Sample ID: LCS 410-126741/4
Matrix: Water
Analysis Batch: 126741

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	25000	24000		ug/L		96	91 - 113

GC/MS VOA

Analysis Batch: 125930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-1	S-271_20210507	Total/NA	Water	8260C/UST	
410-39177-2	ARCO-1D_20210507	Total/NA	Water	8260C/UST	
MB 410-125930/6	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-125930/4	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-125930/5	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

Analysis Batch: 126093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-3	DUP-7_20210507	Total/NA	Water	8260C/UST	
410-39177-4	ARCO-2_20210507	Total/NA	Water	8260C/UST	
410-39177-5	S-230_20210507	Total/NA	Water	8260C/UST	
410-39177-5 - DL	S-230_20210507	Total/NA	Water	8260C/UST	
410-39177-6	ARCO-1_20210507	Total/NA	Water	8260C/UST	
410-39177-7	S-418_20210507	Total/NA	Water	8260C/UST	
410-39177-7 - DL	S-418_20210507	Total/NA	Water	8260C/UST	
410-39177-8	ARCO-3_20210507	Total/NA	Water	8260C/UST	
410-39177-8 - DL	ARCO-3_20210507	Total/NA	Water	8260C/UST	
410-39177-9	B-172_20210507	Total/NA	Water	8260C/UST	
410-39177-10	S-39D_20210507	Total/NA	Water	8260C/UST	
410-39177-11	FB_20210510	Total/NA	Water	8260C/UST	
410-39177-12	TB_20210510	Total/NA	Water	8260C/UST	
MB 410-126093/6	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-126093/4	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-126093/5	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

Analysis Batch: 127638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-1	S-271_20210507	Total/NA	Water	8260C/UST	
MB 410-127638/6	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-127638/4	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-127638/5	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

GC/MS Semi VOA

Prep Batch: 126150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-1	S-271_20210507	Total/NA	Water	3510C	
410-39177-2	ARCO-1D_20210507	Total/NA	Water	3510C	
410-39177-3	DUP-7_20210507	Total/NA	Water	3510C	
410-39177-4	ARCO-2_20210507	Total/NA	Water	3510C	
410-39177-5	S-230_20210507	Total/NA	Water	3510C	
410-39177-6	ARCO-1_20210507	Total/NA	Water	3510C	
410-39177-7	S-418_20210507	Total/NA	Water	3510C	
MB 410-126150/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-126150/2-A	Lab Control Sample	Total/NA	Water	3510C	

Prep Batch: 126340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-8	ARCO-3_20210507	Total/NA	Water	3510C	
410-39177-9	B-172_20210507	Total/NA	Water	3510C	
410-39177-10	S-39D_20210507	Total/NA	Water	3510C	

GC/MS Semi VOA (Continued)

Prep Batch: 126340 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-126340/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-126340/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-126340/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 126659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-1	S-271_20210507	Total/NA	Water	8270D	126150
410-39177-2	ARCO-1D_20210507	Total/NA	Water	8270D	126150
MB 410-126150/1-A	Method Blank	Total/NA	Water	8270D	126150
LCS 410-126150/2-A	Lab Control Sample	Total/NA	Water	8270D	126150

Prep Batch: 126773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-11	FB_20210510	Total/NA	Water	3510C	
MB 410-126773/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-126773/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 126792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-3	DUP-7_20210507	Total/NA	Water	8270D	126150
410-39177-4	ARCO-2_20210507	Total/NA	Water	8270D	126150
410-39177-5	S-230_20210507	Total/NA	Water	8270D	126150
410-39177-6	ARCO-1_20210507	Total/NA	Water	8270D	126150
410-39177-7	S-418_20210507	Total/NA	Water	8270D	126150

Analysis Batch: 126806

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-11	FB_20210510	Total/NA	Water	8270D	126773
MB 410-126773/1-A	Method Blank	Total/NA	Water	8270D	126773
LCS 410-126773/2-A	Lab Control Sample	Total/NA	Water	8270D	126773

Analysis Batch: 126963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-8	ARCO-3_20210507	Total/NA	Water	8270D	126340
410-39177-9	B-172_20210507	Total/NA	Water	8270D	126340
410-39177-10	S-39D_20210507	Total/NA	Water	8270D	126340
MB 410-126340/1-A	Method Blank	Total/NA	Water	8270D	126340
LCS 410-126340/2-A	Lab Control Sample	Total/NA	Water	8270D	126340
LCSD 410-126340/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	126340

GC VOA

Prep Batch: 124784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-1	S-271_20210507	Total/NA	Water	RSK-175	
410-39177-2	ARCO-1D_20210507	Total/NA	Water	RSK-175	
410-39177-3	DUP-7_20210507	Total/NA	Water	RSK-175	
410-39177-4	ARCO-2_20210507	Total/NA	Water	RSK-175	
410-39177-5	S-230_20210507	Total/NA	Water	RSK-175	
410-39177-6	ARCO-1_20210507	Total/NA	Water	RSK-175	
410-39177-7	S-418_20210507	Total/NA	Water	RSK-175	

GC VOA (Continued)

Prep Batch: 124784 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-8	ARCO-3_20210507	Total/NA	Water	RSK-175	
MB 410-124784/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-124784/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-124784/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 124820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-1	S-271_20210507	Total/NA	Water	RSK-175	124784
410-39177-2	ARCO-1D_20210507	Total/NA	Water	RSK-175	124784
410-39177-3	DUP-7_20210507	Total/NA	Water	RSK-175	124784
410-39177-4	ARCO-2_20210507	Total/NA	Water	RSK-175	124784
410-39177-5	S-230_20210507	Total/NA	Water	RSK-175	124784
410-39177-6	ARCO-1_20210507	Total/NA	Water	RSK-175	124784
410-39177-7	S-418_20210507	Total/NA	Water	RSK-175	124784
410-39177-8	ARCO-3_20210507	Total/NA	Water	RSK-175	124784
MB 410-124784/1-A	Method Blank	Total/NA	Water	RSK-175	124784
LCS 410-124784/2-A	Lab Control Sample	Total/NA	Water	RSK-175	124784
LCSD 410-124784/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	124784

Prep Batch: 125331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-1 - DL	S-271_20210507	Total/NA	Water	RSK-175	
410-39177-4 - DL	ARCO-2_20210507	Total/NA	Water	RSK-175	
410-39177-5 - DL	S-230_20210507	Total/NA	Water	RSK-175	
410-39177-6 - DL	ARCO-1_20210507	Total/NA	Water	RSK-175	
410-39177-7 - DL	S-418_20210507	Total/NA	Water	RSK-175	
410-39177-8 - DL	ARCO-3_20210507	Total/NA	Water	RSK-175	
MB 410-125331/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-125331/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-125331/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Prep Batch: 125332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-9	B-172_20210507	Total/NA	Water	RSK-175	
410-39177-10	S-39D_20210507	Total/NA	Water	RSK-175	
410-39177-11	FB_20210510	Total/NA	Water	RSK-175	
MB 410-125332/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-125332/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-125332/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 125340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-1 - DL	S-271_20210507	Total/NA	Water	RSK-175	125331
410-39177-4 - DL	ARCO-2_20210507	Total/NA	Water	RSK-175	125331
410-39177-5 - DL	S-230_20210507	Total/NA	Water	RSK-175	125331
410-39177-6 - DL	ARCO-1_20210507	Total/NA	Water	RSK-175	125331
410-39177-7 - DL	S-418_20210507	Total/NA	Water	RSK-175	125331
410-39177-8 - DL	ARCO-3_20210507	Total/NA	Water	RSK-175	125331
MB 410-125331/1-A	Method Blank	Total/NA	Water	RSK-175	125331
LCS 410-125331/2-A	Lab Control Sample	Total/NA	Water	RSK-175	125331
LCSD 410-125331/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	125331

GC VOA

Analysis Batch: 125348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-9	B-172_20210507	Total/NA	Water	RSK-175	125332
410-39177-10	S-39D_20210507	Total/NA	Water	RSK-175	125332
410-39177-11	FB_20210510	Total/NA	Water	RSK-175	125332
MB 410-125332/1-A	Method Blank	Total/NA	Water	RSK-175	125332
LCS 410-125332/2-A	Lab Control Sample	Total/NA	Water	RSK-175	125332
LCSD 410-125332/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	125332

GC Semi VOA

Prep Batch: 126728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-1	S-271_20210507	Total/NA	Water	8011	
410-39177-2	ARCO-1D_20210507	Total/NA	Water	8011	
410-39177-3	DUP-7_20210507	Total/NA	Water	8011	
410-39177-4	ARCO-2_20210507	Total/NA	Water	8011	
410-39177-5	S-230_20210507	Total/NA	Water	8011	
410-39177-6	ARCO-1_20210507	Total/NA	Water	8011	
410-39177-7	S-418_20210507	Total/NA	Water	8011	
410-39177-8	ARCO-3_20210507	Total/NA	Water	8011	
410-39177-9	B-172_20210507	Total/NA	Water	8011	
410-39177-10	S-39D_20210507	Total/NA	Water	8011	
410-39177-11	FB_20210510	Total/NA	Water	8011	
MB 410-126728/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-126728/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-126728/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 126906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-1	S-271_20210507	Total/NA	Water	8011	126728
410-39177-2	ARCO-1D_20210507	Total/NA	Water	8011	126728
410-39177-3	DUP-7_20210507	Total/NA	Water	8011	126728
410-39177-4	ARCO-2_20210507	Total/NA	Water	8011	126728
410-39177-5	S-230_20210507	Total/NA	Water	8011	126728
410-39177-6	ARCO-1_20210507	Total/NA	Water	8011	126728
410-39177-7	S-418_20210507	Total/NA	Water	8011	126728
410-39177-8	ARCO-3_20210507	Total/NA	Water	8011	126728
410-39177-9	B-172_20210507	Total/NA	Water	8011	126728
410-39177-10	S-39D_20210507	Total/NA	Water	8011	126728
410-39177-11	FB_20210510	Total/NA	Water	8011	126728
MB 410-126728/1-A	Method Blank	Total/NA	Water	8011	126728
LCS 410-126728/2-A	Lab Control Sample	Total/NA	Water	8011	126728
LCSD 410-126728/3-A	Lab Control Sample Dup	Total/NA	Water	8011	126728

HPLC/IC

Analysis Batch: 125315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-1	S-271_20210507	Total/NA	Water	EPA 300.0 R2.1	
410-39177-2	ARCO-1D_20210507	Total/NA	Water	EPA 300.0 R2.1	
410-39177-3	DUP-7_20210507	Total/NA	Water	EPA 300.0 R2.1	
MB 410-125315/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-125315/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

HPLC/IC

Analysis Batch: 125329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-4	ARCO-2_20210507	Total/NA	Water	EPA 300.0 R2.1	
410-39177-5	S-230_20210507	Total/NA	Water	EPA 300.0 R2.1	
410-39177-6	ARCO-1_20210507	Total/NA	Water	EPA 300.0 R2.1	
410-39177-7	S-418_20210507	Total/NA	Water	EPA 300.0 R2.1	
410-39177-8	ARCO-3_20210507	Total/NA	Water	EPA 300.0 R2.1	
410-39177-9	B-172_20210507	Total/NA	Water	EPA 300.0 R2.1	
410-39177-10	S-39D_20210507	Total/NA	Water	EPA 300.0 R2.1	
410-39177-11	FB_20210510	Total/NA	Water	EPA 300.0 R2.1	
MB 410-125329/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-125329/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
410-39177-4 MS	ARCO-2_20210507	Total/NA	Water	EPA 300.0 R2.1	
410-39177-9 MS	B-172_20210507	Total/NA	Water	EPA 300.0 R2.1	
410-39177-4 DU	ARCO-2_20210507	Total/NA	Water	EPA 300.0 R2.1	
410-39177-9 DU	B-172_20210507	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 125646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-125646/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-125646/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 125006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-1	S-271_20210507	Total Recoverable	Water	3005A	
410-39177-2	ARCO-1D_20210507	Total Recoverable	Water	3005A	
410-39177-3	DUP-7_20210507	Total Recoverable	Water	3005A	
410-39177-4	ARCO-2_20210507	Total Recoverable	Water	3005A	
410-39177-5	S-230_20210507	Total Recoverable	Water	3005A	
410-39177-6	ARCO-1_20210507	Total Recoverable	Water	3005A	
410-39177-7	S-418_20210507	Total Recoverable	Water	3005A	
410-39177-8	ARCO-3_20210507	Total Recoverable	Water	3005A	
410-39177-9	B-172_20210507	Total Recoverable	Water	3005A	
410-39177-10	S-39D_20210507	Total Recoverable	Water	3005A	
410-39177-11	FB_20210510	Total Recoverable	Water	3005A	
MB 410-125006/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-125006/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
410-39177-11 MS	FB_20210510	Total Recoverable	Water	3005A	
410-39177-11 MSD	FB_20210510	Total Recoverable	Water	3005A	
410-39177-11 DU	FB_20210510	Total Recoverable	Water	3005A	

Prep Batch: 125106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-1	S-271_20210507	Dissolved	Water	Non-Digest Prep	
410-39177-2	ARCO-1D_20210507	Dissolved	Water	Non-Digest Prep	
410-39177-3	DUP-7_20210507	Dissolved	Water	Non-Digest Prep	
410-39177-4	ARCO-2_20210507	Dissolved	Water	Non-Digest Prep	
410-39177-5	S-230_20210507	Dissolved	Water	Non-Digest Prep	
410-39177-6	ARCO-1_20210507	Dissolved	Water	Non-Digest Prep	
410-39177-7	S-418_20210507	Dissolved	Water	Non-Digest Prep	
410-39177-8	ARCO-3_20210507	Dissolved	Water	Non-Digest Prep	

Metals (Continued)

Prep Batch: 125106 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-9	B-172_20210507	Dissolved	Water	Non-Digest Prep	
410-39177-10	S-39D_20210507	Dissolved	Water	Non-Digest Prep	
410-39177-11	FB_20210510	Dissolved	Water	Non-Digest Prep	
MB 410-125106/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-125106/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	
410-39177-6 MS	ARCO-1_20210507	Dissolved	Water	Non-Digest Prep	
410-39177-6 MSD	ARCO-1_20210507	Dissolved	Water	Non-Digest Prep	
410-39177-6 DU	ARCO-1_20210507	Dissolved	Water	Non-Digest Prep	

Analysis Batch: 125665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-1	S-271_20210507	Total Recoverable	Water	6010C	125006
410-39177-2	ARCO-1D_20210507	Total Recoverable	Water	6010C	125006
410-39177-3	DUP-7_20210507	Total Recoverable	Water	6010C	125006
410-39177-4	ARCO-2_20210507	Total Recoverable	Water	6010C	125006
410-39177-5	S-230_20210507	Total Recoverable	Water	6010C	125006
410-39177-6	ARCO-1_20210507	Total Recoverable	Water	6010C	125006
410-39177-7	S-418_20210507	Total Recoverable	Water	6010C	125006
410-39177-8	ARCO-3_20210507	Total Recoverable	Water	6010C	125006
410-39177-9	B-172_20210507	Total Recoverable	Water	6010C	125006
410-39177-10	S-39D_20210507	Total Recoverable	Water	6010C	125006
410-39177-11	FB_20210510	Total Recoverable	Water	6010C	125006
MB 410-125006/1-A	Method Blank	Total Recoverable	Water	6010C	125006
LCS 410-125006/2-A	Lab Control Sample	Total Recoverable	Water	6010C	125006
410-39177-11 MS	FB_20210510	Total Recoverable	Water	6010C	125006
410-39177-11 MSD	FB_20210510	Total Recoverable	Water	6010C	125006
410-39177-11 DU	FB_20210510	Total Recoverable	Water	6010C	125006

Analysis Batch: 125899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-1	S-271_20210507	Dissolved	Water	6020A	125106
410-39177-2	ARCO-1D_20210507	Dissolved	Water	6020A	125106
410-39177-3	DUP-7_20210507	Dissolved	Water	6020A	125106
410-39177-4	ARCO-2_20210507	Dissolved	Water	6020A	125106
410-39177-5	S-230_20210507	Dissolved	Water	6020A	125106
410-39177-6	ARCO-1_20210507	Dissolved	Water	6020A	125106
410-39177-7	S-418_20210507	Dissolved	Water	6020A	125106
410-39177-8	ARCO-3_20210507	Dissolved	Water	6020A	125106
410-39177-9	B-172_20210507	Dissolved	Water	6020A	125106
410-39177-10	S-39D_20210507	Dissolved	Water	6020A	125106
410-39177-11	FB_20210510	Dissolved	Water	6020A	125106
MB 410-125106/1-A	Method Blank	Total/NA	Water	6020A	125106
LCS 410-125106/2-A	Lab Control Sample	Total/NA	Water	6020A	125106
410-39177-6 MS	ARCO-1_20210507	Dissolved	Water	6020A	125106
410-39177-6 MSD	ARCO-1_20210507	Dissolved	Water	6020A	125106
410-39177-6 DU	ARCO-1_20210507	Dissolved	Water	6020A	125106

General Chemistry

Prep Batch: 125834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-1	S-271_20210507	Total/NA	Water	351.2	
410-39177-2	ARCO-1D_20210507	Total/NA	Water	351.2	
410-39177-3	DUP-7_20210507	Total/NA	Water	351.2	
410-39177-4	ARCO-2_20210507	Total/NA	Water	351.2	
410-39177-5	S-230_20210507	Total/NA	Water	351.2	
410-39177-6	ARCO-1_20210507	Total/NA	Water	351.2	
410-39177-7	S-418_20210507	Total/NA	Water	351.2	
410-39177-8	ARCO-3_20210507	Total/NA	Water	351.2	
410-39177-9	B-172_20210507	Total/NA	Water	351.2	
410-39177-10	S-39D_20210507	Total/NA	Water	351.2	
410-39177-11	FB_20210510	Total/NA	Water	351.2	
MB 410-125834/2-A	Method Blank	Total/NA	Water	351.2	
LCS 410-125834/1-A	Lab Control Sample	Total/NA	Water	351.2	
410-39177-8 MS	ARCO-3_20210507	Total/NA	Water	351.2	
410-39177-8 DU	ARCO-3_20210507	Total/NA	Water	351.2	

Analysis Batch: 125988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-1	S-271_20210507	Total/NA	Water	5310 B-2011	
410-39177-2	ARCO-1D_20210507	Total/NA	Water	5310 B-2011	
410-39177-3	DUP-7_20210507	Total/NA	Water	5310 B-2011	
410-39177-4	ARCO-2_20210507	Total/NA	Water	5310 B-2011	
410-39177-5	S-230_20210507	Total/NA	Water	5310 B-2011	
410-39177-6	ARCO-1_20210507	Total/NA	Water	5310 B-2011	
410-39177-7	S-418_20210507	Total/NA	Water	5310 B-2011	
410-39177-8	ARCO-3_20210507	Total/NA	Water	5310 B-2011	
410-39177-9	B-172_20210507	Total/NA	Water	5310 B-2011	
410-39177-10	S-39D_20210507	Total/NA	Water	5310 B-2011	
410-39177-11	FB_20210510	Total/NA	Water	5310 B-2011	
MB 410-125988/37	Method Blank	Total/NA	Water	5310 B-2011	
LCS 410-125988/36	Lab Control Sample	Total/NA	Water	5310 B-2011	
410-39177-10 MS	S-39D_20210507	Total/NA	Water	5310 B-2011	
410-39177-10 DU	S-39D_20210507	Total/NA	Water	5310 B-2011	

Analysis Batch: 126089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-1	S-271_20210507	Total/NA	Water	2320B-2011	
410-39177-2	ARCO-1D_20210507	Total/NA	Water	2320B-2011	
410-39177-3	DUP-7_20210507	Total/NA	Water	2320B-2011	
410-39177-4	ARCO-2_20210507	Total/NA	Water	2320B-2011	
410-39177-5	S-230_20210507	Total/NA	Water	2320B-2011	
410-39177-6	ARCO-1_20210507	Total/NA	Water	2320B-2011	
410-39177-7	S-418_20210507	Total/NA	Water	2320B-2011	
410-39177-8	ARCO-3_20210507	Total/NA	Water	2320B-2011	
410-39177-9	B-172_20210507	Total/NA	Water	2320B-2011	
410-39177-10	S-39D_20210507	Total/NA	Water	2320B-2011	
410-39177-11	FB_20210510	Total/NA	Water	2320B-2011	
MB 410-126089/112	Method Blank	Total/NA	Water	2320B-2011	
LCS 410-126089/115	Lab Control Sample	Total/NA	Water	2320B-2011	
410-39177-10 MS	S-39D_20210507	Total/NA	Water	2320B-2011	
410-39177-7 DU	S-418_20210507	Total/NA	Water	2320B-2011	

General Chemistry (Continued)

Analysis Batch: 126089 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-10 DU	S-39D_20210507	Total/NA	Water	2320B-2011	

Analysis Batch: 126474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-2	ARCO-1D_20210507	Total/NA	Water	5310C-2011	
410-39177-3	DUP-7_20210507	Total/NA	Water	5310C-2011	
410-39177-4	ARCO-2_20210507	Total/NA	Water	5310C-2011	
410-39177-5	S-230_20210507	Total/NA	Water	5310C-2011	
410-39177-6	ARCO-1_20210507	Total/NA	Water	5310C-2011	
410-39177-7	S-418_20210507	Total/NA	Water	5310C-2011	
410-39177-8	ARCO-3_20210507	Total/NA	Water	5310C-2011	
410-39177-9	B-172_20210507	Total/NA	Water	5310C-2011	
410-39177-10	S-39D_20210507	Total/NA	Water	5310C-2011	
410-39177-11	FB_20210510	Total/NA	Water	5310C-2011	
MB 410-126474/37	Method Blank	Total/NA	Water	5310C-2011	
MB 410-126474/5	Method Blank	Total/NA	Water	5310C-2011	
LCS 410-126474/36	Lab Control Sample	Total/NA	Water	5310C-2011	
LCS 410-126474/4	Lab Control Sample	Total/NA	Water	5310C-2011	

Analysis Batch: 126741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-1	S-271_20210507	Total/NA	Water	5310C-2011	
MB 410-126741/5	Method Blank	Total/NA	Water	5310C-2011	
LCS 410-126741/4	Lab Control Sample	Total/NA	Water	5310C-2011	

Analysis Batch: 128342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-1	S-271_20210507	Total/NA	Water	351.2	125834
410-39177-2	ARCO-1D_20210507	Total/NA	Water	351.2	125834
410-39177-3	DUP-7_20210507	Total/NA	Water	351.2	125834
410-39177-4	ARCO-2_20210507	Total/NA	Water	351.2	125834
410-39177-5	S-230_20210507	Total/NA	Water	351.2	125834
410-39177-6	ARCO-1_20210507	Total/NA	Water	351.2	125834
410-39177-7	S-418_20210507	Total/NA	Water	351.2	125834
410-39177-8	ARCO-3_20210507	Total/NA	Water	351.2	125834
410-39177-9	B-172_20210507	Total/NA	Water	351.2	125834
410-39177-10	S-39D_20210507	Total/NA	Water	351.2	125834
410-39177-11	FB_20210510	Total/NA	Water	351.2	125834
MB 410-125834/2-A	Method Blank	Total/NA	Water	351.2	125834
LCS 410-125834/1-A	Lab Control Sample	Total/NA	Water	351.2	125834
410-39177-8 MS	ARCO-3_20210507	Total/NA	Water	351.2	125834
410-39177-8 DU	ARCO-3_20210507	Total/NA	Water	351.2	125834

Analysis Batch: 128689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-1	S-271_20210507	Total/NA	Water	SM5310C	
410-39177-2	ARCO-1D_20210507	Total/NA	Water	SM5310C	
410-39177-3	DUP-7_20210507	Total/NA	Water	SM5310C	
410-39177-4	ARCO-2_20210507	Total/NA	Water	SM5310C	
410-39177-5	S-230_20210507	Total/NA	Water	SM5310C	
410-39177-6	ARCO-1_20210507	Total/NA	Water	SM5310C	

General Chemistry (Continued)

Analysis Batch: 128689 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39177-7	S-418_20210507	Total/NA	Water	SM5310C	
410-39177-8	ARCO-3_20210507	Total/NA	Water	SM5310C	
410-39177-9	B-172_20210507	Total/NA	Water	SM5310C	
410-39177-10	S-39D_20210507	Total/NA	Water	SM5310C	
410-39177-11	FB_20210510	Total/NA	Water	SM5310C	

Client Sample ID: S-271_20210507

Lab Sample ID: 410-39177-1

Date Collected: 05/07/21 08:35

Matrix: Water

Date Received: 05/10/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	125930	05/13/21 19:27	UKAD	ELLE
Total/NA	Analysis	8260C/UST		50	127638	05/18/21 19:43	UKAD	ELLE
Total/NA	Prep	3510C			126150	05/13/21 17:42	FTV5	ELLE
Total/NA	Analysis	8270D		1	126659	05/15/21 07:11	SJ89	ELLE
Total/NA	Prep	RSK-175			124784	05/11/21 07:57	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	124820	05/11/21 17:46	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		125331	05/12/21 08:02	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	100	125340	05/12/21 13:23	LXF2	ELLE
Total/NA	Prep	8011			126728	05/15/21 09:16	UKQ8	ELLE
Total/NA	Analysis	8011		1	126906	05/17/21 09:32	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	125315	05/12/21 10:40	W5UX	ELLE
Total Recoverable	Prep	3005A			125006	05/11/21 13:42	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	125665	05/12/21 16:00	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			125106	05/11/21 17:20	UJLA	ELLE
Dissolved	Analysis	6020A		1	125899	05/12/21 22:38	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	126089	05/13/21 04:03	DI9Q	ELLE
Total/NA	Prep	351.2			125834	05/13/21 07:15	UNJS	ELLE
Total/NA	Analysis	351.2		1	128342	05/19/21 14:24	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	125988	05/12/21 18:24	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	126741	05/14/21 19:23	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	128689	05/20/21 10:27	N3PD	ELLE

Client Sample ID: ARCO-1D_20210507

Lab Sample ID: 410-39177-2

Date Collected: 05/07/21 08:40

Matrix: Water

Date Received: 05/10/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	125930	05/13/21 16:15	UKAD	ELLE
Total/NA	Prep	3510C			126150	05/13/21 17:42	FTV5	ELLE
Total/NA	Analysis	8270D		1	126659	05/15/21 07:39	SJ89	ELLE
Total/NA	Prep	RSK-175			124784	05/11/21 07:57	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	124820	05/11/21 18:02	LXF2	ELLE
Total/NA	Prep	8011			126728	05/15/21 09:16	UKQ8	ELLE
Total/NA	Analysis	8011		1	126906	05/17/21 09:49	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	125315	05/12/21 10:56	W5UX	ELLE
Total Recoverable	Prep	3005A			125006	05/11/21 13:42	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	125665	05/12/21 16:50	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			125106	05/11/21 17:20	UJLA	ELLE
Dissolved	Analysis	6020A		1	125899	05/12/21 22:42	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	126089	05/13/21 04:40	DI9Q	ELLE
Total/NA	Prep	351.2			125834	05/13/21 07:15	UNJS	ELLE
Total/NA	Analysis	351.2		1	128342	05/19/21 14:32	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	125988	05/12/21 18:35	KGQ6	ELLE

Client Sample ID: ARCO-1D_20210507

Lab Sample ID: 410-39177-2

Date Collected: 05/07/21 08:40

Matrix: Water

Date Received: 05/10/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	5310C-2011		1	126474	05/14/21 01:15	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	128689	05/20/21 10:27	N3PD	ELLE

Client Sample ID: DUP-7_20210507

Lab Sample ID: 410-39177-3

Date Collected: 05/07/21 00:00

Matrix: Water

Date Received: 05/10/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	126093	05/13/21 17:46	UKAD	ELLE
Total/NA	Prep	3510C			126150	05/13/21 17:42	FTV5	ELLE
Total/NA	Analysis	8270D		1	126792	05/16/21 16:48	WKV3	ELLE
Total/NA	Prep	RSK-175			124784	05/11/21 07:57	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	124820	05/11/21 18:19	LXF2	ELLE
Total/NA	Prep	8011			126728	05/15/21 09:16	UKQ8	ELLE
Total/NA	Analysis	8011		1	126906	05/17/21 10:06	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	125315	05/12/21 11:12	W5UX	ELLE
Total Recoverable	Prep	3005A			125006	05/11/21 13:42	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	125665	05/12/21 16:41	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			125106	05/11/21 17:20	UJLA	ELLE
Dissolved	Analysis	6020A		1	125899	05/12/21 22:44	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	126089	05/13/21 04:47	DI9Q	ELLE
Total/NA	Prep	351.2			125834	05/13/21 07:15	UNJS	ELLE
Total/NA	Analysis	351.2		1	128342	05/19/21 14:21	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	125988	05/12/21 18:46	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	126474	05/14/21 01:30	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	128689	05/20/21 10:27	N3PD	ELLE

Client Sample ID: ARCO-2_20210507

Lab Sample ID: 410-39177-4

Date Collected: 05/07/21 10:00

Matrix: Water

Date Received: 05/10/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	126093	05/13/21 22:07	UKAD	ELLE
Total/NA	Prep	3510C			126150	05/13/21 17:42	FTV5	ELLE
Total/NA	Analysis	8270D		1	126792	05/16/21 17:16	WKV3	ELLE
Total/NA	Prep	RSK-175			124784	05/11/21 07:57	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	124820	05/11/21 18:36	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		125331	05/12/21 08:02	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	200	125340	05/12/21 13:41	LXF2	ELLE
Total/NA	Prep	8011			126728	05/15/21 09:16	UKQ8	ELLE
Total/NA	Analysis	8011		1	126906	05/17/21 10:23	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	125329	05/12/21 08:01	Z7CH	ELLE
Total Recoverable	Prep	3005A			125006	05/11/21 13:42	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	125665	05/12/21 16:54	UCIG	ELLE

Client Sample ID: ARCO-2_20210507

Lab Sample ID: 410-39177-4

Date Collected: 05/07/21 10:00

Matrix: Water

Date Received: 05/10/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			125106	05/11/21 17:20	UJLA	ELLE
Dissolved	Analysis	6020A		1	125899	05/12/21 22:54	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	126089	05/13/21 04:55	DI9Q	ELLE
Total/NA	Prep	351.2			125834	05/13/21 07:15	UNJS	ELLE
Total/NA	Analysis	351.2		1	128342	05/19/21 14:26	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	125988	05/12/21 18:57	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		2	126474	05/14/21 01:44	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	128689	05/20/21 10:27	N3PD	ELLE

Client Sample ID: S-230_20210507

Lab Sample ID: 410-39177-5

Date Collected: 05/07/21 10:55

Matrix: Water

Date Received: 05/10/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		10	126093	05/13/21 23:19	UKAD	ELLE
Total/NA	Analysis	8260C/UST	DL	100	126093	05/13/21 23:43	UKAD	ELLE
Total/NA	Prep	3510C			126150	05/13/21 17:42	FTV5	ELLE
Total/NA	Analysis	8270D		1	126792	05/16/21 17:44	WKV3	ELLE
Total/NA	Prep	RSK-175			124784	05/11/21 07:57	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	124820	05/11/21 18:53	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		125331	05/12/21 08:02	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	20	125340	05/12/21 13:59	LXF2	ELLE
Total/NA	Prep	8011			126728	05/15/21 09:16	UKQ8	ELLE
Total/NA	Analysis	8011		1	126906	05/17/21 10:40	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	125329	05/12/21 08:34	Z7CH	ELLE
Total Recoverable	Prep	3005A			125006	05/11/21 13:44	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	125665	05/12/21 17:03	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			125106	05/11/21 17:20	UJLA	ELLE
Dissolved	Analysis	6020A		1	125899	05/12/21 22:40	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	126089	05/13/21 04:09	DI9Q	ELLE
Total/NA	Prep	351.2			125834	05/13/21 07:15	UNJS	ELLE
Total/NA	Analysis	351.2		1	128342	05/19/21 14:05	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	125988	05/12/21 19:07	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	126474	05/14/21 03:36	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	128689	05/20/21 10:27	N3PD	ELLE

Client Sample ID: ARCO-1_20210507

Lab Sample ID: 410-39177-6

Date Collected: 05/07/21 11:10

Matrix: Water

Date Received: 05/10/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	126093	05/13/21 22:31	UKAD	ELLE
Total/NA	Prep	3510C			126150	05/13/21 17:42	FTV5	ELLE
Total/NA	Analysis	8270D		1	126792	05/16/21 18:12	WKV3	ELLE

Client Sample ID: ARCO-1_20210507

Lab Sample ID: 410-39177-6

Date Collected: 05/07/21 11:10

Matrix: Water

Date Received: 05/10/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	RSK-175			124784	05/11/21 07:57	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	124820	05/11/21 19:10	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		125331	05/12/21 08:02	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	100	125340	05/12/21 14:22	LXF2	ELLE
Total/NA	Prep	8011			126728	05/15/21 09:16	UKQ8	ELLE
Total/NA	Analysis	8011		1	126906	05/17/21 10:57	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	125329	05/12/21 08:45	Z7CH	ELLE
Total Recoverable	Prep	3005A			125006	05/11/21 13:42	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	125665	05/12/21 16:03	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			125106	05/11/21 17:20	UJLA	ELLE
Dissolved	Analysis	6020A		1	125899	05/12/21 22:20	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	126089	05/13/21 04:23	DI9Q	ELLE
Total/NA	Prep	351.2			125834	05/13/21 07:15	UNJS	ELLE
Total/NA	Analysis	351.2		1	128342	05/19/21 14:07	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	125988	05/12/21 19:40	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		2	126474	05/14/21 03:50	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	128689	05/20/21 10:27	N3PD	ELLE

Client Sample ID: S-418_20210507

Lab Sample ID: 410-39177-7

Date Collected: 05/07/21 12:30

Matrix: Water

Date Received: 05/10/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		10	126093	05/14/21 00:06	UKAD	ELLE
Total/NA	Analysis	8260C/UST	DL	100	126093	05/14/21 00:30	UKAD	ELLE
Total/NA	Prep	3510C			126150	05/13/21 17:42	FTV5	ELLE
Total/NA	Analysis	8270D		1	126792	05/16/21 18:40	WKV3	ELLE
Total/NA	Prep	RSK-175			124784	05/11/21 07:57	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	124820	05/11/21 19:27	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		125331	05/12/21 08:02	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	200	125340	05/12/21 14:40	LXF2	ELLE
Total/NA	Prep	8011			126728	05/15/21 09:16	UKQ8	ELLE
Total/NA	Analysis	8011		1	126906	05/17/21 11:14	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	125329	05/12/21 08:57	Z7CH	ELLE
Total Recoverable	Prep	3005A			125006	05/11/21 13:44	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	125665	05/12/21 17:00	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			125106	05/11/21 17:20	UJLA	ELLE
Dissolved	Analysis	6020A		1	125899	05/12/21 22:52	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	126089	05/13/21 03:50	DI9Q	ELLE
Total/NA	Prep	351.2			125834	05/13/21 07:15	UNJS	ELLE
Total/NA	Analysis	351.2		1	128342	05/19/21 14:19	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	125988	05/12/21 19:51	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	126474	05/14/21 04:04	KGQ6	ELLE

Client Sample ID: S-418_20210507

Lab Sample ID: 410-39177-7

Date Collected: 05/07/21 12:30

Matrix: Water

Date Received: 05/10/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM5310C		1	128689	05/20/21 10:27	N3PD	ELLE

Client Sample ID: ARCO-3_20210507

Lab Sample ID: 410-39177-8

Date Collected: 05/07/21 12:30

Matrix: Water

Date Received: 05/10/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	126093	05/14/21 00:54	UKAD	ELLE
Total/NA	Analysis	8260C/UST	DL	50	126093	05/14/21 01:18	UKAD	ELLE
Total/NA	Prep	3510C			126340	05/14/21 09:30	R9CT	ELLE
Total/NA	Analysis	8270D		1	126963	05/17/21 16:20	WKV3	ELLE
Total/NA	Prep	RSK-175			124784	05/11/21 07:57	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	124820	05/11/21 19:44	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		125331	05/12/21 08:02	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	200	125340	05/12/21 14:59	LXF2	ELLE
Total/NA	Prep	8011			126728	05/15/21 09:16	UKQ8	ELLE
Total/NA	Analysis	8011		1	126906	05/17/21 11:31	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	125329	05/12/21 09:08	Z7CH	ELLE
Total Recoverable	Prep	3005A			125006	05/11/21 13:44	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	125665	05/12/21 16:57	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			125106	05/11/21 17:20	UJLA	ELLE
Dissolved	Analysis	6020A		1	125899	05/12/21 22:48	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	126089	05/13/21 04:16	DI9Q	ELLE
Total/NA	Prep	351.2			125834	05/13/21 07:15	UNJS	ELLE
Total/NA	Analysis	351.2		1	128342	05/19/21 13:59	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	125988	05/12/21 20:02	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		2	126474	05/14/21 04:18	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	128689	05/20/21 10:27	N3PD	ELLE

Client Sample ID: B-172_20210507

Lab Sample ID: 410-39177-9

Date Collected: 05/07/21 14:00

Matrix: Water

Date Received: 05/10/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	126093	05/13/21 18:10	UKAD	ELLE
Total/NA	Prep	3510C			126340	05/14/21 09:30	R9CT	ELLE
Total/NA	Analysis	8270D		1	126963	05/17/21 16:48	WKV3	ELLE
Total/NA	Prep	RSK-175			125332	05/12/21 08:04	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	125348	05/12/21 10:22	LXF2	ELLE
Total/NA	Prep	8011			126728	05/15/21 09:16	UKQ8	ELLE
Total/NA	Analysis	8011		1	126906	05/17/21 11:48	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	125329	05/12/21 10:36	Z7CH	ELLE
Total Recoverable	Prep	3005A			125006	05/11/21 13:44	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	125665	05/12/21 17:06	UCIG	ELLE

Client Sample ID: B-172_20210507

Lab Sample ID: 410-39177-9

Date Collected: 05/07/21 14:00

Matrix: Water

Date Received: 05/10/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			125106	05/11/21 17:20	UJLA	ELLE
Dissolved	Analysis	6020A		1	125899	05/12/21 22:50	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	126089	05/13/21 05:01	DI9Q	ELLE
Total/NA	Prep	351.2			125834	05/13/21 07:15	UNJS	ELLE
Total/NA	Analysis	351.2		1	128342	05/19/21 14:13	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	125988	05/12/21 20:12	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	126474	05/14/21 04:33	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	128689	05/20/21 10:27	N3PD	ELLE

Client Sample ID: S-39D_20210507

Lab Sample ID: 410-39177-10

Date Collected: 05/07/21 14:15

Matrix: Water

Date Received: 05/10/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	126093	05/13/21 18:33	UKAD	ELLE
Total/NA	Prep	3510C			126340	05/14/21 09:30	R9CT	ELLE
Total/NA	Analysis	8270D		1	126963	05/17/21 17:16	WKV3	ELLE
Total/NA	Prep	RSK-175			125332	05/12/21 08:04	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	125348	05/12/21 10:37	LXF2	ELLE
Total/NA	Prep	8011			126728	05/15/21 09:16	UKQ8	ELLE
Total/NA	Analysis	8011		1	126906	05/17/21 12:05	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		20	125329	05/12/21 09:19	Z7CH	ELLE
Total Recoverable	Prep	3005A			125006	05/11/21 13:42	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	125665	05/12/21 16:12	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			125106	05/11/21 17:20	UJLA	ELLE
Dissolved	Analysis	6020A		1	125899	05/12/21 22:46	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	126089	05/13/21 03:30	DI9Q	ELLE
Total/NA	Prep	351.2			125834	05/13/21 07:15	UNJS	ELLE
Total/NA	Analysis	351.2		5	128342	05/19/21 15:01	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	125988	05/12/21 20:23	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	126474	05/14/21 05:15	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	128689	05/20/21 10:27	N3PD	ELLE

Client Sample ID: FB_20210510

Lab Sample ID: 410-39177-11

Date Collected: 05/10/21 09:00

Matrix: Water

Date Received: 05/10/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	126093	05/13/21 16:34	UKAD	ELLE
Total/NA	Prep	3510C			126773	05/16/21 02:03	UKQ8	ELLE
Total/NA	Analysis	8270D		1	126806	05/16/21 19:50	W6XI	ELLE
Total/NA	Prep	RSK-175			125332	05/12/21 08:04	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	125348	05/12/21 10:53	LXF2	ELLE

Lab Chronicle

Client: Stantec Consulting Corp.
Job ID: 410-39177-1
Project/Site: Former PES Annual GWS

Client Sample ID: FB_20210510
Lab Sample ID: 410-39177-11
Date Collected: 05/10/21 09:00
Matrix: Water
Date Received: 05/10/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			126728	05/15/21 09:16	UKQ8	ELLE
Total/NA	Analysis	8011		1	126906	05/17/21 12:22	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		1	125329	05/12/21 10:03	Z7CH	ELLE
Total Recoverable	Prep	3005A			125006	05/11/21 13:42	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	125665	05/12/21 15:41	UCIG	ELLE
Dissolved	Prep	Non-Digest Prep			125106	05/11/21 17:20	UJLA	ELLE
Dissolved	Analysis	6020A		1	125899	05/12/21 22:56	S4PD	ELLE
Total/NA	Analysis	2320B-2011		1	126089	05/13/21 05:07	DI9Q	ELLE
Total/NA	Prep	351.2			125834	05/13/21 07:15	UNJS	ELLE
Total/NA	Analysis	351.2		1	128342	05/19/21 14:15	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		1	125988	05/12/21 20:55	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	126474	05/14/21 05:30	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	128689	05/20/21 10:27	N3PD	ELLE

Client Sample ID: TB_20210510
Lab Sample ID: 410-39177-12
Date Collected: 05/03/21 00:00
Matrix: Water
Date Received: 05/10/21 18:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	126093	05/13/21 16:58	UKAD	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39177-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
5310 B-2011		Water	Total Carbon
SM5310C		Water	Total Inorganic Carbon

Method Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39177-1

Method	Method Description	Protocol	Laboratory
8260C/UST	Volatile Organic Compounds (GC/MS)	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
RSK-175	Dissolved Gases (GC)	RSK	ELLE
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	ELLE
6010C	Metals (ICP)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
2320B-2011	Alkalinity, Total	SM	ELLE
351.2	Nitrogen, Total Kjeldahl	MCAWW	ELLE
5310 B-2011	Carbon, Total and Total Inorganic	SM	ELLE
5310C-2011	Total Organic Carbon/Persulfate - Ultrav	SM	ELLE
SM5310C	Carbon, Total Inorganic	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
351.2	Nitrogen, Total Kjeldahl	MCAWW	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
8011	Microextraction	SW846	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique , RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39177-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-39177-1	S-271_20210507	Water	05/07/21 08:35	05/10/21 18:05	
410-39177-2	ARCO-1D_20210507	Water	05/07/21 08:40	05/10/21 18:05	
410-39177-3	DUP-7_20210507	Water	05/07/21 00:00	05/10/21 18:05	
410-39177-4	ARCO-2_20210507	Water	05/07/21 10:00	05/10/21 18:05	
410-39177-5	S-230_20210507	Water	05/07/21 10:55	05/10/21 18:05	
410-39177-6	ARCO-1_20210507	Water	05/07/21 11:10	05/10/21 18:05	
410-39177-7	S-418_20210507	Water	05/07/21 12:30	05/10/21 18:05	
410-39177-8	ARCO-3_20210507	Water	05/07/21 12:30	05/10/21 18:05	
410-39177-9	B-172_20210507	Water	05/07/21 14:00	05/10/21 18:05	
410-39177-10	S-39D_20210507	Water	05/07/21 14:15	05/10/21 18:05	
410-39177-11	FB_20210510	Water	05/10/21 09:00	05/10/21 18:05	
410-39177-12	TB_20210510	Water	05/03/21 00:00	05/10/21 18:05	

E ysis Request/Chain of Custody

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410-39177-01 Chain of Custody

Sample # _____

Client:	Evergreen c/o Stantec		
Project Name/#:	Former PES Annual GWS	Site ID #:	16657
Project Manager:	Andrew Bradley	P.O. #:	213403363
Sampler:	Dane Hopkins, Maddie Bredehoeft, Andrea Hill	PWSID #:	
Phone #:	610.840.2541	Quote #:	
State where sample(s) were collected:	PA		

For Lab Use Only

SF #: _____

SCR #: _____

Preservation Codes: H = HCl, T = Thiosulfate, N = HNO_3, B = NaOH, S = H_2SO_4, P = H_3PO_4, O = Other, NP = Non-Preserved

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil ☐ Sediment	Matrix: Water ☑ Ground ☐ Potable ☐ Surface ☐ NPDES	Matrix: Other: Trip Blank / Field Blank	Total # of Containers	Analyses Requested: Evergreen Petroleum Short List (refer to attached list of analytes) H / NP	Dissolved Lead (field filtered) N	Total Inorganic Carbon (TIC) P/NP	Sulfate NP	Dissolved Headspace Gases (methane, ethane, ethene) H	Total Iron N	Total Calcium N	Total Kjeldahl Nitrogen (TKN) S	Alkalinity as CaCO3 NP	VOC 8260 (including EDB 8260) H	Remarks
S-271_20210507	5/7/2021	8:35	X			X		18	X	X	X	X	X	X	X	X	X		
ARCO-1D_20210507	5/7/2021	8:40	X			X		18	X	X	X	X	X	X	X	X	X		
DUP-7_20210507	5/7/2021	--	X			X		18	X	X	X	X	X	X	X	X	X		
ARCO-2_20210507	5/7/2021	10:00	X			X		18	X	X	X	X	X	X	X	X	X		
S-230_20210507	5/7/2021	10:55	X			X		18	X	X	X	X	X	X	X	X	X		
ARCO-1_20210507	5/7/2021	11:10	X			X		18	X	X	X	X	X	X	X	X	X		
S-418_20210507	5/7/2021	12:30	X			X		18	X	X	X	X	X	X	X	X	X		
ARCO-3_20210507	5/7/2021	12:30	X			X		18	X	X	X	X	X	X	X	X	X		
B-172_20210507	5/7/2021	14:00	X			X		18	X	X	X	X	X	X	X	X	X		
S-39D_20210507	5/7/2021	14:15	X			X		18	X	X	X	X	X	X	X	X	X		
FB_20210510	5/10/2021	9:00	X				X	18	X	X	X	X	X	X	X	X	X		Field Blank

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐

(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed:

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: abradley@stantec.com

Phone: 610.840.2541

Data Package Options (please check if required)

- Type I (Validation/non-CLP) ☐
- Type III (Reduced non-CLP) ☐
- Type IV (CLP SOW) ☐
- Type VI (Raw Data Only) ☐
- MA MCP ☐
- CT RCP ☐
- TX TRRP-13 ☐

EDD Required? Yes ☑ No ☐ If yes, format: __ EQUIS

Relinquished by:	Date	Time	Received by:	Date	Time
[signature]	5/10/21	1245	[signature]	5/10	12:45
[signature]	5/10/21	18:05			
			[signature]	5/10/21	1805

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt 2.5-3.9 °C

KAM

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

KAM

7045 0713

Environmental Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

Acct. # _____ Group # _____ Sample # _____

| | | |

Evergreen Petroleum Short List (June 2016)

410-39177-02 Chain of Custody

VOCs by EPA Method 8260	CAS No.
Benzene	71-43-2
Cumene	98-82-8
Dichloroethane, 1,2-	107-06-2
Ethylbenzene	100-41-4
Ethylene Dibromide*	106-93-4
Methyl tert butyl ether	1634-04-4
Toluene	108-88-3
Trimethylbenzene, 1,2,4-	95-63-6
Trimethylbenzene, 1,3,5-	108-67-8
Xylenes	1330-20-7

SVOCs by EPA Method 8270	CAS No.
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Chrysene	218-01-9
Fluorene	86-73-7
Naphthalene**	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Metals by Method 6010/6020	CAS No.
Lead***	7439-92-1

*Ethylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

**Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

***Metals analysis should be total in soil and dissolved in groundwater.

This list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline and No. 1, 2, 4, 5, 6 Fuel Oils).

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-39177-1

Login Number: 39177

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Metzger, Katherine A

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	True	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-39343-1
Client Project/Site: Former PES Annual GWS

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Mr. Andrew Bradley

Authorized for release by:
5/21/2021 9:08:47 AM

Amek Carter, Project Manager
(717)556-7252
Loran.Carter@eurofinset.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
5/21/2021 9:08:47 AM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 6
Detection Summary 7
Client Sample Results 10
Surrogate Summary 21
QC Sample Results 23
QC Association Summary 36
Lab Chronicle 42
Certification Summary 47
Method Summary 48
Sample Summary 49
Chain of Custody 50
Receipt Checklists 52

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

HPLC/IC

Qualifier	Qualifier Description
^c	CCV Recovery is outside acceptance limits.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39343-1

Job ID: 410-39343-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-39343-1

Receipt
The samples were received on 5/11/2021 5:10 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.8°C and 3.2°C

GC/MS VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
Method RSK_175: The method requirement for no headspace was not met. The following volatile sample was analyzed for Methane with significant headspace in the sample container(s): DUP-8_20210510 (410-39343-2). Significant headspace is defined as a bubble greater than 6 mm in diameter.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8011: Surrogate recovery for the following sample was outside control limits: RW-703_20210510 (410-39343-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
Method 300_ORGFM_28D: The continuing calibration verification (CCV) associated with batch 410-125607 recovered above the upper control limit for Sulfate. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: DUP-8_20210510 (410-39343-2), C-106_SL_20210510 (410-39343-3) and RW-703_20210510 (410-39343-4).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39343-1

Client Sample ID: S-369_20210510 — Lab Sample ID: 410-39343-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	9.7		1.0	0.40	ug/L	1		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	2.4	J	5.0	0.30	ug/L	1		8260C/UST	Total/NA
Toluene	37		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Xylenes, Total	25		6.0	1.4	ug/L	1		8260C/UST	Total/NA
Methyl tert-butyl ether	1.9		1.0	0.20	ug/L	1		8260C/UST	Total/NA
1,2,4-Trimethylbenzene	12		5.0	1.0	ug/L	1		8260C/UST	Total/NA
Isopropylbenzene	91		5.0	0.20	ug/L	1		8260C/UST	Total/NA
t-Butyl alcohol	180		50	12	ug/L	1		8260C/UST	Total/NA
Benzene - DL	360		10	2.0	ug/L	10		8260C/UST	Total/NA
Anthracene	0.11	J	0.53	0.11	ug/L	1		8270D	Total/NA
Fluorene	1.7		0.53	0.13	ug/L	1		8270D	Total/NA
Naphthalene	1.1		0.53	0.11	ug/L	1		8270D	Total/NA
Phenanthrene	1.1		0.53	0.12	ug/L	1		8270D	Total/NA
Methane (1C) - DL	23000		1000	600	ug/L	200		RSK-175	Total/NA
Calcium	40000		500	96	ug/L	1		6010C	Total Recoverable
Iron	51000		200	40	ug/L	1		6010C	Total Recoverable
Lead	0.79		0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	280000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	1600		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	91000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	13000		2000	1000	ug/L	2		5310C-2011	Total/NA
Total Inorganic Carbon	78000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: DUP-8_20210510 — Lab Sample ID: 410-39343-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	10		1.0	0.40	ug/L	1		8260C/UST	Total/NA
1,2-Dichloroethane	3.3		1.0	0.30	ug/L	1		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	2.5	J	5.0	0.30	ug/L	1		8260C/UST	Total/NA
Toluene	41		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Xylenes, Total	26		6.0	1.4	ug/L	1		8260C/UST	Total/NA
Methyl tert-butyl ether	2.0		1.0	0.20	ug/L	1		8260C/UST	Total/NA
1,2,4-Trimethylbenzene	13		5.0	1.0	ug/L	1		8260C/UST	Total/NA
Isopropylbenzene	100		5.0	0.20	ug/L	1		8260C/UST	Total/NA
t-Butyl alcohol	180		50	12	ug/L	1		8260C/UST	Total/NA
Benzene - DL	370		10	2.0	ug/L	10		8260C/UST	Total/NA
Anthracene	0.12	J	0.50	0.10	ug/L	1		8270D	Total/NA
Fluorene	2.1		0.50	0.12	ug/L	1		8270D	Total/NA
Phenanthrene	1.3		0.50	0.11	ug/L	1		8270D	Total/NA
Methane (1C) - DL	21000		1000	600	ug/L	200		RSK-175	Total/NA
Calcium	41000		500	96	ug/L	1		6010C	Total Recoverable
Iron	51000		200	40	ug/L	1		6010C	Total Recoverable
Lead	0.76		0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	280000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	1600		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	83000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	13000		2000	1000	ug/L	2		5310C-2011	Total/NA
Total Inorganic Carbon	70000		2000	600	ug/L	1		SM5310C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39343-1

Client Sample ID: C-106_SL_20210510 — Lab Sample ID: 410-39343-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	0.68	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Benzene	1.1		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Isopropylbenzene	0.44	J	5.0	0.20	ug/L	1		8260C/UST	Total/NA
Anthracene	0.23	J	0.51	0.10	ug/L	1		8270D	Total/NA
Fluorene	0.62		0.51	0.12	ug/L	1		8270D	Total/NA
Phenanthrene	0.79		0.51	0.11	ug/L	1		8270D	Total/NA
Pyrene	0.42	J	0.51	0.10	ug/L	1		8270D	Total/NA
Ethane (1C)	1.5	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	21000		1000	600	ug/L	200		RSK-175	Total/NA
Calcium	71000		500	96	ug/L	1		6010C	Total Recoverable
Iron	14000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	340000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	3400		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	78000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	7700		2000	1000	ug/L	2		5310C-2011	Total/NA
Total Inorganic Carbon	70000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: RW-703_20210510 — Lab Sample ID: 410-39343-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	140		5.0	2.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	250		25	1.5	ug/L	5		8260C/UST	Total/NA
Toluene	82		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	2000		30	7.0	ug/L	5		8260C/UST	Total/NA
1,2,4-Trimethylbenzene	410		25	5.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	3.9	J	25	1.0	ug/L	5		8260C/UST	Total/NA
t-Butyl alcohol	63	J	250	60	ug/L	5		8260C/UST	Total/NA
Benzene - DL	3800		50	10	ug/L	50		8260C/UST	Total/NA
Anthracene	2.0		0.55	0.11	ug/L	1		8270D	Total/NA
Fluorene	4.2		0.55	0.13	ug/L	1		8270D	Total/NA
Naphthalene	34		0.55	0.11	ug/L	1		8270D	Total/NA
Phenanthrene	5.6		0.55	0.12	ug/L	1		8270D	Total/NA
Pyrene	0.81		0.55	0.11	ug/L	1		8270D	Total/NA
Ethane (1C)	1.0	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	15000		500	300	ug/L	100		RSK-175	Total/NA
Calcium	47000		500	96	ug/L	1		6010C	Total Recoverable
Iron	49000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	270000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	4300		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	87000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	23000		2000	1000	ug/L	2		5310C-2011	Total/NA
Total Inorganic Carbon	64000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: RW-701_20210510 — Lab Sample ID: 410-39343-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	0.93	J	1.0	0.40	ug/L	1		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	34		5.0	0.30	ug/L	1		8260C/UST	Total/NA
Toluene	2.4		1.0	0.20	ug/L	1		8260C/UST	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample ID: RW-701_20210510 (Continued)

Lab Sample ID: 410-39343-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Xylenes, Total	56		6.0	1.4	ug/L	1		8260C/UST	Total/NA
Methyl tert-butyl ether	0.44	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Benzene	26		1.0	0.20	ug/L	1		8260C/UST	Total/NA
1,2,4-Trimethylbenzene	6.3		5.0	1.0	ug/L	1		8260C/UST	Total/NA
Methane (1C) - DL	3900		100	60	ug/L	20		RSK-175	Total/NA
Calcium	49000		500	96	ug/L	1		6010C	Total Recoverable
Iron	6200		200	40	ug/L	1		6010C	Total Recoverable
Lead	0.26	J	0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	210000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	950	J	1000	500	ug/L	1		351.2	Total/NA
Total Carbon	44000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	3900		2000	1000	ug/L	2		5310C-2011	Total/NA
Total Inorganic Carbon	40000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: RWBH-2_SL_20210510

Lab Sample ID: 410-39343-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,3,5-Trimethylbenzene	0.92	J	5.0	0.30	ug/L	1		8260C/UST	Total/NA
Toluene	0.41	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Benzene	0.34	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Isopropylbenzene	2.3	J	5.0	0.20	ug/L	1		8260C/UST	Total/NA
Fluorene	0.22	J	0.50	0.12	ug/L	1		8270D	Total/NA
Methane (1C) - DL	7600		250	150	ug/L	50		RSK-175	Total/NA
Calcium	45000		500	96	ug/L	1		6010C	Total Recoverable
Iron	3700		200	40	ug/L	1		6010C	Total Recoverable
Lead	0.22	J	0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	160000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	1200		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	37000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	3900		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	33000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: TB_20210511

Lab Sample ID: 410-39343-7

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: S-369_20210510

Date Collected: 05/10/21 09:10
Date Received: 05/11/21 17:10

Lab Sample ID: 410-39343-1

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**9.7**		1.0	0.40	ug/L			05/13/21 18:57	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/13/21 18:57	1
1,3,5-Trimethylbenzene	**2.4**	**J**	5.0	0.30	ug/L			05/13/21 18:57	1
Toluene	**37**		1.0	0.20	ug/L			05/13/21 18:57	1
Xylenes, Total	**25**		6.0	1.4	ug/L			05/13/21 18:57	1
Methyl tert-butyl ether	**1.9**		1.0	0.20	ug/L			05/13/21 18:57	1
1,2,4-Trimethylbenzene	**12**		5.0	1.0	ug/L			05/13/21 18:57	1
Isopropylbenzene	**91**		5.0	0.20	ug/L			05/13/21 18:57	1
t-Butyl alcohol	**180**		50	12	ug/L			05/13/21 18:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*84*		*80 - 120*		*05/13/21 18:57*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*05/13/21 18:57*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*05/13/21 18:57*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*05/13/21 18:57*	*1*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**360**		10	2.0	ug/L			05/17/21 16:39	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*80 - 120*		*05/17/21 16:39*	*10*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*05/17/21 16:39*	*10*
Dibromofluoromethane (Surr)	*110*		*80 - 120*		*05/17/21 16:39*	*10*
Toluene-d8 (Surr)	*106*		*80 - 120*		*05/17/21 16:39*	*10*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**0.11**	**J**	0.53	0.11	ug/L		05/16/21 02:14	05/18/21 03:08	1
Benzo[a]anthracene	ND		0.53	0.11	ug/L		05/16/21 02:14	05/18/21 03:08	1
Benzo[a]pyrene	ND		0.53	0.12	ug/L		05/16/21 02:14	05/18/21 03:08	1
Benzo[b]fluoranthene	ND		0.53	0.11	ug/L		05/16/21 02:14	05/18/21 03:08	1
Benzo[g,h,i]perylene	ND		0.53	0.11	ug/L		05/16/21 02:14	05/18/21 03:08	1
Chrysene	ND		0.53	0.11	ug/L		05/16/21 02:14	05/18/21 03:08	1
Fluorene	**1.7**		0.53	0.13	ug/L		05/16/21 02:14	05/18/21 03:08	1
Naphthalene	**1.1**		0.53	0.11	ug/L		05/16/21 02:14	05/18/21 03:08	1
Phenanthrene	**1.1**		0.53	0.12	ug/L		05/16/21 02:14	05/18/21 03:08	1
Pyrene	ND		0.53	0.11	ug/L		05/16/21 02:14	05/18/21 03:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*69*		*35 - 100*	*05/16/21 02:14*	*05/18/21 03:08*	*1*
Nitrobenzene-d5 (Surr)	*70*		*22 - 117*	*05/16/21 02:14*	*05/18/21 03:08*	*1*
p-Terphenyl-d14 (Surr)	*88*		*31 - 119*	*05/16/21 02:14*	*05/18/21 03:08*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/12/21 08:06	05/12/21 19:38	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/12/21 08:06	05/12/21 19:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*91*		*28 - 140*	*05/12/21 08:06*	*05/12/21 19:38*	*1*

Client Sample ID: S-369_20210510

Lab Sample ID: 410-39343-1

Date Collected: 05/10/21 09:10

Matrix: Water

Date Received: 05/11/21 17:10

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	23000		1000	600	ug/L		05/13/21 08:34	05/13/21 13:57	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*104*		*28 - 140*	*05/13/21 08:34*	*05/13/21 13:57*	*200*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.029	0.0095	ug/L		05/15/21 09:16	05/17/21 12:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*114*		*46 - 136*	*05/15/21 09:16*	*05/17/21 12:39*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*107*		*46 - 136*	*05/15/21 09:16*	*05/17/21 12:39*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			05/13/21 15:46	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	40000		500	96	ug/L		05/12/21 14:21	05/14/21 14:28	1
Iron	51000		200	40	ug/L		05/12/21 14:21	05/17/21 15:58	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.79		0.52	0.073	ug/L		05/12/21 15:31	05/13/21 18:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	280000		8000	8000	ug/L			05/13/21 07:26	1
Total Kjeldahl Nitrogen	1600		1000	500	ug/L		05/13/21 14:24	05/20/21 11:51	1
Total Carbon	91000		10000	5000	ug/L			05/18/21 19:04	10
Total Organic Carbon	13000		2000	1000	ug/L			05/14/21 02:20	2
Total Inorganic Carbon	78000		2000	600	ug/L			05/21/21 10:54	1

Client Sample ID: DUP-8_20210510

Lab Sample ID: 410-39343-2

Date Collected: 05/10/21 00:00

Matrix: Water

Date Received: 05/11/21 17:10

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	10		1.0	0.40	ug/L			05/13/21 19:21	1
1,2-Dichloroethane	3.3		1.0	0.30	ug/L			05/13/21 19:21	1
1,3,5-Trimethylbenzene	2.5	J	5.0	0.30	ug/L			05/13/21 19:21	1
Toluene	41		1.0	0.20	ug/L			05/13/21 19:21	1
Xylenes, Total	26		6.0	1.4	ug/L			05/13/21 19:21	1
Methyl tert-butyl ether	2.0		1.0	0.20	ug/L			05/13/21 19:21	1
1,2,4-Trimethylbenzene	13		5.0	1.0	ug/L			05/13/21 19:21	1
Isopropylbenzene	100		5.0	0.20	ug/L			05/13/21 19:21	1
t-Butyl alcohol	180		50	12	ug/L			05/13/21 19:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*80 - 120*		*05/13/21 19:21*	*1*

Client Sample ID: DUP-8_20210510

Date Collected: 05/10/21 00:00
Date Received: 05/11/21 17:10

Lab Sample ID: 410-39343-2

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*05/13/21 19:21*	*1*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*05/13/21 19:21*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*05/13/21 19:21*	*1*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**370**		10	2.0	ug/L			05/17/21 17:03	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*80 - 120*		*05/17/21 17:03*	*10*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*05/17/21 17:03*	*10*
Dibromofluoromethane (Surr)	*107*		*80 - 120*		*05/17/21 17:03*	*10*
Toluene-d8 (Surr)	*110*		*80 - 120*		*05/17/21 17:03*	*10*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**0.12**	**J**	0.50	0.10	ug/L		05/17/21 17:00	05/19/21 20:16	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/17/21 17:00	05/19/21 20:16	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/17/21 17:00	05/19/21 20:16	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/17/21 17:00	05/19/21 20:16	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/17/21 17:00	05/19/21 20:16	1
Chrysene	ND		0.50	0.10	ug/L		05/17/21 17:00	05/19/21 20:16	1
Fluorene	**2.1**		0.50	0.12	ug/L		05/17/21 17:00	05/19/21 20:16	1
Naphthalene	ND		0.50	0.10	ug/L		05/17/21 17:00	05/19/21 20:16	1
Phenanthrene	**1.3**		0.50	0.11	ug/L		05/17/21 17:00	05/19/21 20:16	1
Pyrene	ND		0.50	0.10	ug/L		05/17/21 17:00	05/19/21 20:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*76*		*35 - 100*	*05/17/21 17:00*	*05/19/21 20:16*	*1*
Nitrobenzene-d5 (Surr)	*72*		*22 - 117*	*05/17/21 17:00*	*05/19/21 20:16*	*1*
p-Terphenyl-d14 (Surr)	*82*		*31 - 119*	*05/17/21 17:00*	*05/19/21 20:16*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/12/21 08:06	05/12/21 19:57	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/12/21 08:06	05/12/21 19:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*89*		*28 - 140*	*05/12/21 08:06*	*05/12/21 19:57*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**21000**		1000	600	ug/L		05/13/21 08:34	05/13/21 14:15	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*102*		*28 - 140*	*05/13/21 08:34*	*05/13/21 14:15*	*200*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.028	0.0094	ug/L		05/15/21 09:16	05/17/21 13:30	1

Client Sample ID: DUP-8_20210510

Lab Sample ID: 410-39343-2

Date Collected: 05/10/21 00:00

Matrix: Water

Date Received: 05/11/21 17:10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*99*		*46 - 136*	*05/15/21 09:16*	*05/17/21 13:30*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*101*		*46 - 136*	*05/15/21 09:16*	*05/17/21 13:30*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND	^c	5000	1500	ug/L			05/12/21 17:58	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**41000**		500	96	ug/L		05/12/21 14:21	05/14/21 14:42	1
Iron	**51000**		200	40	ug/L		05/12/21 14:21	05/17/21 16:11	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.76**		0.52	0.073	ug/L		05/12/21 15:31	05/13/21 18:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**280000**		8000	8000	ug/L			05/13/21 06:56	1
Total Kjeldahl Nitrogen	**1600**		1000	500	ug/L		05/13/21 14:24	05/20/21 11:49	1
Total Carbon	**83000**		10000	5000	ug/L			05/18/21 19:36	10
Total Organic Carbon	**13000**		2000	1000	ug/L			05/14/21 02:37	2
Total Inorganic Carbon	**70000**		2000	600	ug/L			05/21/21 10:54	1

Client Sample ID: C-106_SL_20210510

Lab Sample ID: 410-39343-3

Date Collected: 05/10/21 10:05

Matrix: Water

Date Received: 05/11/21 17:10

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/13/21 19:45	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/13/21 19:45	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/13/21 19:45	1
Toluene	**0.68**	**J**	1.0	0.20	ug/L			05/13/21 19:45	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/13/21 19:45	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/13/21 19:45	1
Benzene	**1.1**		1.0	0.20	ug/L			05/13/21 19:45	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/13/21 19:45	1
Isopropylbenzene	**0.44**	**J**	5.0	0.20	ug/L			05/13/21 19:45	1
t-Butyl alcohol	ND		50	12	ug/L			05/13/21 19:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*80 - 120*		*05/13/21 19:45*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*05/13/21 19:45*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 120*		*05/13/21 19:45*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/13/21 19:45*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**0.23**	**J**	0.51	0.10	ug/L		05/17/21 17:00	05/19/21 20:45	1
Benzo[a]anthracene	ND		0.51	0.10	ug/L		05/17/21 17:00	05/19/21 20:45	1
Benzo[a]pyrene	ND		0.51	0.11	ug/L		05/17/21 17:00	05/19/21 20:45	1

Client Sample ID: C-106_SL_20210510
Date Collected: 05/10/21 10:05
Date Received: 05/11/21 17:10

Lab Sample ID: 410-39343-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	ND		0.51	0.10	ug/L		05/17/21 17:00	05/19/21 20:45	1
Benzo[g,h,i]perylene	ND		0.51	0.10	ug/L		05/17/21 17:00	05/19/21 20:45	1
Chrysene	ND		0.51	0.10	ug/L		05/17/21 17:00	05/19/21 20:45	1
Fluorene	**0.62**		0.51	0.12	ug/L		05/17/21 17:00	05/19/21 20:45	1
Naphthalene	ND		0.51	0.10	ug/L		05/17/21 17:00	05/19/21 20:45	1
Phenanthrene	**0.79**		0.51	0.11	ug/L		05/17/21 17:00	05/19/21 20:45	1
Pyrene	**0.42**	**J**	0.51	0.10	ug/L		05/17/21 17:00	05/19/21 20:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*69*		*35 - 100*	*05/17/21 17:00*	*05/19/21 20:45*	*1*
Nitrobenzene-d5 (Surr)	*79*		*22 - 117*	*05/17/21 17:00*	*05/19/21 20:45*	*1*
p-Terphenyl-d14 (Surr)	*79*		*31 - 119*	*05/17/21 17:00*	*05/19/21 20:45*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**1.5**	**J**	5.0	1.0	ug/L		05/12/21 08:06	05/12/21 20:16	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/12/21 08:06	05/12/21 20:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*86*		*28 - 140*	*05/12/21 08:06*	*05/12/21 20:16*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**21000**		1000	600	ug/L		05/13/21 08:34	05/13/21 14:34	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*100*		*28 - 140*	*05/13/21 08:34*	*05/13/21 14:34*	*200*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.028	0.0094	ug/L		05/15/21 09:16	05/17/21 13:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*104*		*46 - 136*	*05/15/21 09:16*	*05/17/21 13:47*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*107*		*46 - 136*	*05/15/21 09:16*	*05/17/21 13:47*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND	^c	5000	1500	ug/L			05/12/21 18:18	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**71000**		500	96	ug/L		05/12/21 14:21	05/14/21 14:39	1
Iron	**14000**		200	40	ug/L		05/12/21 14:21	05/17/21 16:08	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/12/21 15:31	05/13/21 18:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**340000**		8000	8000	ug/L			05/13/21 07:20	1

Client Sample ID: C-106_SL_20210510

Lab Sample ID: 410-39343-3

Date Collected: 05/10/21 10:05

Matrix: Water

Date Received: 05/11/21 17:10

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	**3400**		1000	500	ug/L		05/13/21 14:24	05/20/21 11:53	1
Total Carbon	**78000**		10000	5000	ug/L			05/18/21 19:47	10
Total Organic Carbon	**7700**		2000	1000	ug/L			05/14/21 04:47	2
Total Inorganic Carbon	**70000**		2000	600	ug/L			05/21/21 10:54	1

Client Sample ID: RW-703_20210510

Lab Sample ID: 410-39343-4

Date Collected: 05/10/21 11:10

Matrix: Water

Date Received: 05/11/21 17:10

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**140**		5.0	2.0	ug/L			05/13/21 22:55	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			05/13/21 22:55	5
1,3,5-Trimethylbenzene	**250**		25	1.5	ug/L			05/13/21 22:55	5
Toluene	**82**		5.0	1.0	ug/L			05/13/21 22:55	5
Xylenes, Total	**2000**		30	7.0	ug/L			05/13/21 22:55	5
Methyl tert-butyl ether	ND		5.0	1.0	ug/L			05/13/21 22:55	5
1,2,4-Trimethylbenzene	**410**		25	5.0	ug/L			05/13/21 22:55	5
Isopropylbenzene	**3.9**	**J**	25	1.0	ug/L			05/13/21 22:55	5
t-Butyl alcohol	**63**	**J**	250	60	ug/L			05/13/21 22:55	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*80 - 120*		*05/13/21 22:55*	*5*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*05/13/21 22:55*	*5*
Dibromofluoromethane (Surr)	*100*		*80 - 120*		*05/13/21 22:55*	*5*
Toluene-d8 (Surr)	*105*		*80 - 120*		*05/13/21 22:55*	*5*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**3800**		50	10	ug/L			05/17/21 17:27	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*80 - 120*		*05/17/21 17:27*	*50*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*05/17/21 17:27*	*50*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*05/17/21 17:27*	*50*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/17/21 17:27*	*50*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**2.0**		0.55	0.11	ug/L		05/17/21 17:00	05/19/21 21:14	1
Benzo[a]anthracene	ND		0.55	0.11	ug/L		05/17/21 17:00	05/19/21 21:14	1
Benzo[a]pyrene	ND		0.55	0.12	ug/L		05/17/21 17:00	05/19/21 21:14	1
Benzo[b]fluoranthene	ND		0.55	0.11	ug/L		05/17/21 17:00	05/19/21 21:14	1
Benzo[g,h,i]perylene	ND		0.55	0.11	ug/L		05/17/21 17:00	05/19/21 21:14	1
Chrysene	ND		0.55	0.11	ug/L		05/17/21 17:00	05/19/21 21:14	1
Fluorene	**4.2**		0.55	0.13	ug/L		05/17/21 17:00	05/19/21 21:14	1
Naphthalene	**34**		0.55	0.11	ug/L		05/17/21 17:00	05/19/21 21:14	1
Phenanthrene	**5.6**		0.55	0.12	ug/L		05/17/21 17:00	05/19/21 21:14	1
Pyrene	**0.81**		0.55	0.11	ug/L		05/17/21 17:00	05/19/21 21:14	1

Client Sample ID: RW-703_20210510
Date Collected: 05/10/21 11:10
Date Received: 05/11/21 17:10

Lab Sample ID: 410-39343-4
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*59*		*35 - 100*	*05/17/21 17:00*	*05/19/21 21:14*	*1*
Nitrobenzene-d5 (Surr)	*76*		*22 - 117*	*05/17/21 17:00*	*05/19/21 21:14*	*1*
p-Terphenyl-d14 (Surr)	*72*		*31 - 119*	*05/17/21 17:00*	*05/19/21 21:14*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**1.0**	**J**	5.0	1.0	ug/L		05/12/21 08:06	05/12/21 20:35	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/12/21 08:06	05/12/21 20:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*93*		*28 - 140*	*05/12/21 08:06*	*05/12/21 20:35*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**15000**		500	300	ug/L		05/13/21 08:34	05/13/21 14:52	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*101*		*28 - 140*	*05/13/21 08:34*	*05/13/21 14:52*	*100*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (2C)	ND		0.029	0.0096	ug/L		05/15/21 09:16	05/17/21 14:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*144*	*S1+*	*46 - 136*	*05/15/21 09:16*	*05/17/21 14:04*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*161*	*S1+*	*46 - 136*	*05/15/21 09:16*	*05/17/21 14:04*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND	^c	5000	1500	ug/L			05/12/21 18:39	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**47000**		500	96	ug/L		05/12/21 14:21	05/14/21 13:51	1
Iron	**49000**		200	40	ug/L		05/12/21 14:21	05/17/21 15:17	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/12/21 15:31	05/13/21 18:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**270000**		8000	8000	ug/L			05/13/21 06:35	1
Total Kjeldahl Nitrogen	**4300**		1000	500	ug/L		05/13/21 14:24	05/20/21 13:32	1
Total Carbon	**87000**		10000	5000	ug/L			05/18/21 19:57	10
Total Organic Carbon	**23000**		2000	1000	ug/L			05/14/21 05:03	2
Total Inorganic Carbon	**64000**		2000	600	ug/L			05/21/21 10:54	1

Client Sample ID: RW-701_20210510
Date Collected: 05/10/21 12:25
Date Received: 05/11/21 17:10

Lab Sample ID: 410-39343-5
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**0.93**	**J**	1.0	0.40	ug/L			05/13/21 20:08	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/13/21 20:08	1
1,3,5-Trimethylbenzene	**34**		5.0	0.30	ug/L			05/13/21 20:08	1
Toluene	**2.4**		1.0	0.20	ug/L			05/13/21 20:08	1
Xylenes, Total	**56**		6.0	1.4	ug/L			05/13/21 20:08	1
Methyl tert-butyl ether	**0.44**	**J**	1.0	0.20	ug/L			05/13/21 20:08	1
Benzene	**26**		1.0	0.20	ug/L			05/13/21 20:08	1
1,2,4-Trimethylbenzene	**6.3**		5.0	1.0	ug/L			05/13/21 20:08	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/13/21 20:08	1
t-Butyl alcohol	ND		50	12	ug/L			05/13/21 20:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*		*05/13/21 20:08*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*05/13/21 20:08*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*05/13/21 20:08*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*05/13/21 20:08*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.58	0.12	ug/L		05/17/21 17:00	05/19/21 21:43	1
Benzo[a]anthracene	ND		0.58	0.12	ug/L		05/17/21 17:00	05/19/21 21:43	1
Benzo[a]pyrene	ND		0.58	0.13	ug/L		05/17/21 17:00	05/19/21 21:43	1
Benzo[b]fluoranthene	ND		0.58	0.12	ug/L		05/17/21 17:00	05/19/21 21:43	1
Benzo[g,h,i]perylene	ND		0.58	0.12	ug/L		05/17/21 17:00	05/19/21 21:43	1
Chrysene	ND		0.58	0.12	ug/L		05/17/21 17:00	05/19/21 21:43	1
Fluorene	ND		0.58	0.14	ug/L		05/17/21 17:00	05/19/21 21:43	1
Naphthalene	ND		0.58	0.12	ug/L		05/17/21 17:00	05/19/21 21:43	1
Phenanthrene	ND		0.58	0.13	ug/L		05/17/21 17:00	05/19/21 21:43	1
Pyrene	ND		0.58	0.12	ug/L		05/17/21 17:00	05/19/21 21:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*70*		*35 - 100*	*05/17/21 17:00*	*05/19/21 21:43*	*1*
Nitrobenzene-d5 (Surr)	*84*		*22 - 117*	*05/17/21 17:00*	*05/19/21 21:43*	*1*
p-Terphenyl-d14 (Surr)	*76*		*31 - 119*	*05/17/21 17:00*	*05/19/21 21:43*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/12/21 08:06	05/12/21 20:54	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/12/21 08:06	05/12/21 20:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*91*		*28 - 140*	*05/12/21 08:06*	*05/12/21 20:54*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**3900**		100	60	ug/L		05/13/21 08:34	05/13/21 15:11	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*102*		*28 - 140*	*05/13/21 08:34*	*05/13/21 15:11*	*20*

Client Sample ID: RW-701_20210510

Lab Sample ID: 410-39343-5

Date Collected: 05/10/21 12:25

Matrix: Water

Date Received: 05/11/21 17:10

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.028	0.0093	ug/L		05/15/21 09:16	05/17/21 14:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*135*		*46 - 136*	*05/15/21 09:16*	*05/17/21 14:21*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*133*		*46 - 136*	*05/15/21 09:16*	*05/17/21 14:21*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			05/12/21 19:19	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**49000**		500	96	ug/L		05/12/21 14:21	05/14/21 14:32	1
Iron	**6200**		200	40	ug/L		05/12/21 14:21	05/17/21 16:01	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.26**	**J**	0.52	0.073	ug/L		05/12/21 15:31	05/13/21 18:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**210000**		8000	8000	ug/L			05/13/21 07:32	1
Total Kjeldahl Nitrogen	**950**	**J**	1000	500	ug/L		05/13/21 14:24	05/20/21 13:41	1
Total Carbon	**44000**		10000	5000	ug/L			05/18/21 20:08	10
Total Organic Carbon	**3900**		2000	1000	ug/L			05/14/21 05:19	2
Total Inorganic Carbon	**40000**		2000	600	ug/L			05/21/21 10:54	1

Client Sample ID: RWBH-2_SL_20210510

Lab Sample ID: 410-39343-6

Date Collected: 05/10/21 13:15

Matrix: Water

Date Received: 05/11/21 17:10

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/13/21 20:32	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/13/21 20:32	1
1,3,5-Trimethylbenzene	**0.92**	**J**	5.0	0.30	ug/L			05/13/21 20:32	1
Toluene	**0.41**	**J**	1.0	0.20	ug/L			05/13/21 20:32	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/13/21 20:32	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/13/21 20:32	1
Benzene	**0.34**	**J**	1.0	0.20	ug/L			05/13/21 20:32	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/13/21 20:32	1
Isopropylbenzene	**2.3**	**J**	5.0	0.20	ug/L			05/13/21 20:32	1
t-Butyl alcohol	ND		50	12	ug/L			05/13/21 20:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*80 - 120*		*05/13/21 20:32*	*1*
4-Bromofluorobenzene (Surr)	*90*		*80 - 120*		*05/13/21 20:32*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*05/13/21 20:32*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/13/21 20:32*	*1*

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39343-1

Client Sample ID: RWBH-2_SL_20210510
Date Collected: 05/10/21 13:15
Date Received: 05/11/21 17:10

Lab Sample ID: 410-39343-6
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/17/21 17:00	05/19/21 22:12	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/17/21 17:00	05/19/21 22:12	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/17/21 17:00	05/19/21 22:12	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/17/21 17:00	05/19/21 22:12	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/17/21 17:00	05/19/21 22:12	1
Chrysene	ND		0.50	0.10	ug/L		05/17/21 17:00	05/19/21 22:12	1
Fluorene	**0.22**	**J**	0.50	0.12	ug/L		05/17/21 17:00	05/19/21 22:12	1
Naphthalene	ND		0.50	0.10	ug/L		05/17/21 17:00	05/19/21 22:12	1
Phenanthrene	ND		0.50	0.11	ug/L		05/17/21 17:00	05/19/21 22:12	1
Pyrene	ND		0.50	0.10	ug/L		05/17/21 17:00	05/19/21 22:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*68*		*35 - 100*	*05/17/21 17:00*	*05/19/21 22:12*	*1*
Nitrobenzene-d5 (Surr)	*75*		*22 - 117*	*05/17/21 17:00*	*05/19/21 22:12*	*1*
p-Terphenyl-d14 (Surr)	*79*		*31 - 119*	*05/17/21 17:00*	*05/19/21 22:12*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/12/21 08:06	05/12/21 21:13	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/12/21 08:06	05/12/21 21:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*97*		*28 - 140*	*05/12/21 08:06*	*05/12/21 21:13*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**7600**		250	150	ug/L		05/13/21 08:34	05/13/21 15:30	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*99*		*28 - 140*	*05/13/21 08:34*	*05/13/21 15:30*	*50*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.028	0.0094	ug/L		05/15/21 09:16	05/17/21 14:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*117*		*46 - 136*	*05/15/21 09:16*	*05/17/21 14:37*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*114*		*46 - 136*	*05/15/21 09:16*	*05/17/21 14:37*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			05/12/21 16:32	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**45000**		500	96	ug/L		05/12/21 14:21	05/14/21 14:35	1
Iron	**3700**		200	40	ug/L		05/12/21 14:21	05/17/21 16:05	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.22**	**J**	0.52	0.073	ug/L		05/12/21 15:31	05/13/21 18:34	1

Client Sample ID: RWBH-2_SL_20210510

Lab Sample ID: 410-39343-6

Date Collected: 05/10/21 13:15

Matrix: Water

Date Received: 05/11/21 17:10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	160000		8000	8000	ug/L			05/13/21 07:39	1
Total Kjeldahl Nitrogen	1200		1000	500	ug/L		05/13/21 14:24	05/20/21 13:35	1
Total Carbon	37000		10000	5000	ug/L			05/18/21 20:19	10
Total Organic Carbon	3900		1000	500	ug/L			05/14/21 05:36	1
Total Inorganic Carbon	33000		2000	600	ug/L			05/21/21 10:54	1

Client Sample ID: TB_20210511

Lab Sample ID: 410-39343-7

Date Collected: 05/11/21 00:00

Matrix: Water

Date Received: 05/11/21 17:10

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		1.0	0.20	ug/L			05/13/21 17:22	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/13/21 17:22	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/13/21 17:22	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/13/21 17:22	1
Toluene	ND		1.0	0.20	ug/L			05/13/21 17:22	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/13/21 17:22	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/13/21 17:22	1
Benzene	ND		1.0	0.20	ug/L			05/13/21 17:22	1
Naphthalene	ND		5.0	1.0	ug/L			05/13/21 17:22	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/13/21 17:22	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/13/21 17:22	1
t-Butyl alcohol	ND		50	12	ug/L			05/13/21 17:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*80 - 120*		*05/13/21 17:22*	*1*
4-Bromofluorobenzene (Surr)	*89*		*80 - 120*		*05/13/21 17:22*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 120*		*05/13/21 17:22*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/13/21 17:22*	*1*

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39343-1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-39343-1	S-369_20210510	84	94	102	99
410-39343-1 - DL	S-369_20210510	110	96	110	106
410-39343-2	DUP-8_20210510	86	94	101	104
410-39343-2 - DL	DUP-8_20210510	111	95	107	110
410-39343-3	C-106_SL_20210510	94	96	105	101
410-39343-4	RW-703_20210510	88	92	100	105
410-39343-4 - DL	RW-703_20210510	107	96	102	101
410-39343-5	RW-701_20210510	92	93	104	104
410-39343-6	RWBH-2_SL_20210510	90	90	104	101
410-39343-7	TB_20210511	93	89	106	100
LCS 410-126093/4	Lab Control Sample	92	92	105	103
LCS 410-127001/4	Lab Control Sample	94	92	105	103
LCSD 410-126093/5	Lab Control Sample Dup	92	92	105	102
LCSD 410-127001/5	Lab Control Sample Dup	95	92	106	102
MB 410-126093/6	Method Blank	92	89	107	101
MB 410-127001/6	Method Blank	97	92	108	101

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(35-100)	(22-117)	(31-119)
410-39343-1	S-369_20210510	69	70	88
410-39343-2	DUP-8_20210510	76	72	82
410-39343-3	C-106_SL_20210510	69	79	79
410-39343-4	RW-703_20210510	59	76	72
410-39343-5	RW-701_20210510	70	84	76
410-39343-6	RWBH-2_SL_20210510	68	75	79
LCS 410-126775/2-A	Lab Control Sample	83	83	104
LCS 410-127190/2-A	Lab Control Sample	71	78	99
LCSD 410-127190/3-A	Lab Control Sample Dup	67	82	104
MB 410-126775/1-A	Method Blank	73	72	93
MB 410-127190/1-A	Method Blank	77	83	109

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Surrogate Summary

Client: Stantec Consulting Corp. Job ID: 410-39343-1
Project/Site: Former PES Annual GWS

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	Propene1 (28-140)							
410-39343-1	S-369_20210510	91							
410-39343-1 - DL	S-369_20210510	104							
410-39343-2	DUP-8_20210510	89							
410-39343-2 - DL	DUP-8_20210510	102							
410-39343-3	C-106_SL_20210510	86							
410-39343-3 - DL	C-106_SL_20210510	100							
410-39343-4	RW-703_20210510	93							
410-39343-4 - DL	RW-703_20210510	101							
410-39343-5	RW-701_20210510	91							
410-39343-5 - DL	RW-701_20210510	102							
410-39343-6	RWBH-2_SL_20210510	97							
410-39343-6 - DL	RWBH-2_SL_20210510	99							
LCS 410-125335/2-A	Lab Control Sample	105							
LCS 410-125880/2-A	Lab Control Sample	108							
MB 410-125335/1-A	Method Blank	106							
MB 410-125880/1-A	Method Blank	111							

Surrogate Legend

Propene = Propene

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	1122TCA1 (46-136)	1122TCA2 (46-136)						
410-39343-1	S-369_20210510	114	107						
410-39343-1 MS	S-369_20210510	114	109						
410-39343-2	DUP-8_20210510	99	101						
410-39343-2 DU	DUP-8_20210510	122	112						
410-39343-3	C-106_SL_20210510	104	107						
410-39343-4	RW-703_20210510	144 S1+	161 S1+						
410-39343-5	RW-701_20210510	135	133						
410-39343-6	RWBH-2_SL_20210510	117	114						
LCS 410-126728/2-A	Lab Control Sample	99	101						
LCSD 410-126728/3-A	Lab Control Sample Dup	102	103						
MB 410-126728/1-A	Method Blank	104	102						

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39343-1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-126093/6
Matrix: Water
Analysis Batch: 126093

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		1.0	0.20	ug/L			05/13/21 16:11	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/13/21 16:11	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/13/21 16:11	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/13/21 16:11	1
Toluene	ND		1.0	0.20	ug/L			05/13/21 16:11	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/13/21 16:11	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/13/21 16:11	1
Benzene	ND		1.0	0.20	ug/L			05/13/21 16:11	1
Naphthalene	ND		5.0	1.0	ug/L			05/13/21 16:11	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/13/21 16:11	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/13/21 16:11	1
t-Butyl alcohol	ND		50	12	ug/L			05/13/21 16:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*		*05/13/21 16:11*	*1*
4-Bromofluorobenzene (Surr)	*89*		*80 - 120*		*05/13/21 16:11*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 120*		*05/13/21 16:11*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/13/21 16:11*	*1*

Lab Sample ID: LCS 410-126093/4
Matrix: Water
Analysis Batch: 126093

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylene Dibromide	20.0	18.6		ug/L		93	77 - 120
Ethylbenzene	20.0	18.6		ug/L		93	80 - 120
1,2-Dichloroethane	20.0	17.1		ug/L		85	73 - 124
1,3,5-Trimethylbenzene	20.0	17.8		ug/L		89	75 - 120
Toluene	20.0	19.3		ug/L		97	80 - 120
Xylenes, Total	60.0	57.0		ug/L		95	80 - 120
Methyl tert-butyl ether	20.0	17.1		ug/L		85	69 - 122
Benzene	20.0	19.2		ug/L		96	80 - 120
Naphthalene	20.0	15.7		ug/L		78	53 - 124
1,2,4-Trimethylbenzene	20.0	17.5		ug/L		88	75 - 120
Isopropylbenzene	20.0	19.2		ug/L		96	80 - 120
t-Butyl alcohol	200	184		ug/L		92	60 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*
Dibromofluoromethane (Surr)	*105*		*80 - 120*
Toluene-d8 (Surr)	*103*		*80 - 120*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-126093/5
Matrix: Water
Analysis Batch: 126093

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide			20.0	18.7		ug/L		94	77 - 120	1	30
Ethylbenzene			20.0	19.0		ug/L		95	80 - 120	2	30
1,2-Dichloroethane			20.0	17.4		ug/L		87	73 - 124	2	30
1,3,5-Trimethylbenzene			20.0	17.8		ug/L		89	75 - 120	0	30
Toluene			20.0	19.6		ug/L		98	80 - 120	1	30
Xylenes, Total			60.0	58.2		ug/L		97	80 - 120	2	30
Methyl tert-butyl ether			20.0	16.9		ug/L		85	69 - 122	1	30
Benzene			20.0	19.6		ug/L		98	80 - 120	2	30
Naphthalene			20.0	14.6		ug/L		73	53 - 124	7	30
1,2,4-Trimethylbenzene			20.0	17.6		ug/L		88	75 - 120	1	30
Isopropylbenzene			20.0	19.2		ug/L		96	80 - 120	1	30
t-Butyl alcohol			200	197		ug/L		98	60 - 130	7	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*80 - 120*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*
Dibromofluoromethane (Surr)	*105*		*80 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

Lab Sample ID: MB 410-127001/6
Matrix: Water
Analysis Batch: 127001

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/17/21 11:30	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/17/21 11:30	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/17/21 11:30	1
Toluene	ND		1.0	0.20	ug/L			05/17/21 11:30	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/17/21 11:30	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/17/21 11:30	1
Benzene	ND		1.0	0.20	ug/L			05/17/21 11:30	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/17/21 11:30	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/17/21 11:30	1
t-Butyl alcohol	ND		50	12	ug/L			05/17/21 11:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*80 - 120*		*05/17/21 11:30*	*1*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*05/17/21 11:30*	*1*
Dibromofluoromethane (Surr)	*108*		*80 - 120*		*05/17/21 11:30*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/17/21 11:30*	*1*

Lab Sample ID: LCS 410-127001/4
Matrix: Water
Analysis Batch: 127001

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylbenzene			20.0	20.2		ug/L		101	80 - 120		
1,2-Dichloroethane			20.0	18.7		ug/L		93	73 - 124		

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-127001/4
Matrix: Water
Analysis Batch: 127001

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3,5-Trimethylbenzene	20.0	19.4		ug/L		97	75 - 120
Toluene	20.0	21.1		ug/L		106	80 - 120
Xylenes, Total	60.0	62.2		ug/L		104	80 - 120
Methyl tert-butyl ether	20.0	18.6		ug/L		93	69 - 122
Benzene	20.0	21.1		ug/L		105	80 - 120
1,2,4-Trimethylbenzene	20.0	19.4		ug/L		97	75 - 120
Isopropylbenzene	20.0	21.0		ug/L		105	80 - 120
t-Butyl alcohol	200	207		ug/L		103	60 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*94*		*80 - 120*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*
Dibromofluoromethane (Surr)	*105*		*80 - 120*
Toluene-d8 (Surr)	*103*		*80 - 120*

Lab Sample ID: LCSD 410-127001/5
Matrix: Water
Analysis Batch: 127001

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	20.0	19.9		ug/L		99	80 - 120	2	30
1,2-Dichloroethane	20.0	18.9		ug/L		95	73 - 124	1	30
1,3,5-Trimethylbenzene	20.0	19.1		ug/L		95	75 - 120	2	30
Toluene	20.0	20.5		ug/L		102	80 - 120	3	30
Xylenes, Total	60.0	60.8		ug/L		101	80 - 120	2	30
Methyl tert-butyl ether	20.0	18.3		ug/L		91	69 - 122	2	30
Benzene	20.0	20.7		ug/L		103	80 - 120	2	30
1,2,4-Trimethylbenzene	20.0	19.1		ug/L		95	75 - 120	2	30
Isopropylbenzene	20.0	20.7		ug/L		104	80 - 120	2	30
t-Butyl alcohol	200	208		ug/L		104	60 - 130	0	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*80 - 120*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*
Dibromofluoromethane (Surr)	*106*		*80 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-126775/1-A
Matrix: Water
Analysis Batch: 127308

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 126775

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/16/21 02:14	05/17/21 23:45	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/16/21 02:14	05/17/21 23:45	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/16/21 02:14	05/17/21 23:45	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/16/21 02:14	05/17/21 23:45	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-126775/1-A
Matrix: Water
Analysis Batch: 127308

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 126775

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/16/21 02:14	05/17/21 23:45	1
Chrysene	ND		0.50	0.10	ug/L		05/16/21 02:14	05/17/21 23:45	1
Fluorene	ND		0.50	0.12	ug/L		05/16/21 02:14	05/17/21 23:45	1
Naphthalene	ND		0.50	0.10	ug/L		05/16/21 02:14	05/17/21 23:45	1
Phenanthrene	ND		0.50	0.11	ug/L		05/16/21 02:14	05/17/21 23:45	1
Pyrene	ND		0.50	0.10	ug/L		05/16/21 02:14	05/17/21 23:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*73*		*35 - 100*	*05/16/21 02:14*	*05/17/21 23:45*	*1*
Nitrobenzene-d5 (Surr)	*72*		*22 - 117*	*05/16/21 02:14*	*05/17/21 23:45*	*1*
p-Terphenyl-d14 (Surr)	*93*		*31 - 119*	*05/16/21 02:14*	*05/17/21 23:45*	*1*

Lab Sample ID: LCS 410-126775/2-A
Matrix: Water
Analysis Batch: 127308

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 126775

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.0	47.1		ug/L		94	73 - 120
Benzo[a]anthracene	50.0	52.5		ug/L		105	74 - 120
Benzo[a]pyrene	50.0	54.9		ug/L		110	60 - 116
Benzo[b]fluoranthene	50.0	45.9		ug/L		92	71 - 120
Benzo[g,h,i]perylene	50.0	50.3		ug/L		101	60 - 120
Chrysene	50.0	53.1		ug/L		106	76 - 120
Fluorene	50.0	47.3		ug/L		95	64 - 120
Naphthalene	50.0	39.7		ug/L		79	51 - 102
Phenanthrene	50.0	46.6		ug/L		93	72 - 120
Pyrene	50.0	49.9		ug/L		100	73 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*83*		*35 - 100*
Nitrobenzene-d5 (Surr)	*83*		*22 - 117*
p-Terphenyl-d14 (Surr)	*104*		*31 - 119*

Lab Sample ID: MB 410-127190/1-A
Matrix: Water
Analysis Batch: 128178

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 127190

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/17/21 17:00	05/19/21 16:53	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/17/21 17:00	05/19/21 16:53	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/17/21 17:00	05/19/21 16:53	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/17/21 17:00	05/19/21 16:53	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/17/21 17:00	05/19/21 16:53	1
Chrysene	ND		0.50	0.10	ug/L		05/17/21 17:00	05/19/21 16:53	1
Fluorene	ND		0.50	0.12	ug/L		05/17/21 17:00	05/19/21 16:53	1
Naphthalene	ND		0.50	0.10	ug/L		05/17/21 17:00	05/19/21 16:53	1
Phenanthrene	ND		0.50	0.11	ug/L		05/17/21 17:00	05/19/21 16:53	1
Pyrene	ND		0.50	0.10	ug/L		05/17/21 17:00	05/19/21 16:53	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-127190/1-A
Matrix: Water
Analysis Batch: 128178

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 127190

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	77		35 - 100	05/17/21 17:00	05/19/21 16:53	1
Nitrobenzene-d5 (Surr)	83		22 - 117	05/17/21 17:00	05/19/21 16:53	1
p-Terphenyl-d14 (Surr)	109		31 - 119	05/17/21 17:00	05/19/21 16:53	1

Lab Sample ID: LCS 410-127190/2-A
Matrix: Water
Analysis Batch: 128178

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 127190

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.0	45.2		ug/L		90	73 - 120
Benzo[a]anthracene	50.0	49.8		ug/L		100	74 - 120
Benzo[a]pyrene	50.0	51.7		ug/L		103	60 - 116
Benzo[b]fluoranthene	50.0	44.1		ug/L		88	71 - 120
Benzo[g,h,i]perylene	50.0	48.2		ug/L		96	60 - 120
Chrysene	50.0	50.4		ug/L		101	76 - 120
Fluorene	50.0	45.4		ug/L		91	64 - 120
Naphthalene	50.0	35.1		ug/L		70	51 - 102
Phenanthrene	50.0	45.7		ug/L		91	72 - 120
Pyrene	50.0	47.8		ug/L		96	73 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	71		35 - 100
Nitrobenzene-d5 (Surr)	78		22 - 117
p-Terphenyl-d14 (Surr)	99		31 - 119

Lab Sample ID: LCSD 410-127190/3-A
Matrix: Water
Analysis Batch: 128178

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 127190

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Anthracene	50.0	46.6		ug/L		93	73 - 120	3	30
Benzo[a]anthracene	50.0	52.2		ug/L		104	74 - 120	5	30
Benzo[a]pyrene	50.0	54.4		ug/L		109	60 - 116	5	30
Benzo[b]fluoranthene	50.0	46.8		ug/L		94	71 - 120	6	30
Benzo[g,h,i]perylene	50.0	49.9		ug/L		100	60 - 120	4	30
Chrysene	50.0	53.7		ug/L		107	76 - 120	6	30
Fluorene	50.0	45.3		ug/L		91	64 - 120	0	30
Naphthalene	50.0	34.9		ug/L		70	51 - 102	1	30
Phenanthrene	50.0	46.9		ug/L		94	72 - 120	2	30
Pyrene	50.0	48.8		ug/L		98	73 - 120	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	67		35 - 100
Nitrobenzene-d5 (Surr)	82		22 - 117
p-Terphenyl-d14 (Surr)	104		31 - 119

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-125335/1-A
Matrix: Water
Analysis Batch: 125340

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 125335

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/12/21 08:06	05/12/21 15:35	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/12/21 08:06	05/12/21 15:35	1
Methane (1C)	ND		5.0	3.0	ug/L		05/12/21 08:06	05/12/21 15:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*106*		*28 - 140*	*05/12/21 08:06*	*05/12/21 15:35*	*1*

Lab Sample ID: LCS 410-125335/2-A
Matrix: Water
Analysis Batch: 125340

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 125335

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethane (1C)	59.4	60.4		ug/L		102	85 - 115
Ethene (1C)	60.4	60.6		ug/L		100	83 - 115
Methane (1C)	59.4	62.4		ug/L		105	85 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*105*		*28 - 140*

Lab Sample ID: MB 410-125880/1-A
Matrix: Water
Analysis Batch: 125919

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 125880

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/13/21 08:34	05/13/21 09:18	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/13/21 08:34	05/13/21 09:18	1
Methane (1C)	ND		5.0	3.0	ug/L		05/13/21 08:34	05/13/21 09:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*111*		*28 - 140*	*05/13/21 08:34*	*05/13/21 09:18*	*1*

Lab Sample ID: LCS 410-125880/2-A
Matrix: Water
Analysis Batch: 125919

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 125880

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethane (1C)	59.4	60.3		ug/L		101	85 - 115
Ethene (1C)	60.4	60.8		ug/L		101	83 - 115
Methane (1C)	59.4	62.7		ug/L		106	85 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*108*		*28 - 140*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-126728/1-A
Matrix: Water
Analysis Batch: 126906

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 126728

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		05/15/21 09:16	05/17/21 07:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*104*		*46 - 136*	*05/15/21 09:16*	*05/17/21 07:17*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*102*		*46 - 136*	*05/15/21 09:16*	*05/17/21 07:17*	*1*

Lab Sample ID: LCS 410-126728/2-A
Matrix: Water
Analysis Batch: 126906

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 126728

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.154		ug/L		120	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*99*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*101*		*46 - 136*

Lab Sample ID: LCSD 410-126728/3-A
Matrix: Water
Analysis Batch: 126906

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 126728

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.158		ug/L		124	60 - 140	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*102*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*103*		*46 - 136*

Lab Sample ID: 410-39343-1 MS
Matrix: Water
Analysis Batch: 126906

Client Sample ID: S-369_20210510
Prep Type: Total/NA
Prep Batch: 126728

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)	ND		0.119	0.139		ug/L		116	60 - 140		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*114*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*109*		*46 - 136*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: 410-39343-2 DU
Matrix: Water
Analysis Batch: 126906

Client Sample ID: DUP-8_20210510
Prep Type: Total/NA
Prep Batch: 126728

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Ethylene Dibromide (1C)	ND			ND		ug/L				NC	30

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*122*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*112*		*46 - 136*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 410-125607/4
Matrix: Water
Analysis Batch: 125607

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1000	300	ug/L			05/12/21 10:12	1

Lab Sample ID: LCS 410-125607/3
Matrix: Water
Analysis Batch: 125607

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			7500	7890		ug/L		105	90 - 110		

Lab Sample ID: MB 410-125630/4
Matrix: Water
Analysis Batch: 125630

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1000	300	ug/L			05/12/21 12:27	1

Lab Sample ID: LCS 410-125630/3
Matrix: Water
Analysis Batch: 125630

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			7500	7630		ug/L		102	90 - 110		

Lab Sample ID: 410-39343-6 MS
Matrix: Water
Analysis Batch: 125630

Client Sample ID: RWBH-2_SL_20210510
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	ND		25000	27100		ug/L		108	90 - 110		

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 410-39343-6 DU
Matrix: Water
Analysis Batch: 125630

Client Sample ID: RWBH-2_SL_20210510
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfate	ND			ND		ug/L				NC	15

Lab Sample ID: MB 410-126032/4
Matrix: Water
Analysis Batch: 126032

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1000	300	ug/L			05/13/21 12:37	1

Lab Sample ID: LCS 410-126032/3
Matrix: Water
Analysis Batch: 126032

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			7500	7300		ug/L		97	90 - 110		

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-125568/1-A
Matrix: Water
Analysis Batch: 126590

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 125568

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		500	96	ug/L		05/12/21 14:21	05/14/21 13:44	1

Lab Sample ID: MB 410-125568/1-A
Matrix: Water
Analysis Batch: 127245

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 125568

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		200	40	ug/L		05/12/21 14:21	05/17/21 15:10	1

Lab Sample ID: LCS 410-125568/2-A
Matrix: Water
Analysis Batch: 126590

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 125568

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Calcium			400	389	J	ug/L		97	80 - 120		

Lab Sample ID: LCS 410-125568/2-A
Matrix: Water
Analysis Batch: 127245

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 125568

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Iron			400	444		ug/L		111	80 - 120		

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 410-39343-4 MS
Matrix: Water
Analysis Batch: 126590

Client Sample ID: RW-703_20210510
Prep Type: Total Recoverable
Prep Batch: 125568

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	47000		400	45400	4	ug/L		-339	75 - 125

Lab Sample ID: 410-39343-4 MS
Matrix: Water
Analysis Batch: 127245

Client Sample ID: RW-703_20210510
Prep Type: Total Recoverable
Prep Batch: 125568

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	49000		400	46400	4	ug/L		-583	75 - 125

Lab Sample ID: 410-39343-4 MSD
Matrix: Water
Analysis Batch: 126590

Client Sample ID: RW-703_20210510
Prep Type: Total Recoverable
Prep Batch: 125568

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	47000		400	46500	4	ug/L		-51	75 - 125	3	20

Lab Sample ID: 410-39343-4 MSD
Matrix: Water
Analysis Batch: 127245

Client Sample ID: RW-703_20210510
Prep Type: Total Recoverable
Prep Batch: 125568

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	49000		400	49300	4	ug/L		133	75 - 125	6	20

Lab Sample ID: 410-39343-4 DU
Matrix: Water
Analysis Batch: 126590

Client Sample ID: RW-703_20210510
Prep Type: Total Recoverable
Prep Batch: 125568

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Calcium	47000		44500		ug/L		5	20

Lab Sample ID: 410-39343-4 DU
Matrix: Water
Analysis Batch: 127245

Client Sample ID: RW-703_20210510
Prep Type: Total Recoverable
Prep Batch: 125568

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Iron	49000		44700		ug/L		9	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 410-125591/1-A
Matrix: Water
Analysis Batch: 126228

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 125591

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/12/21 15:31	05/13/21 18:16	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 410-125591/2-A
Matrix: Water
Analysis Batch: 126228

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 125591

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			30.0	31.2		ug/L		104	90 - 115		

Lab Sample ID: LCSD 410-125591/3-A
Matrix: Water
Analysis Batch: 126228

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 125591

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead			30.0	31.2		ug/L		104	90 - 115	0	20

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 410-126089/143
Matrix: Water
Analysis Batch: 126089

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8000	8000	ug/L			05/13/21 06:22	1

Lab Sample ID: LCS 410-126089/144
Matrix: Water
Analysis Batch: 126089

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Alkalinity as CaCO3 to pH 4.5			189000	190000		ug/L		100	82 - 106		

Lab Sample ID: 410-39343-4 MS
Matrix: Water
Analysis Batch: 126089

Client Sample ID: RW-703_20210510
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Alkalinity as CaCO3 to pH 4.5	270000		189000	447000		ug/L		94	82 - 106		

Lab Sample ID: 410-39343-2 DU
Matrix: Water
Analysis Batch: 126089

Client Sample ID: DUP-8_20210510
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	280000			283000		ug/L				0.05	5

Lab Sample ID: 410-39343-4 DU
Matrix: Water
Analysis Batch: 126089

Client Sample ID: RW-703_20210510
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	270000			270000		ug/L				0.2	5

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 410-126098/2-A
Matrix: Water
Analysis Batch: 128733

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 126098

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		1000	500	ug/L		05/13/21 14:24	05/20/21 09:34	1

Lab Sample ID: LCS 410-126098/1-A
Matrix: Water
Analysis Batch: 128733

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 126098

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	4000	3610		ug/L		90	90 - 110

Method: 5310 B-2011 - Carbon, Total and Total Inorganic

Lab Sample ID: MB 410-128137/5
Matrix: Water
Analysis Batch: 128137

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Carbon	ND		1000	500	ug/L			05/18/21 18:53	1

Lab Sample ID: LCS 410-128137/4
Matrix: Water
Analysis Batch: 128137

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Carbon	25000	25800		ug/L		103	91 - 115

Lab Sample ID: 410-39343-1 MS
Matrix: Water
Analysis Batch: 128137

Client Sample ID: S-369_20210510
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Carbon	91000		100000	189000		ug/L		98	91 - 115

Lab Sample ID: 410-39343-1 DU
Matrix: Water
Analysis Batch: 128137

Client Sample ID: S-369_20210510
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Carbon	91000		90400		ug/L		0.9	20

Method: 5310C-2011 - Total Organic Carbon/Persulfate - Ultrav

Lab Sample ID: MB 410-126506/37
Matrix: Water
Analysis Batch: 126506

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	500	ug/L			05/14/21 03:42	1

Method: 5310C-2011 - Total Organic Carbon/Persulfate - Ultrav (Continued)

Lab Sample ID: MB 410-126506/5
Matrix: Water
Analysis Batch: 126506

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	500	ug/L			05/13/21 19:03	1

Lab Sample ID: LCS 410-126506/36
Matrix: Water
Analysis Batch: 126506

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	25000	23600		ug/L		94	91 - 113

Lab Sample ID: LCS 410-126506/4
Matrix: Water
Analysis Batch: 126506

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	25000	23400		ug/L		93	91 - 113

GC/MS VOA

Analysis Batch: 126093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39343-1	S-369_20210510	Total/NA	Water	8260C/UST	
410-39343-2	DUP-8_20210510	Total/NA	Water	8260C/UST	
410-39343-3	C-106_SL_20210510	Total/NA	Water	8260C/UST	
410-39343-4	RW-703_20210510	Total/NA	Water	8260C/UST	
410-39343-5	RW-701_20210510	Total/NA	Water	8260C/UST	
410-39343-6	RWBH-2_SL_20210510	Total/NA	Water	8260C/UST	
410-39343-7	TB_20210511	Total/NA	Water	8260C/UST	
MB 410-126093/6	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-126093/4	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-126093/5	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

Analysis Batch: 127001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39343-1 - DL	S-369_20210510	Total/NA	Water	8260C/UST	
410-39343-2 - DL	DUP-8_20210510	Total/NA	Water	8260C/UST	
410-39343-4 - DL	RW-703_20210510	Total/NA	Water	8260C/UST	
MB 410-127001/6	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-127001/4	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-127001/5	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

GC/MS Semi VOA

Prep Batch: 126775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39343-1	S-369_20210510	Total/NA	Water	3510C	
MB 410-126775/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-126775/2-A	Lab Control Sample	Total/NA	Water	3510C	

Prep Batch: 127190

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39343-2	DUP-8_20210510	Total/NA	Water	3510C	
410-39343-3	C-106_SL_20210510	Total/NA	Water	3510C	
410-39343-4	RW-703_20210510	Total/NA	Water	3510C	
410-39343-5	RW-701_20210510	Total/NA	Water	3510C	
410-39343-6	RWBH-2_SL_20210510	Total/NA	Water	3510C	
MB 410-127190/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-127190/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-127190/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 127308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39343-1	S-369_20210510	Total/NA	Water	8270D	126775
MB 410-126775/1-A	Method Blank	Total/NA	Water	8270D	126775
LCS 410-126775/2-A	Lab Control Sample	Total/NA	Water	8270D	126775

Analysis Batch: 128178

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39343-2	DUP-8_20210510	Total/NA	Water	8270D	127190
410-39343-3	C-106_SL_20210510	Total/NA	Water	8270D	127190
410-39343-4	RW-703_20210510	Total/NA	Water	8270D	127190
410-39343-5	RW-701_20210510	Total/NA	Water	8270D	127190

GC/MS Semi VOA (Continued)

Analysis Batch: 128178 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39343-6	RWBH-2_SL_20210510	Total/NA	Water	8270D	127190
MB 410-127190/1-A	Method Blank	Total/NA	Water	8270D	127190
LCS 410-127190/2-A	Lab Control Sample	Total/NA	Water	8270D	127190
LCSD 410-127190/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	127190

GC VOA

Prep Batch: 125335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39343-1	S-369_20210510	Total/NA	Water	RSK-175	
410-39343-2	DUP-8_20210510	Total/NA	Water	RSK-175	
410-39343-3	C-106_SL_20210510	Total/NA	Water	RSK-175	
410-39343-4	RW-703_20210510	Total/NA	Water	RSK-175	
410-39343-5	RW-701_20210510	Total/NA	Water	RSK-175	
410-39343-6	RWBH-2_SL_20210510	Total/NA	Water	RSK-175	
MB 410-125335/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-125335/2-A	Lab Control Sample	Total/NA	Water	RSK-175	

Analysis Batch: 125340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39343-1	S-369_20210510	Total/NA	Water	RSK-175	125335
410-39343-2	DUP-8_20210510	Total/NA	Water	RSK-175	125335
410-39343-3	C-106_SL_20210510	Total/NA	Water	RSK-175	125335
410-39343-4	RW-703_20210510	Total/NA	Water	RSK-175	125335
410-39343-5	RW-701_20210510	Total/NA	Water	RSK-175	125335
410-39343-6	RWBH-2_SL_20210510	Total/NA	Water	RSK-175	125335
MB 410-125335/1-A	Method Blank	Total/NA	Water	RSK-175	125335
LCS 410-125335/2-A	Lab Control Sample	Total/NA	Water	RSK-175	125335

Prep Batch: 125880

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39343-1 - DL	S-369_20210510	Total/NA	Water	RSK-175	
410-39343-2 - DL	DUP-8_20210510	Total/NA	Water	RSK-175	
410-39343-3 - DL	C-106_SL_20210510	Total/NA	Water	RSK-175	
410-39343-4 - DL	RW-703_20210510	Total/NA	Water	RSK-175	
410-39343-5 - DL	RW-701_20210510	Total/NA	Water	RSK-175	
410-39343-6 - DL	RWBH-2_SL_20210510	Total/NA	Water	RSK-175	
MB 410-125880/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-125880/2-A	Lab Control Sample	Total/NA	Water	RSK-175	

Analysis Batch: 125919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39343-1 - DL	S-369_20210510	Total/NA	Water	RSK-175	125880
410-39343-2 - DL	DUP-8_20210510	Total/NA	Water	RSK-175	125880
410-39343-3 - DL	C-106_SL_20210510	Total/NA	Water	RSK-175	125880
410-39343-4 - DL	RW-703_20210510	Total/NA	Water	RSK-175	125880
410-39343-5 - DL	RW-701_20210510	Total/NA	Water	RSK-175	125880
410-39343-6 - DL	RWBH-2_SL_20210510	Total/NA	Water	RSK-175	125880
MB 410-125880/1-A	Method Blank	Total/NA	Water	RSK-175	125880
LCS 410-125880/2-A	Lab Control Sample	Total/NA	Water	RSK-175	125880

GC Semi VOA

Prep Batch: 126728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39343-1	S-369_20210510	Total/NA	Water	8011	
410-39343-2	DUP-8_20210510	Total/NA	Water	8011	
410-39343-3	C-106_SL_20210510	Total/NA	Water	8011	
410-39343-4	RW-703_20210510	Total/NA	Water	8011	
410-39343-5	RW-701_20210510	Total/NA	Water	8011	
410-39343-6	RWBH-2_SL_20210510	Total/NA	Water	8011	
MB 410-126728/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-126728/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-126728/3-A	Lab Control Sample Dup	Total/NA	Water	8011	
410-39343-1 MS	S-369_20210510	Total/NA	Water	8011	
410-39343-2 DU	DUP-8_20210510	Total/NA	Water	8011	

Analysis Batch: 126906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39343-1	S-369_20210510	Total/NA	Water	8011	126728
410-39343-2	DUP-8_20210510	Total/NA	Water	8011	126728
410-39343-3	C-106_SL_20210510	Total/NA	Water	8011	126728
410-39343-4	RW-703_20210510	Total/NA	Water	8011	126728
410-39343-5	RW-701_20210510	Total/NA	Water	8011	126728
410-39343-6	RWBH-2_SL_20210510	Total/NA	Water	8011	126728
MB 410-126728/1-A	Method Blank	Total/NA	Water	8011	126728
LCS 410-126728/2-A	Lab Control Sample	Total/NA	Water	8011	126728
LCSD 410-126728/3-A	Lab Control Sample Dup	Total/NA	Water	8011	126728
410-39343-1 MS	S-369_20210510	Total/NA	Water	8011	126728
410-39343-2 DU	DUP-8_20210510	Total/NA	Water	8011	126728

HPLC/IC

Analysis Batch: 125607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39343-2	DUP-8_20210510	Total/NA	Water	EPA 300.0 R2.1	
410-39343-3	C-106_SL_20210510	Total/NA	Water	EPA 300.0 R2.1	
410-39343-4	RW-703_20210510	Total/NA	Water	EPA 300.0 R2.1	
MB 410-125607/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-125607/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 125630

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39343-5	RW-701_20210510	Total/NA	Water	EPA 300.0 R2.1	
410-39343-6	RWBH-2_SL_20210510	Total/NA	Water	EPA 300.0 R2.1	
MB 410-125630/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-125630/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
410-39343-6 MS	RWBH-2_SL_20210510	Total/NA	Water	EPA 300.0 R2.1	
410-39343-6 DU	RWBH-2_SL_20210510	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 126032

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39343-1	S-369_20210510	Total/NA	Water	EPA 300.0 R2.1	
MB 410-126032/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-126032/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 125568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39343-1	S-369_20210510	Total Recoverable	Water	3005A	
410-39343-2	DUP-8_20210510	Total Recoverable	Water	3005A	
410-39343-3	C-106_SL_20210510	Total Recoverable	Water	3005A	
410-39343-4	RW-703_20210510	Total Recoverable	Water	3005A	
410-39343-5	RW-701_20210510	Total Recoverable	Water	3005A	
410-39343-6	RWBH-2_SL_20210510	Total Recoverable	Water	3005A	
MB 410-125568/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-125568/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
410-39343-4 MS	RW-703_20210510	Total Recoverable	Water	3005A	
410-39343-4 MSD	RW-703_20210510	Total Recoverable	Water	3005A	
410-39343-4 DU	RW-703_20210510	Total Recoverable	Water	3005A	

Prep Batch: 125591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39343-1	S-369_20210510	Dissolved	Water	Non-Digest Prep	
410-39343-2	DUP-8_20210510	Dissolved	Water	Non-Digest Prep	
410-39343-3	C-106_SL_20210510	Dissolved	Water	Non-Digest Prep	
410-39343-4	RW-703_20210510	Dissolved	Water	Non-Digest Prep	
410-39343-5	RW-701_20210510	Dissolved	Water	Non-Digest Prep	
410-39343-6	RWBH-2_SL_20210510	Dissolved	Water	Non-Digest Prep	
MB 410-125591/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-125591/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	
LCSD 410-125591/3-A	Lab Control Sample Dup	Total/NA	Water	Non-Digest Prep	

Analysis Batch: 126228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39343-1	S-369_20210510	Dissolved	Water	6020A	125591
410-39343-2	DUP-8_20210510	Dissolved	Water	6020A	125591
410-39343-3	C-106_SL_20210510	Dissolved	Water	6020A	125591
410-39343-4	RW-703_20210510	Dissolved	Water	6020A	125591
410-39343-5	RW-701_20210510	Dissolved	Water	6020A	125591
410-39343-6	RWBH-2_SL_20210510	Dissolved	Water	6020A	125591
MB 410-125591/1-A	Method Blank	Total/NA	Water	6020A	125591
LCS 410-125591/2-A	Lab Control Sample	Total/NA	Water	6020A	125591
LCSD 410-125591/3-A	Lab Control Sample Dup	Total/NA	Water	6020A	125591

Analysis Batch: 126590

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39343-1	S-369_20210510	Total Recoverable	Water	6010C	125568
410-39343-2	DUP-8_20210510	Total Recoverable	Water	6010C	125568
410-39343-3	C-106_SL_20210510	Total Recoverable	Water	6010C	125568
410-39343-4	RW-703_20210510	Total Recoverable	Water	6010C	125568
410-39343-5	RW-701_20210510	Total Recoverable	Water	6010C	125568
410-39343-6	RWBH-2_SL_20210510	Total Recoverable	Water	6010C	125568
MB 410-125568/1-A	Method Blank	Total Recoverable	Water	6010C	125568
LCS 410-125568/2-A	Lab Control Sample	Total Recoverable	Water	6010C	125568
410-39343-4 MS	RW-703_20210510	Total Recoverable	Water	6010C	125568
410-39343-4 MSD	RW-703_20210510	Total Recoverable	Water	6010C	125568
410-39343-4 DU	RW-703_20210510	Total Recoverable	Water	6010C	125568

Metals

Analysis Batch: 127245

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39343-1	S-369_20210510	Total Recoverable	Water	6010C	125568
410-39343-2	DUP-8_20210510	Total Recoverable	Water	6010C	125568
410-39343-3	C-106_SL_20210510	Total Recoverable	Water	6010C	125568
410-39343-4	RW-703_20210510	Total Recoverable	Water	6010C	125568
410-39343-5	RW-701_20210510	Total Recoverable	Water	6010C	125568
410-39343-6	RWBH-2_SL_20210510	Total Recoverable	Water	6010C	125568
MB 410-125568/1-A	Method Blank	Total Recoverable	Water	6010C	125568
LCS 410-125568/2-A	Lab Control Sample	Total Recoverable	Water	6010C	125568
410-39343-4 MS	RW-703_20210510	Total Recoverable	Water	6010C	125568
410-39343-4 MSD	RW-703_20210510	Total Recoverable	Water	6010C	125568
410-39343-4 DU	RW-703_20210510	Total Recoverable	Water	6010C	125568

General Chemistry

Analysis Batch: 126089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39343-1	S-369_20210510	Total/NA	Water	2320B-2011	
410-39343-2	DUP-8_20210510	Total/NA	Water	2320B-2011	
410-39343-3	C-106_SL_20210510	Total/NA	Water	2320B-2011	
410-39343-4	RW-703_20210510	Total/NA	Water	2320B-2011	
410-39343-5	RW-701_20210510	Total/NA	Water	2320B-2011	
410-39343-6	RWBH-2_SL_20210510	Total/NA	Water	2320B-2011	
MB 410-126089/143	Method Blank	Total/NA	Water	2320B-2011	
LCS 410-126089/144	Lab Control Sample	Total/NA	Water	2320B-2011	
410-39343-4 MS	RW-703_20210510	Total/NA	Water	2320B-2011	
410-39343-2 DU	DUP-8_20210510	Total/NA	Water	2320B-2011	
410-39343-4 DU	RW-703_20210510	Total/NA	Water	2320B-2011	

Prep Batch: 126098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39343-1	S-369_20210510	Total/NA	Water	351.2	
410-39343-2	DUP-8_20210510	Total/NA	Water	351.2	
410-39343-3	C-106_SL_20210510	Total/NA	Water	351.2	
410-39343-4	RW-703_20210510	Total/NA	Water	351.2	
410-39343-5	RW-701_20210510	Total/NA	Water	351.2	
410-39343-6	RWBH-2_SL_20210510	Total/NA	Water	351.2	
MB 410-126098/2-A	Method Blank	Total/NA	Water	351.2	
LCS 410-126098/1-A	Lab Control Sample	Total/NA	Water	351.2	

Analysis Batch: 126506

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39343-1	S-369_20210510	Total/NA	Water	5310C-2011	
410-39343-2	DUP-8_20210510	Total/NA	Water	5310C-2011	
410-39343-3	C-106_SL_20210510	Total/NA	Water	5310C-2011	
410-39343-4	RW-703_20210510	Total/NA	Water	5310C-2011	
410-39343-5	RW-701_20210510	Total/NA	Water	5310C-2011	
410-39343-6	RWBH-2_SL_20210510	Total/NA	Water	5310C-2011	
MB 410-126506/37	Method Blank	Total/NA	Water	5310C-2011	
MB 410-126506/5	Method Blank	Total/NA	Water	5310C-2011	
LCS 410-126506/36	Lab Control Sample	Total/NA	Water	5310C-2011	
LCS 410-126506/4	Lab Control Sample	Total/NA	Water	5310C-2011	

General Chemistry

Analysis Batch: 128137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39343-1	S-369_20210510	Total/NA	Water	5310 B-2011	
410-39343-2	DUP-8_20210510	Total/NA	Water	5310 B-2011	
410-39343-3	C-106_SL_20210510	Total/NA	Water	5310 B-2011	
410-39343-4	RW-703_20210510	Total/NA	Water	5310 B-2011	
410-39343-5	RW-701_20210510	Total/NA	Water	5310 B-2011	
410-39343-6	RWBH-2_SL_20210510	Total/NA	Water	5310 B-2011	
MB 410-128137/5	Method Blank	Total/NA	Water	5310 B-2011	
LCS 410-128137/4	Lab Control Sample	Total/NA	Water	5310 B-2011	
410-39343-1 MS	S-369_20210510	Total/NA	Water	5310 B-2011	
410-39343-1 DU	S-369_20210510	Total/NA	Water	5310 B-2011	

Analysis Batch: 128733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-126098/2-A	Method Blank	Total/NA	Water	351.2	126098
LCS 410-126098/1-A	Lab Control Sample	Total/NA	Water	351.2	126098

Analysis Batch: 128776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39343-1	S-369_20210510	Total/NA	Water	351.2	126098
410-39343-2	DUP-8_20210510	Total/NA	Water	351.2	126098
410-39343-3	C-106_SL_20210510	Total/NA	Water	351.2	126098

Analysis Batch: 128868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39343-4	RW-703_20210510	Total/NA	Water	351.2	126098
410-39343-5	RW-701_20210510	Total/NA	Water	351.2	126098
410-39343-6	RWBH-2_SL_20210510	Total/NA	Water	351.2	126098

Analysis Batch: 129241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39343-1	S-369_20210510	Total/NA	Water	SM5310C	
410-39343-2	DUP-8_20210510	Total/NA	Water	SM5310C	
410-39343-3	C-106_SL_20210510	Total/NA	Water	SM5310C	
410-39343-4	RW-703_20210510	Total/NA	Water	SM5310C	
410-39343-5	RW-701_20210510	Total/NA	Water	SM5310C	
410-39343-6	RWBH-2_SL_20210510	Total/NA	Water	SM5310C	

Client Sample ID: S-369_20210510

Lab Sample ID: 410-39343-1

Date Collected: 05/10/21 09:10

Matrix: Water

Date Received: 05/11/21 17:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	126093	05/13/21 18:57	UKAD	ELLE
Total/NA	Analysis	8260C/UST	DL	10	127001	05/17/21 16:39	HDS6	ELLE
Total/NA	Prep	3510C			126775	05/16/21 02:14	UKQ8	ELLE
Total/NA	Analysis	8270D		1	127308	05/18/21 03:08	W6XI	ELLE
Total/NA	Prep	RSK-175			125335	05/12/21 08:06	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	125340	05/12/21 19:38	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		125880	05/13/21 08:34	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	200	125919	05/13/21 13:57	LXF2	ELLE
Total/NA	Prep	8011			126728	05/15/21 09:16	UKQ8	ELLE
Total/NA	Analysis	8011		1	126906	05/17/21 12:39	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	126032	05/13/21 15:46	W5UX	ELLE
Total Recoverable	Prep	3005A			125568	05/12/21 14:21	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	126590	05/14/21 14:28	MDP5	ELLE
Total Recoverable	Prep	3005A			125568	05/12/21 14:21	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	127245	05/17/21 15:58	WJM9	ELLE
Dissolved	Prep	Non-Digest Prep			125591	05/12/21 15:31	UJLA	ELLE
Dissolved	Analysis	6020A		1	126228	05/13/21 18:38	UCIG	ELLE
Total/NA	Analysis	2320B-2011		1	126089	05/13/21 07:26	DI9Q	ELLE
Total/NA	Prep	351.2			126098	05/13/21 14:24	F8AU	ELLE
Total/NA	Analysis	351.2		1	128776	05/20/21 11:51	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	128137	05/18/21 19:04	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		2	126506	05/14/21 02:20	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	129241	05/21/21 10:54	KGQ6	ELLE

Client Sample ID: DUP-8_20210510

Lab Sample ID: 410-39343-2

Date Collected: 05/10/21 00:00

Matrix: Water

Date Received: 05/11/21 17:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	126093	05/13/21 19:21	UKAD	ELLE
Total/NA	Analysis	8260C/UST	DL	10	127001	05/17/21 17:03	HDS6	ELLE
Total/NA	Prep	3510C			127190	05/17/21 17:00	DFX4	ELLE
Total/NA	Analysis	8270D		1	128178	05/19/21 20:16	WKV3	ELLE
Total/NA	Prep	RSK-175			125335	05/12/21 08:06	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	125340	05/12/21 19:57	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		125880	05/13/21 08:34	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	200	125919	05/13/21 14:15	LXF2	ELLE
Total/NA	Prep	8011			126728	05/15/21 09:16	UKQ8	ELLE
Total/NA	Analysis	8011		1	126906	05/17/21 13:30	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	125607	05/12/21 17:58	GJ35	ELLE
Total Recoverable	Prep	3005A			125568	05/12/21 14:21	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	126590	05/14/21 14:42	MDP5	ELLE

Client Sample ID: DUP-8_20210510

Lab Sample ID: 410-39343-2

Date Collected: 05/10/21 00:00

Matrix: Water

Date Received: 05/11/21 17:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			125568	05/12/21 14:21	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	127245	05/17/21 16:11	WJM9	ELLE
Dissolved	Prep	Non-Digest Prep			125591	05/12/21 15:31	UJLA	ELLE
Dissolved	Analysis	6020A		1	126228	05/13/21 18:36	UCIG	ELLE
Total/NA	Analysis	2320B-2011		1	126089	05/13/21 06:56	DI9Q	ELLE
Total/NA	Prep	351.2			126098	05/13/21 14:24	F8AU	ELLE
Total/NA	Analysis	351.2		1	128776	05/20/21 11:49	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	128137	05/18/21 19:36	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		2	126506	05/14/21 02:37	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	129241	05/21/21 10:54	KGQ6	ELLE

Client Sample ID: C-106_SL_20210510

Lab Sample ID: 410-39343-3

Date Collected: 05/10/21 10:05

Matrix: Water

Date Received: 05/11/21 17:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	126093	05/13/21 19:45	UKAD	ELLE
Total/NA	Prep	3510C			127190	05/17/21 17:00	DFX4	ELLE
Total/NA	Analysis	8270D		1	128178	05/19/21 20:45	WKV3	ELLE
Total/NA	Prep	RSK-175			125335	05/12/21 08:06	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	125340	05/12/21 20:16	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		125880	05/13/21 08:34	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	200	125919	05/13/21 14:34	LXF2	ELLE
Total/NA	Prep	8011			126728	05/15/21 09:16	UKQ8	ELLE
Total/NA	Analysis	8011		1	126906	05/17/21 13:47	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	125607	05/12/21 18:18	GJ35	ELLE
Total Recoverable	Prep	3005A			125568	05/12/21 14:21	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	126590	05/14/21 14:39	MDP5	ELLE
Total Recoverable	Prep	3005A			125568	05/12/21 14:21	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	127245	05/17/21 16:08	WJM9	ELLE
Dissolved	Prep	Non-Digest Prep			125591	05/12/21 15:31	UJLA	ELLE
Dissolved	Analysis	6020A		1	126228	05/13/21 18:48	UCIG	ELLE
Total/NA	Analysis	2320B-2011		1	126089	05/13/21 07:20	DI9Q	ELLE
Total/NA	Prep	351.2			126098	05/13/21 14:24	F8AU	ELLE
Total/NA	Analysis	351.2		1	128776	05/20/21 11:53	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	128137	05/18/21 19:47	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		2	126506	05/14/21 04:47	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	129241	05/21/21 10:54	KGQ6	ELLE

Client Sample ID: RW-703_20210510

Lab Sample ID: 410-39343-4

Date Collected: 05/10/21 11:10

Matrix: Water

Date Received: 05/11/21 17:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	126093	05/13/21 22:55	UKAD	ELLE
Total/NA	Analysis	8260C/UST	DL	50	127001	05/17/21 17:27	HDS6	ELLE
Total/NA	Prep	3510C			127190	05/17/21 17:00	DFX4	ELLE
Total/NA	Analysis	8270D		1	128178	05/19/21 21:14	WKV3	ELLE
Total/NA	Prep	RSK-175			125335	05/12/21 08:06	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	125340	05/12/21 20:35	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		125880	05/13/21 08:34	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	100	125919	05/13/21 14:52	LXF2	ELLE
Total/NA	Prep	8011			126728	05/15/21 09:16	UKQ8	ELLE
Total/NA	Analysis	8011		1	126906	05/17/21 14:04	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	125607	05/12/21 18:39	GJ35	ELLE
Total Recoverable	Prep	3005A			125568	05/12/21 14:21	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	126590	05/14/21 13:51	MDP5	ELLE
Total Recoverable	Prep	3005A			125568	05/12/21 14:21	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	127245	05/17/21 15:17	WJM9	ELLE
Dissolved	Prep	Non-Digest Prep			125591	05/12/21 15:31	UJLA	ELLE
Dissolved	Analysis	6020A		1	126228	05/13/21 18:52	UCIG	ELLE
Total/NA	Analysis	2320B-2011		1	126089	05/13/21 06:35	DI9Q	ELLE
Total/NA	Prep	351.2			126098	05/13/21 14:24	F8AU	ELLE
Total/NA	Analysis	351.2		1	128868	05/20/21 13:32	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	128137	05/18/21 19:57	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		2	126506	05/14/21 05:03	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	129241	05/21/21 10:54	KGQ6	ELLE

Client Sample ID: RW-701_20210510

Lab Sample ID: 410-39343-5

Date Collected: 05/10/21 12:25

Matrix: Water

Date Received: 05/11/21 17:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	126093	05/13/21 20:08	UKAD	ELLE
Total/NA	Prep	3510C			127190	05/17/21 17:00	DFX4	ELLE
Total/NA	Analysis	8270D		1	128178	05/19/21 21:43	WKV3	ELLE
Total/NA	Prep	RSK-175			125335	05/12/21 08:06	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	125340	05/12/21 20:54	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		125880	05/13/21 08:34	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	20	125919	05/13/21 15:11	LXF2	ELLE
Total/NA	Prep	8011			126728	05/15/21 09:16	UKQ8	ELLE
Total/NA	Analysis	8011		1	126906	05/17/21 14:21	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	125630	05/12/21 19:19	GJ35	ELLE
Total Recoverable	Prep	3005A			125568	05/12/21 14:21	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	126590	05/14/21 14:32	MDP5	ELLE
Total Recoverable	Prep	3005A			125568	05/12/21 14:21	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	127245	05/17/21 16:01	WJM9	ELLE

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39343-1

Client Sample ID: RW-701_20210510

Lab Sample ID: 410-39343-5

Date Collected: 05/10/21 12:25
Date Received: 05/11/21 17:10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			125591	05/12/21 15:31	UJLA	ELLE
Dissolved	Analysis	6020A		1	126228	05/13/21 18:50	UCIG	ELLE
Total/NA	Analysis	2320B-2011		1	126089	05/13/21 07:32	DI9Q	ELLE
Total/NA	Prep	351.2			126098	05/13/21 14:24	F8AU	ELLE
Total/NA	Analysis	351.2		1	128868	05/20/21 13:41	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	128137	05/18/21 20:08	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		2	126506	05/14/21 05:19	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	129241	05/21/21 10:54	KGQ6	ELLE

Client Sample ID: RWBH-2_SL_20210510

Lab Sample ID: 410-39343-6

Date Collected: 05/10/21 13:15
Date Received: 05/11/21 17:10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	126093	05/13/21 20:32	UKAD	ELLE
Total/NA	Prep	3510C			127190	05/17/21 17:00	DFX4	ELLE
Total/NA	Analysis	8270D		1	128178	05/19/21 22:12	WKV3	ELLE
Total/NA	Prep	RSK-175			125335	05/12/21 08:06	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	125340	05/12/21 21:13	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		125880	05/13/21 08:34	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	50	125919	05/13/21 15:30	LXF2	ELLE
Total/NA	Prep	8011			126728	05/15/21 09:16	UKQ8	ELLE
Total/NA	Analysis	8011		1	126906	05/17/21 14:37	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	125630	05/12/21 16:32	GJ35	ELLE
Total Recoverable	Prep	3005A			125568	05/12/21 14:21	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	126590	05/14/21 14:35	MDP5	ELLE
Total Recoverable	Prep	3005A			125568	05/12/21 14:21	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	127245	05/17/21 16:05	WJM9	ELLE
Dissolved	Prep	Non-Digest Prep			125591	05/12/21 15:31	UJLA	ELLE
Dissolved	Analysis	6020A		1	126228	05/13/21 18:34	UCIG	ELLE
Total/NA	Analysis	2320B-2011		1	126089	05/13/21 07:39	DI9Q	ELLE
Total/NA	Prep	351.2			126098	05/13/21 14:24	F8AU	ELLE
Total/NA	Analysis	351.2		1	128868	05/20/21 13:35	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	128137	05/18/21 20:19	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	126506	05/14/21 05:36	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	129241	05/21/21 10:54	KGQ6	ELLE

Client Sample ID: TB_20210511

Lab Sample ID: 410-39343-7

Date Collected: 05/11/21 00:00
Date Received: 05/11/21 17:10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	126093	05/13/21 17:22	UKAD	ELLE

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39343-1

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Job ID: 410-39343-1
Project/Site: Former PES Annual GWS

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
5310 B-2011		Water	Total Carbon
SM5310C		Water	Total Inorganic Carbon

Method Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39343-1

Method	Method Description	Protocol	Laboratory
8260C/UST	Volatile Organic Compounds (GC/MS)	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
RSK-175	Dissolved Gases (GC)	RSK	ELLE
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	ELLE
6010C	Metals (ICP)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
2320B-2011	Alkalinity, Total	SM	ELLE
351.2	Nitrogen, Total Kjeldahl	MCAWW	ELLE
5310 B-2011	Carbon, Total and Total Inorganic	SM	ELLE
5310C-2011	Total Organic Carbon/Persulfate - Ultrav	SM	ELLE
SM5310C	Carbon, Total Inorganic	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
351.2	Nitrogen, Total Kjeldahl	MCAWW	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
8011	Microextraction	SW846	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique , RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39343-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-39343-1	S-369_20210510	Water	05/10/21 09:10	05/11/21 17:10	
410-39343-2	DUP-8_20210510	Water	05/10/21 00:00	05/11/21 17:10	
410-39343-3	C-106_SL_20210510	Water	05/10/21 10:05	05/11/21 17:10	
410-39343-4	RW-703_20210510	Water	05/10/21 11:10	05/11/21 17:10	
410-39343-5	RW-701_20210510	Water	05/10/21 12:25	05/11/21 17:10	
410-39343-6	RWBH-2_SL_20210510	Water	05/10/21 13:15	05/11/21 17:10	
410-39343-7	TB_20210511	Water	05/11/21 00:00	05/11/21 17:10	

Envi Request/Chain of Custody

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410-39343-01 Chain of Custody

Sample # _____

Client:	Evergreen c/o Stantec		
Project Name/#:	Former PES Annual GWS	Site ID #:	16657
Project Manager:	Andrew Bradley	P.O. #:	213403363
Sampler:	Dane Hopkins, Doulton Campbell, Andrea Hill	PWSID #:	
Phone #:	610.840.2541	Quote #:	
State where sample(s) were collected:	PA		

Matrix: Soil ☐ Sediment ☐; Water ☑ Ground ☐ Potable ☐ Surface ☐ NPDES; Other: Trip Blank / Field Blank

Analyses Requested — Preservation Codes

Sample Identification	Collection Date	Collection Time	Grab	Composite	Soil	Water	Other: Trip Blank / Field Blank	Total # of Containers	Evergreen Petroleum Short List (refer to attached list of analytes) H / NP	Dissolved Lead (field filtered) N	Total Inorganic Carbon (TIC) P/NP	Sulfate NP	Dissolved Headspace Gases (methane, ethane, ethene) H	Total Iron N	Total Calcium N	Total Kjeldahl Nitrogen (TKN) S	Alkalinity as CaCO3 NP	VOC 8260 (including EDB 8260) H	Remarks
S-369_20210510	5/10/2021	9:10	X			X		18	X	X	X	X	X	X	X	X	X		
DUP-8_20210510	5/10/2021	--	X			X		18	X	X	X	X	X	X	X	X	X		
C-106_SL_20210510	5/10/2021	10:05	X			X		18	X	X	X	X	X	X	X	X	X		
RW-703_20210510	5/10/2021	11:10	X			X		18	X	X	X	X	X	X	X	X	X		
RW-701_20210510	5/10/2021	12:25	X			X		18	X	X	X	X	X	X	X	X	X		
RWBH-2_SL_20210510	5/10/2021	13:15	X			X		18	X	X	X	X	X	X	X	X	X		
TB_20210511	5/11/2021	--					X	2										X	Trip Blank

For Lab Use Only

SF #: _____

SCR #: _____

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other; NP = Non-Preserved

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐

(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed:

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: abradley@stantec.com

Phone: 610.840.2541

Data Package Options (please check if required)

Type I (Validation/non-CLP) ☐ MA MCP ☐

Type III (Reduced non-CLP) ☐ CT RCP ☐

Type IV (CLP SOW) ☐ TX TRRP-13 ☐

Type VI (Raw Data Only) ☐

EDD Required? Yes ☑ No ☐ If yes, format: ___ EQUIS

Relinquished by:	Date	Time	Received by:	Date	Time
[signature]	5/11/21	1405	[signature]	5/11/21	14:05
[signature]	5/11/21	1705			
			[signature]	5-11-21	1710

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt 2.8-3.2 °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

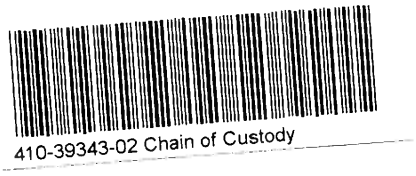
7045 0713

Carc KAM

Carc

5/21/2021

Evergreen Petroleum Short List (June 2016)



VOCs by EPA Method 8260	CAS No.
Benzene	71-43-2
Cumene	98-82-8
Dichloroethane, 1,2-	107-06-2
Ethylbenzene	100-41-4
Ethylene Dibromide*	106-93-4
Methyl tert butyl ether	1634-04-4
Toluene	108-88-3
Trimethylbenzene, 1,2,4-	95-63-6
Trimethylbenzene, 1,3,5-	108-67-8
Xylenes	1330-20-7

SVOCs by EPA Method 8270	CAS No.
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Chrysene	218-01-9
Fluorene	86-73-7
Naphthalene**	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Metals by Method 6010/6020	CAS No.
Lead***	7439-92-1

*Ethylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

**Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

***Metals analysis should be total in soil and dissolved in groundwater.

This list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline and No. 1, 2, 4, 5, 6 Fuel Oils).

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-39343-1

Login Number: 39343

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Metzger, Katherine A

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	True	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-39674-1
Client Project/Site: Former PHL Refinery DDT Sampling

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Andrew Klingbeil

Authorized for release by:
5/26/2021 10:07:27 AM

Amek Carter, Project Manager
(717)556-7252
Loran.Carter@eurofinset.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
5/26/2021 10:07:27 AM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 6
Client Sample Results 7
Surrogate Summary 8
QC Sample Results 9
QC Association Summary 11
Lab Chronicle 12
Certification Summary 13
Method Summary 14
Sample Summary 15
Chain of Custody 16
Receipt Checklists 17

Definitions/Glossary

Client: Stantec Consulting Corp. Job ID: 410-39674-1
Project/Site: Former PHL Refinery DDT Sampling

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
^c	CCV Recovery is outside acceptance limits.
S1-	Surrogate recovery exceeds control limits, low biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-39674-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-39674-1

Receipt
The samples were received on 5/13/2021 5:55 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.3°C

Pesticides
Method 8081B: The DCB Decachlorobiphenyl (Surr) surrogate recovery for the laboratory control sample duplicate (LCSD) was outside acceptance limits (low biased) on the confirmation column: S-369_DDT_20210510 (410-39674-1). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

Method 8081B: Surrogate recovery was outside lower control limits for the following sample: S-440_DDT_20210512 (410-39674-2). All analytes not detected; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Job ID: 410-39674-1
Project/Site: Former PHL Refinery DDT Sampling

Client Sample ID: S-369_DDT_20210510 **Lab Sample ID: 410-39674-1**

No Detections.

Client Sample ID: S-440_DDT_20210512 **Lab Sample ID: 410-39674-2**

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample ID: S-369_DDT_20210510 — Lab Sample ID: 410-39674-1

Date Collected: 05/10/21 09:10 — **Matrix: Water**
Date Received: 05/13/21 17:55

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p,p'-DDD (1C)	ND	^c	0.031	0.0051	ug/L		05/17/21 17:00	05/18/21 12:29	1
p,p'-DDE (2C)	ND	^c	0.031	0.0051	ug/L		05/17/21 17:00	05/18/21 12:29	1
p,p'-DDT (1C)	ND	^c	0.031	0.0053	ug/L		05/17/21 17:00	05/18/21 12:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*49*	*^c*	*32 - 149*	*05/17/21 17:00*	*05/18/21 12:29*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*50*		*32 - 149*	*05/17/21 17:00*	*05/18/21 12:29*	*1*
Tetrachloro-m-xylene (Surr) (1C)	*41*	*^c*	*29 - 129*	*05/17/21 17:00*	*05/18/21 12:29*	*1*
Tetrachloro-m-xylene (Surr) (2C)	*43*		*29 - 129*	*05/17/21 17:00*	*05/18/21 12:29*	*1*

Client Sample ID: S-440_DDT_20210512 — Lab Sample ID: 410-39674-2

Date Collected: 05/12/21 09:25 — **Matrix: Water**
Date Received: 05/13/21 17:55

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p,p'-DDD (1C)	ND		0.030	0.0050	ug/L		05/19/21 17:45	05/20/21 07:59	1
p,p'-DDE (1C)	ND		0.030	0.0050	ug/L		05/19/21 17:45	05/20/21 07:59	1
p,p'-DDT (1C)	ND		0.030	0.0052	ug/L		05/19/21 17:45	05/20/21 07:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*29*	*S1-*	*32 - 149*	*05/19/21 17:45*	*05/20/21 07:59*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*27*	*S1-*	*32 - 149*	*05/19/21 17:45*	*05/20/21 07:59*	*1*
Tetrachloro-m-xylene (Surr) (1C)	*45*		*29 - 129*	*05/19/21 17:45*	*05/20/21 07:59*	*1*
Tetrachloro-m-xylene (Surr) (2C)	*44*		*29 - 129*	*05/19/21 17:45*	*05/20/21 07:59*	*1*

Surrogate Summary

Client: Stantec Consulting Corp.
Job ID: 410-39674-1
Project/Site: Former PHL Refinery DDT Sampling

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCB1	DCB2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(32-149)	(32-149)	(29-129)	(29-129)
410-39674-1	S-369_DDT_20210510	49 ^c	50	41 ^c	43
410-39674-2	S-440_DDT_20210512	29 S1-	27 S1-	45	44
LCS 410-127198/2-A	Lab Control Sample	59	59	64	63
LCS 410-128358/2-A	Lab Control Sample	72	67	60	61
LCSD 410-127198/3-A	Lab Control Sample Dup	32	31 S1-	74	75
LCSD 410-128358/3-A	Lab Control Sample Dup	46	47	51	53
MB 410-127198/1-A	Method Blank	65	61	78	69
MB 410-128358/1-A	Method Blank	72	71	38	39

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-127198/1-A
Matrix: Water
Analysis Batch: 127394

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 127198

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p,p'-DDD (1C)	ND		0.030	0.0050	ug/L		05/17/21 17:00	05/18/21 11:04	1
p,p'-DDE (1C)	ND		0.030	0.0050	ug/L		05/17/21 17:00	05/18/21 11:04	1
p,p'-DDT (1C)	ND		0.030	0.0052	ug/L		05/17/21 17:00	05/18/21 11:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*65*		*32 - 149*	*05/17/21 17:00*	*05/18/21 11:04*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*61*		*32 - 149*	*05/17/21 17:00*	*05/18/21 11:04*	*1*
Tetrachloro-m-xylene (Surr) (1C)	*78*		*29 - 129*	*05/17/21 17:00*	*05/18/21 11:04*	*1*
Tetrachloro-m-xylene (Surr) (2C)	*69*		*29 - 129*	*05/17/21 17:00*	*05/18/21 11:04*	*1*

Lab Sample ID: LCS 410-127198/2-A
Matrix: Water
Analysis Batch: 127913

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 127198

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
p,p'-DDD (2C)			0.201	0.188		ug/L		93	42 - 148		
p,p'-DDE (1C)			0.201	0.134		ug/L		67	22 - 138		
p,p'-DDT (2C)			0.201	0.176		ug/L		87	40 - 145		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr) (1C)	*59*		*32 - 149*
DCB Decachlorobiphenyl (Surr) (2C)	*59*		*32 - 149*
Tetrachloro-m-xylene (Surr) (1C)	*64*		*29 - 129*
Tetrachloro-m-xylene (Surr) (2C)	*63*		*29 - 129*

Lab Sample ID: LCSD 410-127198/3-A
Matrix: Water
Analysis Batch: 127913

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 127198

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
p,p'-DDD (2C)			0.201	0.202		ug/L		100	42 - 148	7	30
p,p'-DDE (2C)			0.201	0.154		ug/L		77	22 - 138	14	30
p,p'-DDT (2C)			0.201	0.189		ug/L		94	40 - 145	8	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr) (1C)	*32*		*32 - 149*
DCB Decachlorobiphenyl (Surr) (2C)	*31*	*S1-*	*32 - 149*
Tetrachloro-m-xylene (Surr) (1C)	*74*		*29 - 129*
Tetrachloro-m-xylene (Surr) (2C)	*75*		*29 - 129*

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 410-128358/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 128519
Prep Batch: 128358

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p,p'-DDD (1C)	ND		0.030	0.0050	ug/L		05/19/21 17:45	05/20/21 06:46	1
p,p'-DDE (1C)	ND		0.030	0.0050	ug/L		05/19/21 17:45	05/20/21 06:46	1
p,p'-DDT (1C)	ND		0.030	0.0052	ug/L		05/19/21 17:45	05/20/21 06:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*72*		*32 - 149*	*05/19/21 17:45*	*05/20/21 06:46*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*71*		*32 - 149*	*05/19/21 17:45*	*05/20/21 06:46*	*1*
Tetrachloro-m-xylene (Surr) (1C)	*38*		*29 - 129*	*05/19/21 17:45*	*05/20/21 06:46*	*1*
Tetrachloro-m-xylene (Surr) (2C)	*39*		*29 - 129*	*05/19/21 17:45*	*05/20/21 06:46*	*1*

Lab Sample ID: LCS 410-128358/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 128519
Prep Batch: 128358

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
p,p'-DDD (1C)			0.201	0.173		ug/L		86	42 - 148		
p,p'-DDE (1C)			0.201	0.130		ug/L		65	22 - 138		
p,p'-DDT (2C)			0.201	0.185		ug/L		92	40 - 145		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr) (1C)	*72*		*32 - 149*
DCB Decachlorobiphenyl (Surr) (2C)	*67*		*32 - 149*
Tetrachloro-m-xylene (Surr) (1C)	*60*		*29 - 129*
Tetrachloro-m-xylene (Surr) (2C)	*61*		*29 - 129*

Lab Sample ID: LCSD 410-128358/3-A
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 128519
Prep Batch: 128358

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
p,p'-DDD (2C)			0.201	0.137		ug/L		68	42 - 148	23	30
p,p'-DDE (2C)			0.201	0.123		ug/L		61	22 - 138	6	30
p,p'-DDT (2C)			0.201	0.147		ug/L		73	40 - 145	23	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr) (1C)	*46*		*32 - 149*
DCB Decachlorobiphenyl (Surr) (2C)	*47*		*32 - 149*
Tetrachloro-m-xylene (Surr) (1C)	*51*		*29 - 129*
Tetrachloro-m-xylene (Surr) (2C)	*53*		*29 - 129*

QC Association Summary

Client: Stantec Consulting Corp.
Job ID: 410-39674-1
Project/Site: Former PHL Refinery DDT Sampling

GC Semi VOA

Prep Batch: 127198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39674-1	S-369_DDT_20210510	Total/NA	Water	3510C	
MB 410-127198/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-127198/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-127198/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 127394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39674-1	S-369_DDT_20210510	Total/NA	Water	8081B	127198
MB 410-127198/1-A	Method Blank	Total/NA	Water	8081B	127198

Analysis Batch: 127913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-127198/2-A	Lab Control Sample	Total/NA	Water	8081B	127198
LCSD 410-127198/3-A	Lab Control Sample Dup	Total/NA	Water	8081B	127198

Prep Batch: 128358

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39674-2	S-440_DDT_20210512	Total/NA	Water	3510C	
MB 410-128358/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-128358/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-128358/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 128519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39674-2	S-440_DDT_20210512	Total/NA	Water	8081B	128358
MB 410-128358/1-A	Method Blank	Total/NA	Water	8081B	128358
LCS 410-128358/2-A	Lab Control Sample	Total/NA	Water	8081B	128358
LCSD 410-128358/3-A	Lab Control Sample Dup	Total/NA	Water	8081B	128358

Lab Chronicle

Client: Stantec Consulting Corp.
Job ID: 410-39674-1
Project/Site: Former PHL Refinery DDT Sampling

Client Sample ID: S-369_DDT_20210510
Lab Sample ID: 410-39674-1

Date Collected: 05/10/21 09:10
Matrix: Water
Date Received: 05/13/21 17:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			127198	05/17/21 17:00	DFX4	ELLE
Total/NA	Analysis	8081B		1	127394	05/18/21 12:29	ZO3C	ELLE

Client Sample ID: S-440_DDT_20210512
Lab Sample ID: 410-39674-2

Date Collected: 05/12/21 09:25
Matrix: Water
Date Received: 05/13/21 17:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			128358	05/19/21 17:45	DFX4	ELLE
Total/NA	Analysis	8081B		1	128519	05/20/21 07:59	ZO3C	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp. Job ID: 410-39674-1
Project/Site: Former PHL Refinery DDT Sampling

Laboratory: Eurofins Lancaster Laboratories Env, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-22

Method Summary

Client: Stantec Consulting Corp.
Job ID: 410-39674-1
Project/Site: Former PHL Refinery DDT Sampling

Method	Method Description	Protocol	Laboratory
8081B	Organochlorine Pesticides (GC)	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Job ID: 410-39674-1
Project/Site: Former PHL Refinery DDT Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-39674-1	S-369_DDT_20210510	Water	05/10/21 09:10	05/13/21 17:55	
410-39674-2	S-440_DDT_20210512	Water	05/12/21 09:25	05/13/21 17:55	

Env[barcode] s Request/Chain of Custody

410-39674 Chain of Custody

eurofins | Lancaster Laboratories Environmental

Sample # _____

Client:	Evergreen c/o Stantec		
Project Name/#:	Former PHL Refinery DDT Sampling	Site ID #:	16657
Project Manager:	Andrew Klingbeil, Andrew Bradley	P.O. #:	213403363
Sampler:	Dane Hopkins, Doulton Campbell, Andrea Hill	PWSID #:	
Phone #:	610.840.2541	Quote #:	
State where sample(s) were collected:	PA		

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Matrix: Sediment	Matrix: Water (Ground, Potable, Surface, NPDES)	Matrix: Other: Trip Blank / Field Blank	Total # of Containers	Analyses Requested: 4,4'-DDT by SW 846 EPA 8081 (NP)	4,4'-DDE by SW 846 EPA 8081 (NP)	4,4'-DDD by SW 846 EPA 8081 (NP)	Remarks
S-369_DDT_20210510	5/10/2021	9:10	X				X		2	X	X	X	
S-440_DDT_20210512	5/12/2021	9:25	X				X		2	X	X	X	

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other; NP = Non-Preserved

For Lab Use Only: SF #: _____ SCR #: _____

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed:

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: aklingbeil@stantec.com, abradley@stantec.com

Phone: 610.840.2541

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type IV (CLP SOW)	☐	TX TRRP-13	☐
Type VI (Raw Data Only)	☐		

EDD Required? Yes ☑ No ☐ If yes, format: EQUIS

	Relinquished by:	Date	Time	Received by:	Date	Time
1	[signature]	5/13/21	13:15	[signature]	5/13/21	13:15
2	[signature]	5/13/21	17:35	[signature]		
3						
4						
5				[signature]	5-13-21	1754

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt 1.3 °C

KAM

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

7045 0713

KAM

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-39674-1

Login Number: 39674

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Metzger, Katherine A

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-39710-1
Client Project/Site: Former PES Annual GWS

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Mr. Andrew Bradley

Authorized for release by:
5/26/2021 10:38:32 PM

Amek Carter, Project Manager
(717)556-7252
Loran.Carter@eurofinset.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
5/26/2021 10:38:32 PM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 6
Detection Summary 7
Client Sample Results 10
Surrogate Summary 22
QC Sample Results 24
QC Association Summary 34
Lab Chronicle 40
Certification Summary 45
Method Summary 46
Sample Summary 47
Chain of Custody 48
Receipt Checklists 50

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
S1+	Surrogate recovery exceeds control limits, high biased.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-39710-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-39710-1

Receipt
The samples were received on 5/13/2021 5:55 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.4°C and 3.5°C

GC/MS VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270D: Surrogate recovery for the following sample was outside control limits: S-376_SL_20210512 (410-39710-4).
Re-extraction and/or re-analysis was performed outside of holding time with acceptable results.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39710-1

Client Sample ID: S-440_20210512 — Lab Sample ID: 410-39710-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.94	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Methane (1C)	5.4		5.0	3.0	ug/L	1		RSK-175	Total/NA
Sulfate	9100		5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	20000		500	96	ug/L	1		6010C	Total Recoverable
Iron	7200		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	47000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Carbon	23000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	970	J	1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	22000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-78SRTF_20210512 — Lab Sample ID: 410-39710-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	70		5.0	2.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	9.2	J	25	1.5	ug/L	5		8260C/UST	Total/NA
Toluene	90		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	320		30	7.0	ug/L	5		8260C/UST	Total/NA
Methyl tert-butyl ether	15		5.0	1.0	ug/L	5		8260C/UST	Total/NA
1,2,4-Trimethylbenzene	6.9	J	25	5.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	52		25	1.0	ug/L	5		8260C/UST	Total/NA
t-Butyl alcohol	1500		250	60	ug/L	5		8260C/UST	Total/NA
Benzene - DL	2500		50	10	ug/L	50		8260C/UST	Total/NA
Fluorene	0.68		0.57	0.14	ug/L	1		8270D	Total/NA
Naphthalene	4.0		0.57	0.11	ug/L	1		8270D	Total/NA
Phenanthrene	0.48	J	0.57	0.13	ug/L	1		8270D	Total/NA
Ethane (1C)	6.5		5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	16000		250	150	ug/L	50		RSK-175	Total/NA
Sulfate	10000		5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	72000		500	96	ug/L	1		6010C	Total Recoverable
Iron	60000		200	40	ug/L	1		6010C	Total Recoverable
Lead	2.4		0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	350000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	9000		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	110000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	17000		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	93000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-142SRTF_20210512 — Lab Sample ID: 410-39710-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	100		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Benzene	1.6		1.0	0.20	ug/L	1		8260C/UST	Total/NA
t-Butyl alcohol	29	J	50	12	ug/L	1		8260C/UST	Total/NA
Ethane (1C)	1.3	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C)	98		5.0	3.0	ug/L	1		RSK-175	Total/NA
Sulfate	9400		5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	71000		500	96	ug/L	1		6010C	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample ID: S-142SRTF_20210512 (Continued) — Lab Sample ID: 410-39710-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	18000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	420000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	10000		5000	2500	ug/L	5		351.2	Total/NA
Total Carbon	100000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	8300		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	92000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-376_SL_20210512 — Lab Sample ID: 410-39710-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	490		5.0	2.0	ug/L	5		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	160		25	1.5	ug/L	5		8260C/UST	Total/NA
Xylenes, Total	2800		30	7.0	ug/L	5		8260C/UST	Total/NA
Methyl tert-butyl ether	6.4		5.0	1.0	ug/L	5		8260C/UST	Total/NA
Benzene	630		5.0	1.0	ug/L	5		8260C/UST	Total/NA
1,2,4-Trimethylbenzene	530		25	5.0	ug/L	5		8260C/UST	Total/NA
Isopropylbenzene	13	J	25	1.0	ug/L	5		8260C/UST	Total/NA
Toluene - DL	1000		50	10	ug/L	50		8260C/UST	Total/NA
Naphthalene - DL	160		5.0	1.0	ug/L	10		8270D	Total/NA
Ethane (1C)	1.8	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	16000		500	300	ug/L	100		RSK-175	Total/NA
Sulfate	16000		5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	73000		500	96	ug/L	1		6010C	Total Recoverable
Iron	51000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	420000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Carbon	110000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	10000		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	100000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-146SRTF_20210512 — Lab Sample ID: 410-39710-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	3.6		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Benzene	0.46	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Methane (1C)	110		5.0	3.0	ug/L	1		RSK-175	Total/NA
Sulfate	13000		5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	160000		500	96	ug/L	1		6010C	Total Recoverable
Iron	28000		200	40	ug/L	1		6010C	Total Recoverable
Total Alkalinity as CaCO3 to pH 4.5	520000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	9700		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	100000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	9300		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	91000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-147SRTF_20210512 — Lab Sample ID: 410-39710-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloroethane	0.74	J	1.0	0.30	ug/L	1		8260C/UST	Total/NA
Methyl tert-butyl ether	2.8		1.0	0.20	ug/L	1		8260C/UST	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: S-147SRTF_20210512 (Continued)

Lab Sample ID: 410-39710-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.28	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Methane (1C) - DL	700		25	15	ug/L	5		RSK-175	Total/NA
Sulfate	9000		5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	140000		500	96	ug/L	1		6010C	Total Recoverable
Iron	15000		200	40	ug/L	1		6010C	Total Recoverable
Lead	0.29	J	0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	530000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	13000		5000	2500	ug/L	5		351.2	Total/NA
Total Carbon	140000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	13000		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	130000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-193_20210512

Lab Sample ID: 410-39710-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	1.5		1.0	0.40	ug/L	1		8260C/UST	Total/NA
Methyl tert-butyl ether	0.86	J	1.0	0.20	ug/L	1		8260C/UST	Total/NA
Benzene	7.8		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Isopropylbenzene	0.56	J	5.0	0.20	ug/L	1		8260C/UST	Total/NA
t-Butyl alcohol	14	J	50	12	ug/L	1		8260C/UST	Total/NA
Methane (1C) - DL	1600		50	30	ug/L	10		RSK-175	Total/NA
Sulfate	36000		5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	120000		500	96	ug/L	1		6010C	Total Recoverable
Iron	42000		200	40	ug/L	1		6010C	Total Recoverable
Lead	0.14	J	0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	160000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	2900		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	63000		10000	5000	ug/L	10		5310 B-2011	Total/NA
Total Organic Carbon	11000		1000	500	ug/L	1		5310C-2011	Total/NA
Total Inorganic Carbon	52000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: TB_20210513

Lab Sample ID: 410-39710-8

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: S-440_20210512
Date Collected: 05/12/21 09:25
Date Received: 05/13/21 17:55

Lab Sample ID: 410-39710-1
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/20/21 15:47	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/20/21 15:47	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/20/21 15:47	1
Toluene	ND		1.0	0.20	ug/L			05/20/21 15:47	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/20/21 15:47	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/20/21 15:47	1
Benzene	**0.94**	**J**	1.0	0.20	ug/L			05/20/21 15:47	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/20/21 15:47	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/20/21 15:47	1
t-Butyl alcohol	ND		50	12	ug/L			05/20/21 15:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*80 - 120*		*05/20/21 15:47*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*05/20/21 15:47*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*05/20/21 15:47*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*05/20/21 15:47*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/19/21 17:45	05/21/21 03:45	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/19/21 17:45	05/21/21 03:45	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/19/21 17:45	05/21/21 03:45	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/19/21 17:45	05/21/21 03:45	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/19/21 17:45	05/21/21 03:45	1
Chrysene	ND		0.50	0.10	ug/L		05/19/21 17:45	05/21/21 03:45	1
Fluorene	ND		0.50	0.12	ug/L		05/19/21 17:45	05/21/21 03:45	1
Naphthalene	ND		0.50	0.10	ug/L		05/19/21 17:45	05/21/21 03:45	1
Phenanthrene	ND		0.50	0.11	ug/L		05/19/21 17:45	05/21/21 03:45	1
Pyrene	ND		0.50	0.10	ug/L		05/19/21 17:45	05/21/21 03:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*79*		*35 - 100*	*05/19/21 17:45*	*05/21/21 03:45*	*1*
Nitrobenzene-d5 (Surr)	*87*		*22 - 117*	*05/19/21 17:45*	*05/21/21 03:45*	*1*
p-Terphenyl-d14 (Surr)	*61*		*31 - 119*	*05/19/21 17:45*	*05/21/21 03:45*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/19/21 08:09	05/19/21 09:58	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/19/21 08:09	05/19/21 09:58	1
Methane (1C)	**5.4**		5.0	3.0	ug/L		05/19/21 08:09	05/19/21 09:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*80*		*28 - 140*	*05/19/21 08:09*	*05/19/21 09:58*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND	*+	0.028	0.0095	ug/L		05/17/21 17:10	05/18/21 08:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*123*		*46 - 136*	*05/17/21 17:10*	*05/18/21 08:11*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*127*		*46 - 136*	*05/17/21 17:10*	*05/18/21 08:11*	*1*

Client Sample ID: S-440_20210512

Lab Sample ID: 410-39710-1

Date Collected: 05/12/21 09:25

Matrix: Water

Date Received: 05/13/21 17:55

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**9100**		5000	1500	ug/L			05/14/21 17:24	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**20000**		500	96	ug/L		05/17/21 02:07	05/17/21 10:27	1
Iron	**7200**		200	40	ug/L		05/17/21 02:07	05/17/21 10:27	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/17/21 04:46	05/18/21 10:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**47000**		8000	8000	ug/L			05/15/21 04:18	1
Total Kjeldahl Nitrogen	ND		1000	500	ug/L		05/14/21 13:31	05/21/21 14:14	1
Total Carbon	**23000**		10000	5000	ug/L			05/18/21 22:28	10
Total Organic Carbon	**970**	**J**	1000	500	ug/L			05/15/21 01:03	1
Total Inorganic Carbon	**22000**		2000	600	ug/L			05/21/21 10:54	1

Client Sample ID: S-78SRTF_20210512

Lab Sample ID: 410-39710-2

Date Collected: 05/12/21 08:35

Matrix: Water

Date Received: 05/13/21 17:55

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**70**		5.0	2.0	ug/L			05/20/21 19:00	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			05/20/21 19:00	5
1,3,5-Trimethylbenzene	**9.2**	**J**	25	1.5	ug/L			05/20/21 19:00	5
Toluene	**90**		5.0	1.0	ug/L			05/20/21 19:00	5
Xylenes, Total	**320**		30	7.0	ug/L			05/20/21 19:00	5
Methyl tert-butyl ether	**15**		5.0	1.0	ug/L			05/20/21 19:00	5
1,2,4-Trimethylbenzene	**6.9**	**J**	25	5.0	ug/L			05/20/21 19:00	5
Isopropylbenzene	**52**		25	1.0	ug/L			05/20/21 19:00	5
t-Butyl alcohol	**1500**		250	60	ug/L			05/20/21 19:00	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 120*		*05/20/21 19:00*	*5*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*05/20/21 19:00*	*5*
Dibromofluoromethane (Surr)	*94*		*80 - 120*		*05/20/21 19:00*	*5*
Toluene-d8 (Surr)	*105*		*80 - 120*		*05/20/21 19:00*	*5*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**2500**		50	10	ug/L			05/20/21 19:24	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 120*		*05/20/21 19:24*	*50*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*05/20/21 19:24*	*50*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*05/20/21 19:24*	*50*
Toluene-d8 (Surr)	*104*		*80 - 120*		*05/20/21 19:24*	*50*

Client Sample ID: S-78SRTF_20210512
Date Collected: 05/12/21 08:35
Date Received: 05/13/21 17:55

Lab Sample ID: 410-39710-2
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.57	0.11	ug/L		05/19/21 17:45	05/21/21 04:14	1
Benzo[a]anthracene	ND		0.57	0.11	ug/L		05/19/21 17:45	05/21/21 04:14	1
Benzo[a]pyrene	ND		0.57	0.13	ug/L		05/19/21 17:45	05/21/21 04:14	1
Benzo[b]fluoranthene	ND		0.57	0.11	ug/L		05/19/21 17:45	05/21/21 04:14	1
Benzo[g,h,i]perylene	ND		0.57	0.11	ug/L		05/19/21 17:45	05/21/21 04:14	1
Chrysene	ND		0.57	0.11	ug/L		05/19/21 17:45	05/21/21 04:14	1
Fluorene	**0.68**		0.57	0.14	ug/L		05/19/21 17:45	05/21/21 04:14	1
Naphthalene	**4.0**		0.57	0.11	ug/L		05/19/21 17:45	05/21/21 04:14	1
Phenanthrene	**0.48**	**J**	0.57	0.13	ug/L		05/19/21 17:45	05/21/21 04:14	1
Pyrene	ND		0.57	0.11	ug/L		05/19/21 17:45	05/21/21 04:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*75*		*35 - 100*	*05/19/21 17:45*	*05/21/21 04:14*	*1*
Nitrobenzene-d5 (Surr)	*77*		*22 - 117*	*05/19/21 17:45*	*05/21/21 04:14*	*1*
p-Terphenyl-d14 (Surr)	*82*		*31 - 119*	*05/19/21 17:45*	*05/21/21 04:14*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**6.5**		5.0	1.0	ug/L		05/19/21 08:09	05/19/21 10:17	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/19/21 08:09	05/19/21 10:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*79*		*28 - 140*	*05/19/21 08:09*	*05/19/21 10:17*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**16000**		250	150	ug/L		05/19/21 08:09	05/19/21 10:35	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*92*		*28 - 140*	*05/19/21 08:09*	*05/19/21 10:35*	*50*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND	*+	0.029	0.0096	ug/L		05/17/21 17:10	05/18/21 08:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*123*		*46 - 136*	*05/17/21 17:10*	*05/18/21 08:28*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*126*		*46 - 136*	*05/17/21 17:10*	*05/18/21 08:28*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**10000**		5000	1500	ug/L			05/14/21 18:09	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**72000**		500	96	ug/L		05/17/21 02:07	05/17/21 10:36	1
Iron	**60000**		200	40	ug/L		05/17/21 02:07	05/17/21 10:36	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**2.4**		0.52	0.073	ug/L		05/17/21 04:46	05/18/21 11:04	1

Client Sample ID: S-78SRTF_20210512

Lab Sample ID: 410-39710-2

Date Collected: 05/12/21 08:35

Matrix: Water

Date Received: 05/13/21 17:55

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**350000**		8000	8000	ug/L			05/15/21 04:26	1
Total Kjeldahl Nitrogen	**9000**		1000	500	ug/L		05/14/21 13:31	05/21/21 14:15	1
Total Carbon	**110000**		10000	5000	ug/L			05/18/21 23:01	10
Total Organic Carbon	**17000**		1000	500	ug/L			05/15/21 01:19	1
Total Inorganic Carbon	**93000**		2000	600	ug/L			05/21/21 10:54	1

Client Sample ID: S-142SRTF_20210512

Lab Sample ID: 410-39710-3

Date Collected: 05/12/21 10:05

Matrix: Water

Date Received: 05/13/21 17:55

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/20/21 16:12	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/20/21 16:12	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/20/21 16:12	1
Toluene	ND		1.0	0.20	ug/L			05/20/21 16:12	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/20/21 16:12	1
Methyl tert-butyl ether	**100**		1.0	0.20	ug/L			05/20/21 16:12	1
Benzene	**1.6**		1.0	0.20	ug/L			05/20/21 16:12	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/20/21 16:12	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/20/21 16:12	1
t-Butyl alcohol	**29**	**J**	50	12	ug/L			05/20/21 16:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*		*05/20/21 16:12*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*05/20/21 16:12*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*05/20/21 16:12*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*05/20/21 16:12*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.59	0.12	ug/L		05/19/21 17:45	05/21/21 04:43	1
Benzo[a]anthracene	ND		0.59	0.12	ug/L		05/19/21 17:45	05/21/21 04:43	1
Benzo[a]pyrene	ND		0.59	0.13	ug/L		05/19/21 17:45	05/21/21 04:43	1
Benzo[b]fluoranthene	ND		0.59	0.12	ug/L		05/19/21 17:45	05/21/21 04:43	1
Benzo[g,h,i]perylene	ND		0.59	0.12	ug/L		05/19/21 17:45	05/21/21 04:43	1
Chrysene	ND		0.59	0.12	ug/L		05/19/21 17:45	05/21/21 04:43	1
Fluorene	ND		0.59	0.14	ug/L		05/19/21 17:45	05/21/21 04:43	1
Naphthalene	ND		0.59	0.12	ug/L		05/19/21 17:45	05/21/21 04:43	1
Phenanthrene	ND		0.59	0.13	ug/L		05/19/21 17:45	05/21/21 04:43	1
Pyrene	ND		0.59	0.12	ug/L		05/19/21 17:45	05/21/21 04:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*77*		*35 - 100*	*05/19/21 17:45*	*05/21/21 04:43*	*1*
Nitrobenzene-d5 (Surr)	*79*		*22 - 117*	*05/19/21 17:45*	*05/21/21 04:43*	*1*
p-Terphenyl-d14 (Surr)	*75*		*31 - 119*	*05/19/21 17:45*	*05/21/21 04:43*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**1.3**	**J**	5.0	1.0	ug/L		05/19/21 08:09	05/19/21 10:53	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/19/21 08:09	05/19/21 10:53	1

Client Sample ID: S-142SRTF_20210512

Lab Sample ID: 410-39710-3

Date Collected: 05/12/21 10:05

Matrix: Water

Date Received: 05/13/21 17:55

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**98**		5.0	3.0	ug/L		05/19/21 08:09	05/19/21 10:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*76*		*28 - 140*	*05/19/21 08:09*	*05/19/21 10:53*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND	*+	0.028	0.0095	ug/L		05/17/21 17:10	05/18/21 08:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*115*		*46 - 136*	*05/17/21 17:10*	*05/18/21 08:44*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*117*		*46 - 136*	*05/17/21 17:10*	*05/18/21 08:44*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**9400**		5000	1500	ug/L			05/14/21 18:31	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**71000**		500	96	ug/L		05/17/21 02:07	05/17/21 10:23	1
Iron	**18000**		200	40	ug/L		05/17/21 02:07	05/17/21 10:23	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/17/21 04:46	05/18/21 11:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**420000**		8000	8000	ug/L			05/15/21 04:33	1
Total Kjeldahl Nitrogen	**10000**		5000	2500	ug/L		05/14/21 13:31	05/21/21 15:32	5
Total Carbon	**100000**		10000	5000	ug/L			05/18/21 23:12	10
Total Organic Carbon	**8300**		1000	500	ug/L			05/15/21 01:35	1
Total Inorganic Carbon	**92000**		2000	600	ug/L			05/21/21 10:54	1

Client Sample ID: S-376_SL_20210512

Lab Sample ID: 410-39710-4

Date Collected: 05/12/21 11:30

Matrix: Water

Date Received: 05/13/21 17:55

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**490**		5.0	2.0	ug/L			05/20/21 19:11	5
1,2-Dichloroethane	ND		5.0	1.5	ug/L			05/20/21 19:11	5
1,3,5-Trimethylbenzene	**160**		25	1.5	ug/L			05/20/21 19:11	5
Xylenes, Total	**2800**		30	7.0	ug/L			05/20/21 19:11	5
Methyl tert-butyl ether	**6.4**		5.0	1.0	ug/L			05/20/21 19:11	5
Benzene	**630**		5.0	1.0	ug/L			05/20/21 19:11	5
1,2,4-Trimethylbenzene	**530**		25	5.0	ug/L			05/20/21 19:11	5
Isopropylbenzene	**13**	**J**	25	1.0	ug/L			05/20/21 19:11	5
t-Butyl alcohol	ND		250	60	ug/L			05/20/21 19:11	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*80 - 120*		*05/20/21 19:11*	*5*

Client Sample ID: S-376_SL_20210512
Date Collected: 05/12/21 11:30
Date Received: 05/13/21 17:55

Lab Sample ID: 410-39710-4
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*05/20/21 19:11*	*5*
Dibromofluoromethane (Surr)	*94*		*80 - 120*		*05/20/21 19:11*	*5*
Toluene-d8 (Surr)	*106*		*80 - 120*		*05/20/21 19:11*	*5*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	**1000**		50	10	ug/L			05/20/21 19:35	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 120*		*05/20/21 19:35*	*50*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*05/20/21 19:35*	*50*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*05/20/21 19:35*	*50*
Toluene-d8 (Surr)	*105*		*80 - 120*		*05/20/21 19:35*	*50*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/19/21 17:45	05/21/21 05:11	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/19/21 17:45	05/21/21 05:11	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/19/21 17:45	05/21/21 05:11	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/19/21 17:45	05/21/21 05:11	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/19/21 17:45	05/21/21 05:11	1
Chrysene	ND		0.50	0.10	ug/L		05/19/21 17:45	05/21/21 05:11	1
Fluorene	ND		0.50	0.12	ug/L		05/19/21 17:45	05/21/21 05:11	1
Phenanthrene	ND		0.50	0.11	ug/L		05/19/21 17:45	05/21/21 05:11	1
Pyrene	ND		0.50	0.10	ug/L		05/19/21 17:45	05/21/21 05:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*79*		*35 - 100*	*05/19/21 17:45*	*05/21/21 05:11*	*1*
Nitrobenzene-d5 (Surr)	*14*	*S1-*	*22 - 117*	*05/19/21 17:45*	*05/21/21 05:11*	*1*
p-Terphenyl-d14 (Surr)	*61*		*31 - 119*	*05/19/21 17:45*	*05/21/21 05:11*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**160**		5.0	1.0	ug/L		05/19/21 17:45	05/21/21 05:40	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*82*		*35 - 100*	*05/19/21 17:45*	*05/21/21 05:40*	*10*
Nitrobenzene-d5 (Surr)	*14*	*S1-*	*22 - 117*	*05/19/21 17:45*	*05/21/21 05:40*	*10*
p-Terphenyl-d14 (Surr)	*62*		*31 - 119*	*05/19/21 17:45*	*05/21/21 05:40*	*10*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	**1.8**	**J**	5.0	1.0	ug/L		05/19/21 08:09	05/19/21 11:30	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/19/21 08:09	05/19/21 11:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*84*		*28 - 140*	*05/19/21 08:09*	*05/19/21 11:30*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**16000**		500	300	ug/L		05/19/21 08:09	05/19/21 11:49	100

Client Sample ID: S-376_SL_20210512

Lab Sample ID: 410-39710-4

Date Collected: 05/12/21 11:30

Matrix: Water

Date Received: 05/13/21 17:55

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*95*		*28 - 140*	*05/19/21 08:09*	*05/19/21 11:49*	*100*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND	*+	0.029	0.0095	ug/L		05/17/21 17:10	05/18/21 09:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*164*	*S1+*	*46 - 136*	*05/17/21 17:10*	*05/18/21 09:01*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*133*		*46 - 136*	*05/17/21 17:10*	*05/18/21 09:01*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**16000**		5000	1500	ug/L			05/14/21 18:53	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**73000**		500	96	ug/L		05/17/21 02:07	05/17/21 10:56	1
Iron	**51000**		200	40	ug/L		05/17/21 02:07	05/17/21 10:56	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/17/21 04:46	05/18/21 11:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**420000**		8000	8000	ug/L			05/15/21 04:40	1
Total Kjeldahl Nitrogen	ND		1000	500	ug/L		05/14/21 13:31	05/21/21 14:15	1
Total Carbon	**110000**		10000	5000	ug/L			05/18/21 23:22	10
Total Organic Carbon	**10000**		1000	500	ug/L			05/15/21 20:34	1
Total Inorganic Carbon	**100000**		2000	600	ug/L			05/21/21 10:54	1

Client Sample ID: S-146SRTF_20210512

Lab Sample ID: 410-39710-5

Date Collected: 05/12/21 11:40

Matrix: Water

Date Received: 05/13/21 17:55

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/20/21 16:22	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/20/21 16:22	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/20/21 16:22	1
Toluene	ND		1.0	0.20	ug/L			05/20/21 16:22	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/20/21 16:22	1
Methyl tert-butyl ether	**3.6**		1.0	0.20	ug/L			05/20/21 16:22	1
Benzene	**0.46**	**J**	1.0	0.20	ug/L			05/20/21 16:22	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/20/21 16:22	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/20/21 16:22	1
t-Butyl alcohol	ND		50	12	ug/L			05/20/21 16:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*80 - 120*		*05/20/21 16:22*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*05/20/21 16:22*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*05/20/21 16:22*	*1*

Client Sample ID: S-146SRTF_20210512
Date Collected: 05/12/21 11:40
Date Received: 05/13/21 17:55

Lab Sample ID: 410-39710-5
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*104*		*80 - 120*		*05/20/21 16:22*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.57	0.11	ug/L		05/19/21 17:45	05/21/21 06:09	1
Benzo[a]anthracene	ND		0.57	0.11	ug/L		05/19/21 17:45	05/21/21 06:09	1
Benzo[a]pyrene	ND		0.57	0.13	ug/L		05/19/21 17:45	05/21/21 06:09	1
Benzo[b]fluoranthene	ND		0.57	0.11	ug/L		05/19/21 17:45	05/21/21 06:09	1
Benzo[g,h,i]perylene	ND		0.57	0.11	ug/L		05/19/21 17:45	05/21/21 06:09	1
Chrysene	ND		0.57	0.11	ug/L		05/19/21 17:45	05/21/21 06:09	1
Fluorene	ND		0.57	0.14	ug/L		05/19/21 17:45	05/21/21 06:09	1
Naphthalene	ND		0.57	0.11	ug/L		05/19/21 17:45	05/21/21 06:09	1
Phenanthrene	ND		0.57	0.13	ug/L		05/19/21 17:45	05/21/21 06:09	1
Pyrene	ND		0.57	0.11	ug/L		05/19/21 17:45	05/21/21 06:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*77*		*35 - 100*	*05/19/21 17:45*	*05/21/21 06:09*	*1*
Nitrobenzene-d5 (Surr)	*80*		*22 - 117*	*05/19/21 17:45*	*05/21/21 06:09*	*1*
p-Terphenyl-d14 (Surr)	*83*		*31 - 119*	*05/19/21 17:45*	*05/21/21 06:09*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/19/21 08:09	05/19/21 12:07	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/19/21 08:09	05/19/21 12:07	1
Methane (1C)	**110**		5.0	3.0	ug/L		05/19/21 08:09	05/19/21 12:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*73*		*28 - 140*	*05/19/21 08:09*	*05/19/21 12:07*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND	*+	0.029	0.0096	ug/L		05/17/21 17:10	05/18/21 09:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*116*		*46 - 136*	*05/17/21 17:10*	*05/18/21 09:18*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*119*		*46 - 136*	*05/17/21 17:10*	*05/18/21 09:18*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**13000**		5000	1500	ug/L			05/14/21 19:26	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**160000**		500	96	ug/L		05/17/21 02:07	05/17/21 10:49	1
Iron	**28000**		200	40	ug/L		05/17/21 02:07	05/17/21 10:49	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/17/21 04:46	05/18/21 11:06	1

Client Sample ID: S-146SRTF_20210512

Lab Sample ID: 410-39710-5

Date Collected: 05/12/21 11:40

Matrix: Water

Date Received: 05/13/21 17:55

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**520000**		8000	8000	ug/L			05/15/21 04:48	1
Total Kjeldahl Nitrogen	**9700**		1000	500	ug/L		05/14/21 13:31	05/21/21 14:16	1
Total Carbon	**100000**		10000	5000	ug/L			05/18/21 23:33	10
Total Organic Carbon	**9300**		1000	500	ug/L			05/15/21 02:57	1
Total Inorganic Carbon	**91000**		2000	600	ug/L			05/21/21 10:54	1

Client Sample ID: S-147SRTF_20210512

Lab Sample ID: 410-39710-6

Date Collected: 05/12/21 14:10

Matrix: Water

Date Received: 05/13/21 17:55

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/20/21 16:47	1
1,2-Dichloroethane	**0.74**	**J**	1.0	0.30	ug/L			05/20/21 16:47	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/20/21 16:47	1
Toluene	ND		1.0	0.20	ug/L			05/20/21 16:47	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/20/21 16:47	1
Methyl tert-butyl ether	**2.8**		1.0	0.20	ug/L			05/20/21 16:47	1
Benzene	**0.28**	**J**	1.0	0.20	ug/L			05/20/21 16:47	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/20/21 16:47	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/20/21 16:47	1
t-Butyl alcohol	ND		50	12	ug/L			05/20/21 16:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 120*		*05/20/21 16:47*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*05/20/21 16:47*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*05/20/21 16:47*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/20/21 16:47*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.57	0.11	ug/L		05/19/21 17:45	05/21/21 06:38	1
Benzo[a]anthracene	ND		0.57	0.11	ug/L		05/19/21 17:45	05/21/21 06:38	1
Benzo[a]pyrene	ND		0.57	0.12	ug/L		05/19/21 17:45	05/21/21 06:38	1
Benzo[b]fluoranthene	ND		0.57	0.11	ug/L		05/19/21 17:45	05/21/21 06:38	1
Benzo[g,h,i]perylene	ND		0.57	0.11	ug/L		05/19/21 17:45	05/21/21 06:38	1
Chrysene	ND		0.57	0.11	ug/L		05/19/21 17:45	05/21/21 06:38	1
Fluorene	ND		0.57	0.14	ug/L		05/19/21 17:45	05/21/21 06:38	1
Naphthalene	ND		0.57	0.11	ug/L		05/19/21 17:45	05/21/21 06:38	1
Phenanthrene	ND		0.57	0.12	ug/L		05/19/21 17:45	05/21/21 06:38	1
Pyrene	ND		0.57	0.11	ug/L		05/19/21 17:45	05/21/21 06:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*73*		*35 - 100*	*05/19/21 17:45*	*05/21/21 06:38*	*1*
Nitrobenzene-d5 (Surr)	*77*		*22 - 117*	*05/19/21 17:45*	*05/21/21 06:38*	*1*
p-Terphenyl-d14 (Surr)	*81*		*31 - 119*	*05/19/21 17:45*	*05/21/21 06:38*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/19/21 08:09	05/19/21 12:26	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/19/21 08:09	05/19/21 12:26	1

Client Sample ID: S-147SRTF_20210512

Lab Sample ID: 410-39710-6

Date Collected: 05/12/21 14:10

Matrix: Water

Date Received: 05/13/21 17:55

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*74*		*28 - 140*	*05/19/21 08:09*	*05/19/21 12:26*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**700**		25	15	ug/L		05/19/21 08:09	05/19/21 12:45	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*77*		*28 - 140*	*05/19/21 08:09*	*05/19/21 12:45*	*5*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND	*+	0.028	0.0094	ug/L		05/17/21 17:10	05/18/21 09:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*109*		*46 - 136*	*05/17/21 17:10*	*05/18/21 09:34*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*113*		*46 - 136*	*05/17/21 17:10*	*05/18/21 09:34*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**9000**		5000	1500	ug/L			05/14/21 20:11	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**140000**		500	96	ug/L		05/17/21 02:07	05/17/21 11:02	1
Iron	**15000**		200	40	ug/L		05/17/21 02:07	05/17/21 11:02	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.29**	**J**	0.52	0.073	ug/L		05/17/21 04:46	05/18/21 11:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**530000**		8000	8000	ug/L			05/15/21 05:06	1
Total Kjeldahl Nitrogen	**13000**		5000	2500	ug/L		05/14/21 13:31	05/21/21 15:33	5
Total Carbon	**140000**		10000	5000	ug/L			05/18/21 23:44	10
Total Organic Carbon	**13000**		1000	500	ug/L			05/15/21 04:02	1
Total Inorganic Carbon	**130000**		2000	600	ug/L			05/21/21 10:54	1

Client Sample ID: S-193_20210512

Lab Sample ID: 410-39710-7

Date Collected: 05/12/21 14:00

Matrix: Water

Date Received: 05/13/21 17:55

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**1.5**		1.0	0.40	ug/L			05/20/21 17:11	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/20/21 17:11	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/20/21 17:11	1
Toluene	ND		1.0	0.20	ug/L			05/20/21 17:11	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/20/21 17:11	1
Methyl tert-butyl ether	**0.86**	**J**	1.0	0.20	ug/L			05/20/21 17:11	1
Benzene	**7.8**		1.0	0.20	ug/L			05/20/21 17:11	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/20/21 17:11	1

Client Sample ID: S-193_20210512

Date Collected: 05/12/21 14:00
Date Received: 05/13/21 17:55

Lab Sample ID: 410-39710-7

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	**0.56**	**J**	5.0	0.20	ug/L			05/20/21 17:11	1
t-Butyl alcohol	**14**	**J**	50	12	ug/L			05/20/21 17:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*		*05/20/21 17:11*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*05/20/21 17:11*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*05/20/21 17:11*	*1*
Toluene-d8 (Surr)	*105*		*80 - 120*		*05/20/21 17:11*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/19/21 17:45	05/21/21 07:07	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/19/21 17:45	05/21/21 07:07	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/19/21 17:45	05/21/21 07:07	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/19/21 17:45	05/21/21 07:07	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/19/21 17:45	05/21/21 07:07	1
Chrysene	ND		0.50	0.10	ug/L		05/19/21 17:45	05/21/21 07:07	1
Fluorene	ND		0.50	0.12	ug/L		05/19/21 17:45	05/21/21 07:07	1
Naphthalene	ND		0.50	0.10	ug/L		05/19/21 17:45	05/21/21 07:07	1
Phenanthrene	ND		0.50	0.11	ug/L		05/19/21 17:45	05/21/21 07:07	1
Pyrene	ND		0.50	0.10	ug/L		05/19/21 17:45	05/21/21 07:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*66*		*35 - 100*	*05/19/21 17:45*	*05/21/21 07:07*	*1*
Nitrobenzene-d5 (Surr)	*24*		*22 - 117*	*05/19/21 17:45*	*05/21/21 07:07*	*1*
p-Terphenyl-d14 (Surr)	*59*		*31 - 119*	*05/19/21 17:45*	*05/21/21 07:07*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/19/21 08:09	05/19/21 13:03	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/19/21 08:09	05/19/21 13:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*82*		*28 - 140*	*05/19/21 08:09*	*05/19/21 13:03*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**1600**		50	30	ug/L		05/19/21 08:09	05/19/21 13:27	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*89*		*28 - 140*	*05/19/21 08:09*	*05/19/21 13:27*	*10*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND	*+	0.029	0.0095	ug/L		05/17/21 17:10	05/18/21 09:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*119*		*46 - 136*	*05/17/21 17:10*	*05/18/21 09:51*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*138*	*S1+*	*46 - 136*	*05/17/21 17:10*	*05/18/21 09:51*	*1*

Client Sample ID: S-193_20210512

Lab Sample ID: 410-39710-7

Date Collected: 05/12/21 14:00
Matrix: Water
Date Received: 05/13/21 17:55

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	36000		5000	1500	ug/L			05/19/21 09:19	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	120000		500	96	ug/L		05/17/21 02:07	05/17/21 10:46	1
Iron	42000		200	40	ug/L		05/17/21 02:07	05/17/21 10:46	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.14	J	0.52	0.073	ug/L		05/17/21 04:46	05/18/21 11:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	160000		8000	8000	ug/L			05/15/21 05:12	1
Total Kjeldahl Nitrogen	2900		1000	500	ug/L		05/14/21 13:31	05/21/21 14:17	1
Total Carbon	63000		10000	5000	ug/L			05/18/21 23:55	10
Total Organic Carbon	11000		1000	500	ug/L			05/15/21 04:18	1
Total Inorganic Carbon	52000		2000	600	ug/L			05/21/21 10:54	1

Client Sample ID: TB_20210513

Lab Sample ID: 410-39710-8

Date Collected: 05/03/21 00:00
Matrix: Water
Date Received: 05/13/21 17:55

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		1.0	0.20	ug/L			05/18/21 14:58	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/18/21 14:58	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/18/21 14:58	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/18/21 14:58	1
Toluene	ND		1.0	0.20	ug/L			05/18/21 14:58	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/18/21 14:58	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/18/21 14:58	1
Benzene	ND		1.0	0.20	ug/L			05/18/21 14:58	1
Naphthalene	ND		5.0	1.0	ug/L			05/18/21 14:58	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/18/21 14:58	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/18/21 14:58	1
t-Butyl alcohol	ND		50	12	ug/L			05/18/21 14:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*80 - 120*		*05/18/21 14:58*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*05/18/21 14:58*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 120*		*05/18/21 14:58*	*1*
Toluene-d8 (Surr)	*107*		*80 - 120*		*05/18/21 14:58*	*1*

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39710-1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-39710-1	S-440_20210512	96	99	95	104
410-39710-2	S-78SRTF_20210512	98	101	94	105
410-39710-2 - DL	S-78SRTF_20210512	98	98	97	104
410-39710-3	S-142SRTF_20210512	99	101	96	103
410-39710-4	S-376_SL_20210512	94	102	94	106
410-39710-4 - DL	S-376_SL_20210512	98	103	97	105
410-39710-5	S-146SRTF_20210512	97	98	98	104
410-39710-6	S-147SRTF_20210512	98	99	96	102
410-39710-7	S-193_20210512	99	100	96	105
410-39710-8	TB_20210513	113	98	107	107
LCS 410-127638/4	Lab Control Sample	119	102	108	108
LCS 410-128615/4	Lab Control Sample	102	104	99	104
LCS 410-128618/4	Lab Control Sample	102	103	99	103
LCSD 410-127638/5	Lab Control Sample Dup	118	105	107	109
LCSD 410-128615/5	Lab Control Sample Dup	100	100	95	102
LCSD 410-128618/5	Lab Control Sample Dup	100	101	96	104
MB 410-127638/6	Method Blank	114	98	106	108
MB 410-128615/6	Method Blank	97	99	98	100
MB 410-128618/6	Method Blank	96	101	96	101

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(35-100)	(22-117)	(31-119)
410-39710-1	S-440_20210512	79	87	61
410-39710-2	S-78SRTF_20210512	75	77	82
410-39710-3	S-142SRTF_20210512	77	79	75
410-39710-4	S-376_SL_20210512	79	14 S1-	61
410-39710-4 - DL	S-376_SL_20210512	82	14 S1-	62
410-39710-5	S-146SRTF_20210512	77	80	83
410-39710-6	S-147SRTF_20210512	73	77	81
410-39710-7	S-193_20210512	66	24	59
LCS 410-128350/2-A	Lab Control Sample	69	81	101
MB 410-128350/1-A	Method Blank	74	85	102

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Surrogate Summary

Client: Stantec Consulting Corp. Job ID: 410-39710-1
Project/Site: Former PES Annual GWS

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	Propene1 (28-140)							
410-39710-1	S-440_20210512	80							
410-39710-2	S-78SRTF_20210512	79							
410-39710-2 - DL	S-78SRTF_20210512	92							
410-39710-3	S-142SRTF_20210512	76							
410-39710-4	S-376_SL_20210512	84							
410-39710-4 - DL	S-376_SL_20210512	95							
410-39710-5	S-146SRTF_20210512	73							
410-39710-6	S-147SRTF_20210512	74							
410-39710-6 - DL	S-147SRTF_20210512	77							
410-39710-7	S-193_20210512	82							
410-39710-7 - DL	S-193_20210512	89							
LCS 410-128059/2-A	Lab Control Sample	108							
LCSD 410-128059/3-A	Lab Control Sample Dup	106							
MB 410-128059/1-A	Method Blank	110							

Surrogate Legend

Propene = Propene

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	1122TCA1 (46-136)	1122TCA2 (46-136)						
410-39710-1	S-440_20210512	123	127						
410-39710-2	S-78SRTF_20210512	123	126						
410-39710-3	S-142SRTF_20210512	115	117						
410-39710-4	S-376_SL_20210512	164 S1+	133						
410-39710-5	S-146SRTF_20210512	116	119						
410-39710-6	S-147SRTF_20210512	109	113						
410-39710-7	S-193_20210512	119	138 S1+						
LCS 410-127214/2-A	Lab Control Sample	117	116						
LCSD 410-127214/3-A	Lab Control Sample Dup	110	112						
MB 410-127214/1-A	Method Blank	109	112						

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-127638/6
Matrix: Water
Analysis Batch: 127638

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		1.0	0.20	ug/L			05/18/21 13:57	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/18/21 13:57	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/18/21 13:57	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/18/21 13:57	1
Toluene	ND		1.0	0.20	ug/L			05/18/21 13:57	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/18/21 13:57	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/18/21 13:57	1
Benzene	ND		1.0	0.20	ug/L			05/18/21 13:57	1
Naphthalene	ND		5.0	1.0	ug/L			05/18/21 13:57	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/18/21 13:57	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/18/21 13:57	1
t-Butyl alcohol	ND		50	12	ug/L			05/18/21 13:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*80 - 120*		*05/18/21 13:57*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*05/18/21 13:57*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 120*		*05/18/21 13:57*	*1*
Toluene-d8 (Surr)	*108*		*80 - 120*		*05/18/21 13:57*	*1*

Lab Sample ID: LCS 410-127638/4
Matrix: Water
Analysis Batch: 127638

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide			20.0	18.0		ug/L		90	77 - 120		
Ethylbenzene			20.0	19.7		ug/L		98	80 - 120		
1,2-Dichloroethane			20.0	21.9		ug/L		110	73 - 124		
1,3,5-Trimethylbenzene			20.0	19.2		ug/L		96	75 - 120		
Toluene			20.0	19.6		ug/L		98	80 - 120		
Xylenes, Total			60.0	57.1		ug/L		95	80 - 120		
Methyl tert-butyl ether			20.0	18.5		ug/L		93	69 - 122		
Benzene			20.0	19.7		ug/L		98	80 - 120		
Naphthalene			20.0	14.8		ug/L		74	53 - 124		
1,2,4-Trimethylbenzene			20.0	19.3		ug/L		96	75 - 120		
Isopropylbenzene			20.0	19.5		ug/L		98	80 - 120		
t-Butyl alcohol			200	194		ug/L		97	60 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*119*		*80 - 120*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*
Dibromofluoromethane (Surr)	*108*		*80 - 120*
Toluene-d8 (Surr)	*108*		*80 - 120*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-127638/5
Matrix: Water
Analysis Batch: 127638

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide			20.0	17.7		ug/L		88	77 - 120	2	30
Ethylbenzene			20.0	20.0		ug/L		100	80 - 120	2	30
1,2-Dichloroethane			20.0	21.4		ug/L		107	73 - 124	2	30
1,3,5-Trimethylbenzene			20.0	18.9		ug/L		95	75 - 120	2	30
Toluene			20.0	19.7		ug/L		99	80 - 120	1	30
Xylenes, Total			60.0	58.4		ug/L		97	80 - 120	2	30
Methyl tert-butyl ether			20.0	17.9		ug/L		90	69 - 122	3	30
Benzene			20.0	19.5		ug/L		98	80 - 120	1	30
Naphthalene			20.0	14.2		ug/L		71	53 - 124	4	30
1,2,4-Trimethylbenzene			20.0	19.0		ug/L		95	75 - 120	1	30
Isopropylbenzene			20.0	19.8		ug/L		99	80 - 120	2	30
t-Butyl alcohol			200	190		ug/L		95	60 - 130	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*118*		*80 - 120*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*
Dibromofluoromethane (Surr)	*107*		*80 - 120*
Toluene-d8 (Surr)	*109*		*80 - 120*

Lab Sample ID: MB 410-128615/6
Matrix: Water
Analysis Batch: 128615

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/20/21 10:35	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/20/21 10:35	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/20/21 10:35	1
Toluene	ND		1.0	0.20	ug/L			05/20/21 10:35	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/20/21 10:35	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/20/21 10:35	1
Benzene	ND		1.0	0.20	ug/L			05/20/21 10:35	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/20/21 10:35	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/20/21 10:35	1
t-Butyl alcohol	ND		50	12	ug/L			05/20/21 10:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*80 - 120*		*05/20/21 10:35*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*05/20/21 10:35*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*05/20/21 10:35*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/20/21 10:35*	*1*

Lab Sample ID: LCS 410-128615/4
Matrix: Water
Analysis Batch: 128615

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylbenzene			20.0	18.8		ug/L		94	80 - 120		
1,2-Dichloroethane			20.0	17.7		ug/L		89	73 - 124		

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-128615/4
Matrix: Water
Analysis Batch: 128615

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,3,5-Trimethylbenzene			20.0	17.1		ug/L		86	75 - 120		
Toluene			20.0	19.3		ug/L		97	80 - 120		
Xylenes, Total			60.0	53.9		ug/L		90	80 - 120		
Methyl tert-butyl ether			20.0	19.5		ug/L		97	69 - 122		
Benzene			20.0	19.6		ug/L		98	80 - 120		
1,2,4-Trimethylbenzene			20.0	17.3		ug/L		86	75 - 120		
Isopropylbenzene			20.0	17.5		ug/L		88	80 - 120		
t-Butyl alcohol			200	179		ug/L		90	60 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*
Dibromofluoromethane (Surr)	*99*		*80 - 120*
Toluene-d8 (Surr)	*104*		*80 - 120*

Lab Sample ID: LCSD 410-128615/5
Matrix: Water
Analysis Batch: 128615

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene			20.0	19.0		ug/L		95	80 - 120	1	30
1,2-Dichloroethane			20.0	17.5		ug/L		87	73 - 124	1	30
1,3,5-Trimethylbenzene			20.0	17.1		ug/L		86	75 - 120	0	30
Toluene			20.0	19.3		ug/L		97	80 - 120	0	30
Xylenes, Total			60.0	53.1		ug/L		89	80 - 120	1	30
Methyl tert-butyl ether			20.0	18.6		ug/L		93	69 - 122	4	30
Benzene			20.0	19.3		ug/L		97	80 - 120	2	30
1,2,4-Trimethylbenzene			20.0	17.0		ug/L		85	75 - 120	1	30
Isopropylbenzene			20.0	17.5		ug/L		87	80 - 120	0	30
t-Butyl alcohol			200	183		ug/L		91	60 - 130	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*80 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

Lab Sample ID: MB 410-128618/6
Matrix: Water
Analysis Batch: 128618

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/20/21 10:45	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/20/21 10:45	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/20/21 10:45	1
Toluene	ND		1.0	0.20	ug/L			05/20/21 10:45	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/20/21 10:45	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/20/21 10:45	1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-128618/6
Matrix: Water
Analysis Batch: 128618

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.20	ug/L			05/20/21 10:45	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/20/21 10:45	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/20/21 10:45	1
t-Butyl alcohol	ND		50	12	ug/L			05/20/21 10:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*80 - 120*		*05/20/21 10:45*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*05/20/21 10:45*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*05/20/21 10:45*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/20/21 10:45*	*1*

Lab Sample ID: LCS 410-128618/4
Matrix: Water
Analysis Batch: 128618

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylbenzene			20.0	20.3		ug/L		101	80 - 120		
1,2-Dichloroethane			20.0	18.7		ug/L		94	73 - 124		
1,3,5-Trimethylbenzene			20.0	18.4		ug/L		92	75 - 120		
Toluene			20.0	20.8		ug/L		104	80 - 120		
Xylenes, Total			60.0	58.0		ug/L		97	80 - 120		
Methyl tert-butyl ether			20.0	19.6		ug/L		98	69 - 122		
Benzene			20.0	21.3		ug/L		106	80 - 120		
1,2,4-Trimethylbenzene			20.0	18.4		ug/L		92	75 - 120		
Isopropylbenzene			20.0	18.9		ug/L		94	80 - 120		
t-Butyl alcohol			200	201		ug/L		100	60 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*
Dibromofluoromethane (Surr)	*99*		*80 - 120*
Toluene-d8 (Surr)	*103*		*80 - 120*

Lab Sample ID: LCSD 410-128618/5
Matrix: Water
Analysis Batch: 128618

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene			20.0	17.7		ug/L		88	80 - 120	14	30
1,2-Dichloroethane			20.0	15.6		ug/L		78	73 - 124	18	30
1,3,5-Trimethylbenzene			20.0	16.1		ug/L		80	75 - 120	14	30
Toluene			20.0	17.8		ug/L		89	80 - 120	15	30
Xylenes, Total			60.0	50.2		ug/L		84	80 - 120	14	30
Methyl tert-butyl ether			20.0	16.8		ug/L		84	69 - 122	15	30
Benzene			20.0	18.4		ug/L		92	80 - 120	14	30
1,2,4-Trimethylbenzene			20.0	15.9		ug/L		80	75 - 120	14	30
Isopropylbenzene			20.0	16.3		ug/L		81	80 - 120	15	30
t-Butyl alcohol			200	169		ug/L		84	60 - 130	17	30

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-128618/5
Matrix: Water
Analysis Batch: 128618

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		80 - 120
4-Bromofluorobenzene (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	96		80 - 120
Toluene-d8 (Surr)	104		80 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-128350/1-A
Matrix: Water
Analysis Batch: 128474

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 128350

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/19/21 17:45	05/20/21 02:20	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/19/21 17:45	05/20/21 02:20	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/19/21 17:45	05/20/21 02:20	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/19/21 17:45	05/20/21 02:20	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/19/21 17:45	05/20/21 02:20	1
Chrysene	ND		0.50	0.10	ug/L		05/19/21 17:45	05/20/21 02:20	1
Fluorene	ND		0.50	0.12	ug/L		05/19/21 17:45	05/20/21 02:20	1
Naphthalene	ND		0.50	0.10	ug/L		05/19/21 17:45	05/20/21 02:20	1
Phenanthrene	ND		0.50	0.11	ug/L		05/19/21 17:45	05/20/21 02:20	1
Pyrene	ND		0.50	0.10	ug/L		05/19/21 17:45	05/20/21 02:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	74		35 - 100	05/19/21 17:45	05/20/21 02:20	1
Nitrobenzene-d5 (Surr)	85		22 - 117	05/19/21 17:45	05/20/21 02:20	1
p-Terphenyl-d14 (Surr)	102		31 - 119	05/19/21 17:45	05/20/21 02:20	1

Lab Sample ID: LCS 410-128350/2-A
Matrix: Water
Analysis Batch: 128474

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 128350

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.0	48.7		ug/L		97	73 - 120
Benzo[a]anthracene	50.0	55.2		ug/L		110	74 - 120
Benzo[a]pyrene	50.0	55.0		ug/L		110	60 - 116
Benzo[b]fluoranthene	50.0	48.6		ug/L		97	71 - 120
Benzo[g,h,i]perylene	50.0	52.7		ug/L		105	60 - 120
Chrysene	50.0	56.1		ug/L		112	76 - 120
Fluorene	50.0	47.7		ug/L		95	64 - 120
Naphthalene	50.0	39.0		ug/L		78	51 - 102
Phenanthrene	50.0	48.2		ug/L		96	72 - 120
Pyrene	50.0	50.4		ug/L		101	73 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	69		35 - 100
Nitrobenzene-d5 (Surr)	81		22 - 117
p-Terphenyl-d14 (Surr)	101		31 - 119

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-128059/1-A
Matrix: Water
Analysis Batch: 128008

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 128059

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/19/21 08:09	05/19/21 08:09	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/19/21 08:09	05/19/21 08:09	1
Methane (1C)	ND		5.0	3.0	ug/L		05/19/21 08:09	05/19/21 08:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*110*		*28 - 140*	*05/19/21 08:09*	*05/19/21 08:09*	*1*

Lab Sample ID: LCS 410-128059/2-A
Matrix: Water
Analysis Batch: 128008

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 128059

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethane (1C)			59.4	62.1		ug/L		105	85 - 115		
Ethene (1C)			60.4	62.1		ug/L		103	83 - 115		
Methane (1C)			59.4	64.5		ug/L		109	85 - 115		

Surrogate		*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)		*108*		*28 - 140*

Lab Sample ID: LCSD 410-128059/3-A
Matrix: Water
Analysis Batch: 128008

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 128059

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	61.1		ug/L		103	85 - 115	2	20
Ethene (1C)			60.4	61.3		ug/L		102	83 - 115	1	20
Methane (1C)			59.4	62.4		ug/L		105	85 - 115	3	20

Surrogate		*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)		*106*		*28 - 140*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-127214/1-A
Matrix: Water
Analysis Batch: 127398

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 127214

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		05/17/21 17:10	05/18/21 06:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*109*		*46 - 136*	*05/17/21 17:10*	*05/18/21 06:48*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*112*		*46 - 136*	*05/17/21 17:10*	*05/18/21 06:48*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: LCS 410-127214/2-A
Matrix: Water
Analysis Batch: 127398

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 127214

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.210	*+	ug/L		164	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*117*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*116*		*46 - 136*

Lab Sample ID: LCSD 410-127214/3-A
Matrix: Water
Analysis Batch: 127398

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 127214

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.203	*+	ug/L		159	60 - 140	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*110*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*112*		*46 - 136*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 410-126595/4
Matrix: Water
Analysis Batch: 126595

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1000	300	ug/L			05/14/21 15:01	1

Lab Sample ID: LCS 410-126595/3
Matrix: Water
Analysis Batch: 126595

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			7500	7270		ug/L		97	90 - 110		

Lab Sample ID: 410-39710-4 MS
Matrix: Water
Analysis Batch: 126595

Client Sample ID: S-376_SL_20210512
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	16000		25000	43400		ug/L		110	90 - 110		

Lab Sample ID: 410-39710-4 DU
Matrix: Water
Analysis Batch: 126595

Client Sample ID: S-376_SL_20210512
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfate	16000		15800		ug/L		0.4	15

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 410-127985/4
Matrix: Water
Analysis Batch: 127985

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1000	300	ug/L			05/19/21 06:06	1

Lab Sample ID: LCS 410-127985/3
Matrix: Water
Analysis Batch: 127985

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	7500	7720		ug/L		103	90 - 110

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-126872/1-A
Matrix: Water
Analysis Batch: 127100

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 126872

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		500	96	ug/L		05/17/21 02:07	05/17/21 09:58	1
Iron	ND		200	40	ug/L		05/17/21 02:07	05/17/21 09:58	1

Lab Sample ID: LCS 410-126872/2-A
Matrix: Water
Analysis Batch: 127100

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 126872

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	400	408	J	ug/L		102	80 - 120
Iron	400	419		ug/L		105	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 410-126887/1-A
Matrix: Water
Analysis Batch: 127678

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 126887

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/17/21 04:46	05/18/21 10:46	1

Lab Sample ID: LCS 410-126887/2-A
Matrix: Water
Analysis Batch: 127678

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 126887

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	30.0	30.5		ug/L		102	90 - 115

Lab Sample ID: LCSD 410-126887/3-A
Matrix: Water
Analysis Batch: 127678

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 126887

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	30.0	30.6		ug/L		102	90 - 115	0	20

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 410-127172/90
Matrix: Water
Analysis Batch: 127172

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8000	8000	ug/L			05/15/21 02:26	1

Lab Sample ID: LCS 410-127172/91
Matrix: Water
Analysis Batch: 127172

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	189000	188000		ug/L		100	82 - 106

Method: 5310 B-2011 - Carbon, Total and Total Inorganic

Lab Sample ID: MB 410-128137/5
Matrix: Water
Analysis Batch: 128137

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Carbon	ND		1000	500	ug/L			05/18/21 18:53	1

Lab Sample ID: LCS 410-128137/4
Matrix: Water
Analysis Batch: 128137

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Carbon	25000	25800		ug/L		103	91 - 115

Method: 5310C-2011 - Total Organic Carbon/Persulfate - Ultrav

Lab Sample ID: MB 410-126741/37
Matrix: Water
Analysis Batch: 126741

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	500	ug/L			05/15/21 02:41	1

Lab Sample ID: MB 410-126741/5
Matrix: Water
Analysis Batch: 126741

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	500	ug/L			05/14/21 18:02	1

Lab Sample ID: LCS 410-126741/36
Matrix: Water
Analysis Batch: 126741

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	25000	23900		ug/L		95	91 - 113

Method: 5310C-2011 - Total Organic Carbon/Persulfate - Ultrav (Continued)

Lab Sample ID: LCS 410-126741/4
Matrix: Water
Analysis Batch: 126741

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon			25000	24000		ug/L		96	91 - 113		

Lab Sample ID: 410-39710-5 MS
Matrix: Water
Analysis Batch: 126741

Client Sample ID: S-146SRTF_20210512
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon	9300		10000	19500		ug/L		102	91 - 113		

Lab Sample ID: 410-39710-5 DU
Matrix: Water
Analysis Batch: 126741

Client Sample ID: S-146SRTF_20210512
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Organic Carbon	9300			9410		ug/L				2	3

Lab Sample ID: MB 410-127613/5
Matrix: Water
Analysis Batch: 127613

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	500	ug/L			05/15/21 16:22	1

Lab Sample ID: LCS 410-127613/4
Matrix: Water
Analysis Batch: 127613

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon			25000	25600		ug/L		102	91 - 113		

GC/MS VOA

Analysis Batch: 127638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39710-8	TB_20210513	Total/NA	Water	8260C/UST	
MB 410-127638/6	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-127638/4	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-127638/5	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

Analysis Batch: 128615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39710-1	S-440_20210512	Total/NA	Water	8260C/UST	
410-39710-2	S-78SRTF_20210512	Total/NA	Water	8260C/UST	
410-39710-2 - DL	S-78SRTF_20210512	Total/NA	Water	8260C/UST	
410-39710-3	S-142SRTF_20210512	Total/NA	Water	8260C/UST	
MB 410-128615/6	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-128615/4	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-128615/5	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

Analysis Batch: 128618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39710-4	S-376_SL_20210512	Total/NA	Water	8260C/UST	
410-39710-4 - DL	S-376_SL_20210512	Total/NA	Water	8260C/UST	
410-39710-5	S-146SRTF_20210512	Total/NA	Water	8260C/UST	
410-39710-6	S-147SRTF_20210512	Total/NA	Water	8260C/UST	
410-39710-7	S-193_20210512	Total/NA	Water	8260C/UST	
MB 410-128618/6	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-128618/4	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-128618/5	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

GC/MS Semi VOA

Prep Batch: 128350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39710-1	S-440_20210512	Total/NA	Water	3510C	
410-39710-2	S-78SRTF_20210512	Total/NA	Water	3510C	
410-39710-3	S-142SRTF_20210512	Total/NA	Water	3510C	
410-39710-4	S-376_SL_20210512	Total/NA	Water	3510C	
410-39710-4 - DL	S-376_SL_20210512	Total/NA	Water	3510C	
410-39710-5	S-146SRTF_20210512	Total/NA	Water	3510C	
410-39710-6	S-147SRTF_20210512	Total/NA	Water	3510C	
410-39710-7	S-193_20210512	Total/NA	Water	3510C	
MB 410-128350/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-128350/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 128474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-128350/1-A	Method Blank	Total/NA	Water	8270D	128350
LCS 410-128350/2-A	Lab Control Sample	Total/NA	Water	8270D	128350

Analysis Batch: 128906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39710-1	S-440_20210512	Total/NA	Water	8270D	128350
410-39710-2	S-78SRTF_20210512	Total/NA	Water	8270D	128350
410-39710-3	S-142SRTF_20210512	Total/NA	Water	8270D	128350

GC/MS Semi VOA (Continued)

Analysis Batch: 128906 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39710-4	S-376_SL_20210512	Total/NA	Water	8270D	128350
410-39710-4 - DL	S-376_SL_20210512	Total/NA	Water	8270D	128350
410-39710-5	S-146SRTF_20210512	Total/NA	Water	8270D	128350
410-39710-6	S-147SRTF_20210512	Total/NA	Water	8270D	128350
410-39710-7	S-193_20210512	Total/NA	Water	8270D	128350

GC VOA

Analysis Batch: 128008

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39710-1	S-440_20210512	Total/NA	Water	RSK-175	128059
410-39710-2	S-78SRTF_20210512	Total/NA	Water	RSK-175	128059
410-39710-2 - DL	S-78SRTF_20210512	Total/NA	Water	RSK-175	128059
410-39710-3	S-142SRTF_20210512	Total/NA	Water	RSK-175	128059
410-39710-4	S-376_SL_20210512	Total/NA	Water	RSK-175	128059
410-39710-4 - DL	S-376_SL_20210512	Total/NA	Water	RSK-175	128059
410-39710-5	S-146SRTF_20210512	Total/NA	Water	RSK-175	128059
410-39710-6	S-147SRTF_20210512	Total/NA	Water	RSK-175	128059
410-39710-6 - DL	S-147SRTF_20210512	Total/NA	Water	RSK-175	128059
410-39710-7	S-193_20210512	Total/NA	Water	RSK-175	128059
410-39710-7 - DL	S-193_20210512	Total/NA	Water	RSK-175	128059
MB 410-128059/1-A	Method Blank	Total/NA	Water	RSK-175	128059
LCS 410-128059/2-A	Lab Control Sample	Total/NA	Water	RSK-175	128059
LCSD 410-128059/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	128059

Prep Batch: 128059

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39710-1	S-440_20210512	Total/NA	Water	RSK-175	
410-39710-2 - DL	S-78SRTF_20210512	Total/NA	Water	RSK-175	
410-39710-2	S-78SRTF_20210512	Total/NA	Water	RSK-175	
410-39710-3	S-142SRTF_20210512	Total/NA	Water	RSK-175	
410-39710-4 - DL	S-376_SL_20210512	Total/NA	Water	RSK-175	
410-39710-4	S-376_SL_20210512	Total/NA	Water	RSK-175	
410-39710-5	S-146SRTF_20210512	Total/NA	Water	RSK-175	
410-39710-6	S-147SRTF_20210512	Total/NA	Water	RSK-175	
410-39710-6 - DL	S-147SRTF_20210512	Total/NA	Water	RSK-175	
410-39710-7	S-193_20210512	Total/NA	Water	RSK-175	
410-39710-7 - DL	S-193_20210512	Total/NA	Water	RSK-175	
MB 410-128059/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-128059/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-128059/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

GC Semi VOA

Prep Batch: 127214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39710-1	S-440_20210512	Total/NA	Water	8011	
410-39710-2	S-78SRTF_20210512	Total/NA	Water	8011	
410-39710-3	S-142SRTF_20210512	Total/NA	Water	8011	
410-39710-4	S-376_SL_20210512	Total/NA	Water	8011	
410-39710-5	S-146SRTF_20210512	Total/NA	Water	8011	
410-39710-6	S-147SRTF_20210512	Total/NA	Water	8011	

GC Semi VOA (Continued)

Prep Batch: 127214 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39710-7	S-193_20210512	Total/NA	Water	8011	
MB 410-127214/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-127214/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-127214/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 127398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39710-1	S-440_20210512	Total/NA	Water	8011	127214
410-39710-2	S-78SRTF_20210512	Total/NA	Water	8011	127214
410-39710-3	S-142SRTF_20210512	Total/NA	Water	8011	127214
410-39710-4	S-376_SL_20210512	Total/NA	Water	8011	127214
410-39710-5	S-146SRTF_20210512	Total/NA	Water	8011	127214
410-39710-6	S-147SRTF_20210512	Total/NA	Water	8011	127214
410-39710-7	S-193_20210512	Total/NA	Water	8011	127214
MB 410-127214/1-A	Method Blank	Total/NA	Water	8011	127214
LCS 410-127214/2-A	Lab Control Sample	Total/NA	Water	8011	127214
LCSD 410-127214/3-A	Lab Control Sample Dup	Total/NA	Water	8011	127214

HPLC/IC

Analysis Batch: 126595

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39710-1	S-440_20210512	Total/NA	Water	EPA 300.0 R2.1	
410-39710-2	S-78SRTF_20210512	Total/NA	Water	EPA 300.0 R2.1	
410-39710-3	S-142SRTF_20210512	Total/NA	Water	EPA 300.0 R2.1	
410-39710-4	S-376_SL_20210512	Total/NA	Water	EPA 300.0 R2.1	
410-39710-5	S-146SRTF_20210512	Total/NA	Water	EPA 300.0 R2.1	
410-39710-6	S-147SRTF_20210512	Total/NA	Water	EPA 300.0 R2.1	
MB 410-126595/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-126595/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
410-39710-4 MS	S-376_SL_20210512	Total/NA	Water	EPA 300.0 R2.1	
410-39710-4 DU	S-376_SL_20210512	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 127985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39710-7	S-193_20210512	Total/NA	Water	EPA 300.0 R2.1	
MB 410-127985/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-127985/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 126872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39710-1	S-440_20210512	Total Recoverable	Water	3005A	
410-39710-2	S-78SRTF_20210512	Total Recoverable	Water	3005A	
410-39710-3	S-142SRTF_20210512	Total Recoverable	Water	3005A	
410-39710-4	S-376_SL_20210512	Total Recoverable	Water	3005A	
410-39710-5	S-146SRTF_20210512	Total Recoverable	Water	3005A	
410-39710-6	S-147SRTF_20210512	Total Recoverable	Water	3005A	
410-39710-7	S-193_20210512	Total Recoverable	Water	3005A	
MB 410-126872/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-126872/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Metals

Prep Batch: 126887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39710-1	S-440_20210512	Dissolved	Water	Non-Digest Prep	
410-39710-2	S-78SRTF_20210512	Dissolved	Water	Non-Digest Prep	
410-39710-3	S-142SRTF_20210512	Dissolved	Water	Non-Digest Prep	
410-39710-4	S-376_SL_20210512	Dissolved	Water	Non-Digest Prep	
410-39710-5	S-146SRTF_20210512	Dissolved	Water	Non-Digest Prep	
410-39710-6	S-147SRTF_20210512	Dissolved	Water	Non-Digest Prep	
410-39710-7	S-193_20210512	Dissolved	Water	Non-Digest Prep	
MB 410-126887/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-126887/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	
LCSD 410-126887/3-A	Lab Control Sample Dup	Total/NA	Water	Non-Digest Prep	

Analysis Batch: 127100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39710-1	S-440_20210512	Total Recoverable	Water	6010C	126872
410-39710-2	S-78SRTF_20210512	Total Recoverable	Water	6010C	126872
410-39710-3	S-142SRTF_20210512	Total Recoverable	Water	6010C	126872
410-39710-4	S-376_SL_20210512	Total Recoverable	Water	6010C	126872
410-39710-5	S-146SRTF_20210512	Total Recoverable	Water	6010C	126872
410-39710-6	S-147SRTF_20210512	Total Recoverable	Water	6010C	126872
410-39710-7	S-193_20210512	Total Recoverable	Water	6010C	126872
MB 410-126872/1-A	Method Blank	Total Recoverable	Water	6010C	126872
LCS 410-126872/2-A	Lab Control Sample	Total Recoverable	Water	6010C	126872

Analysis Batch: 127678

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39710-1	S-440_20210512	Dissolved	Water	6020A	126887
410-39710-2	S-78SRTF_20210512	Dissolved	Water	6020A	126887
410-39710-3	S-142SRTF_20210512	Dissolved	Water	6020A	126887
410-39710-4	S-376_SL_20210512	Dissolved	Water	6020A	126887
410-39710-5	S-146SRTF_20210512	Dissolved	Water	6020A	126887
410-39710-6	S-147SRTF_20210512	Dissolved	Water	6020A	126887
410-39710-7	S-193_20210512	Dissolved	Water	6020A	126887
MB 410-126887/1-A	Method Blank	Total/NA	Water	6020A	126887
LCS 410-126887/2-A	Lab Control Sample	Total/NA	Water	6020A	126887
LCSD 410-126887/3-A	Lab Control Sample Dup	Total/NA	Water	6020A	126887

General Chemistry

Prep Batch: 126529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39710-1	S-440_20210512	Total/NA	Water	351.2	
410-39710-2	S-78SRTF_20210512	Total/NA	Water	351.2	
410-39710-3	S-142SRTF_20210512	Total/NA	Water	351.2	
410-39710-4	S-376_SL_20210512	Total/NA	Water	351.2	
410-39710-5	S-146SRTF_20210512	Total/NA	Water	351.2	
410-39710-6	S-147SRTF_20210512	Total/NA	Water	351.2	
410-39710-7	S-193_20210512	Total/NA	Water	351.2	

Analysis Batch: 126741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39710-1	S-440_20210512	Total/NA	Water	5310C-2011	

General Chemistry (Continued)

Analysis Batch: 126741 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39710-2	S-78SRTF_20210512	Total/NA	Water	5310C-2011	
410-39710-3	S-142SRTF_20210512	Total/NA	Water	5310C-2011	
410-39710-5	S-146SRTF_20210512	Total/NA	Water	5310C-2011	
410-39710-6	S-147SRTF_20210512	Total/NA	Water	5310C-2011	
410-39710-7	S-193_20210512	Total/NA	Water	5310C-2011	
MB 410-126741/37	Method Blank	Total/NA	Water	5310C-2011	
MB 410-126741/5	Method Blank	Total/NA	Water	5310C-2011	
LCS 410-126741/36	Lab Control Sample	Total/NA	Water	5310C-2011	
LCS 410-126741/4	Lab Control Sample	Total/NA	Water	5310C-2011	
410-39710-5 MS	S-146SRTF_20210512	Total/NA	Water	5310C-2011	
410-39710-5 DU	S-146SRTF_20210512	Total/NA	Water	5310C-2011	

Analysis Batch: 127172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39710-1	S-440_20210512	Total/NA	Water	2320B-2011	
410-39710-2	S-78SRTF_20210512	Total/NA	Water	2320B-2011	
410-39710-3	S-142SRTF_20210512	Total/NA	Water	2320B-2011	
410-39710-4	S-376_SL_20210512	Total/NA	Water	2320B-2011	
410-39710-5	S-146SRTF_20210512	Total/NA	Water	2320B-2011	
410-39710-6	S-147SRTF_20210512	Total/NA	Water	2320B-2011	
410-39710-7	S-193_20210512	Total/NA	Water	2320B-2011	
MB 410-127172/90	Method Blank	Total/NA	Water	2320B-2011	
LCS 410-127172/91	Lab Control Sample	Total/NA	Water	2320B-2011	

Analysis Batch: 127613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39710-4	S-376_SL_20210512	Total/NA	Water	5310C-2011	
MB 410-127613/5	Method Blank	Total/NA	Water	5310C-2011	
LCS 410-127613/4	Lab Control Sample	Total/NA	Water	5310C-2011	

Analysis Batch: 128137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39710-1	S-440_20210512	Total/NA	Water	5310 B-2011	
410-39710-2	S-78SRTF_20210512	Total/NA	Water	5310 B-2011	
410-39710-3	S-142SRTF_20210512	Total/NA	Water	5310 B-2011	
410-39710-4	S-376_SL_20210512	Total/NA	Water	5310 B-2011	
410-39710-5	S-146SRTF_20210512	Total/NA	Water	5310 B-2011	
410-39710-6	S-147SRTF_20210512	Total/NA	Water	5310 B-2011	
410-39710-7	S-193_20210512	Total/NA	Water	5310 B-2011	
MB 410-128137/5	Method Blank	Total/NA	Water	5310 B-2011	
LCS 410-128137/4	Lab Control Sample	Total/NA	Water	5310 B-2011	

Analysis Batch: 129241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39710-1	S-440_20210512	Total/NA	Water	SM5310C	
410-39710-2	S-78SRTF_20210512	Total/NA	Water	SM5310C	
410-39710-3	S-142SRTF_20210512	Total/NA	Water	SM5310C	
410-39710-4	S-376_SL_20210512	Total/NA	Water	SM5310C	
410-39710-5	S-146SRTF_20210512	Total/NA	Water	SM5310C	
410-39710-6	S-147SRTF_20210512	Total/NA	Water	SM5310C	
410-39710-7	S-193_20210512	Total/NA	Water	SM5310C	

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39710-1

General Chemistry

Analysis Batch: 129342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-39710-1	S-440_20210512	Total/NA	Water	351.2	126529
410-39710-2	S-78SRTF_20210512	Total/NA	Water	351.2	126529
410-39710-3	S-142SRTF_20210512	Total/NA	Water	351.2	126529
410-39710-4	S-376_SL_20210512	Total/NA	Water	351.2	126529
410-39710-5	S-146SRTF_20210512	Total/NA	Water	351.2	126529
410-39710-6	S-147SRTF_20210512	Total/NA	Water	351.2	126529
410-39710-7	S-193_20210512	Total/NA	Water	351.2	126529

Client Sample ID: S-440_20210512

Lab Sample ID: 410-39710-1

Date Collected: 05/12/21 09:25

Matrix: Water

Date Received: 05/13/21 17:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	128615	05/20/21 15:47	UKAD	ELLE
Total/NA	Prep	3510C			128350	05/19/21 17:45	DFX4	ELLE
Total/NA	Analysis	8270D		1	128906	05/21/21 03:45	UWHS	ELLE
Total/NA	Prep	RSK-175			128059	05/19/21 08:09	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	128008	05/19/21 09:58	LXF2	ELLE
Total/NA	Prep	8011			127214	05/17/21 17:10	QQ3P	ELLE
Total/NA	Analysis	8011		1	127398	05/18/21 08:11	AC3T	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	126595	05/14/21 17:24	W5UX	ELLE
Total Recoverable	Prep	3005A			126872	05/17/21 02:07	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	127100	05/17/21 10:27	WJM9	ELLE
Dissolved	Prep	Non-Digest Prep			126887	05/17/21 04:46	UJL8	ELLE
Dissolved	Analysis	6020A		1	127678	05/18/21 10:52	S8DY	ELLE
Total/NA	Analysis	2320B-2011		1	127172	05/15/21 04:18	DI9Q	ELLE
Total/NA	Prep	351.2			126529	05/14/21 13:31	F8AU	ELLE
Total/NA	Analysis	351.2		1	129342	05/21/21 14:14	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	128137	05/18/21 22:28	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	126741	05/15/21 01:03	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	129241	05/21/21 10:54	KGQ6	ELLE

Client Sample ID: S-78SRTF_20210512

Lab Sample ID: 410-39710-2

Date Collected: 05/12/21 08:35

Matrix: Water

Date Received: 05/13/21 17:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	128615	05/20/21 19:00	UKAD	ELLE
Total/NA	Analysis	8260C/UST	DL	50	128615	05/20/21 19:24	UKAD	ELLE
Total/NA	Prep	3510C			128350	05/19/21 17:45	DFX4	ELLE
Total/NA	Analysis	8270D		1	128906	05/21/21 04:14	UWHS	ELLE
Total/NA	Prep	RSK-175			128059	05/19/21 08:09	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	128008	05/19/21 10:17	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		128059	05/19/21 08:09	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	50	128008	05/19/21 10:35	LXF2	ELLE
Total/NA	Prep	8011			127214	05/17/21 17:10	QQ3P	ELLE
Total/NA	Analysis	8011		1	127398	05/18/21 08:28	AC3T	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	126595	05/14/21 18:09	W5UX	ELLE
Total Recoverable	Prep	3005A			126872	05/17/21 02:07	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	127100	05/17/21 10:36	WJM9	ELLE
Dissolved	Prep	Non-Digest Prep			126887	05/17/21 04:46	UJL8	ELLE
Dissolved	Analysis	6020A		1	127678	05/18/21 11:04	S8DY	ELLE
Total/NA	Analysis	2320B-2011		1	127172	05/15/21 04:26	DI9Q	ELLE
Total/NA	Prep	351.2			126529	05/14/21 13:31	F8AU	ELLE
Total/NA	Analysis	351.2		1	129342	05/21/21 14:15	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	128137	05/18/21 23:01	KGQ6	ELLE

Client Sample ID: S-78SRTF_20210512

Lab Sample ID: 410-39710-2

Date Collected: 05/12/21 08:35

Matrix: Water

Date Received: 05/13/21 17:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	5310C-2011		1	126741	05/15/21 01:19	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	129241	05/21/21 10:54	KGQ6	ELLE

Client Sample ID: S-142SRTF_20210512

Lab Sample ID: 410-39710-3

Date Collected: 05/12/21 10:05

Matrix: Water

Date Received: 05/13/21 17:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	128615	05/20/21 16:12	UKAD	ELLE
Total/NA	Prep	3510C			128350	05/19/21 17:45	DFX4	ELLE
Total/NA	Analysis	8270D		1	128906	05/21/21 04:43	UWHS	ELLE
Total/NA	Prep	RSK-175			128059	05/19/21 08:09	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	128008	05/19/21 10:53	LXF2	ELLE
Total/NA	Prep	8011			127214	05/17/21 17:10	QQ3P	ELLE
Total/NA	Analysis	8011		1	127398	05/18/21 08:44	AC3T	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	126595	05/14/21 18:31	W5UX	ELLE
Total Recoverable	Prep	3005A			126872	05/17/21 02:07	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	127100	05/17/21 10:23	WJM9	ELLE
Dissolved	Prep	Non-Digest Prep			126887	05/17/21 04:46	UJL8	ELLE
Dissolved	Analysis	6020A		1	127678	05/18/21 11:12	S8DY	ELLE
Total/NA	Analysis	2320B-2011		1	127172	05/15/21 04:33	DI9Q	ELLE
Total/NA	Prep	351.2			126529	05/14/21 13:31	F8AU	ELLE
Total/NA	Analysis	351.2		5	129342	05/21/21 15:32	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	128137	05/18/21 23:12	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	126741	05/15/21 01:35	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	129241	05/21/21 10:54	KGQ6	ELLE

Client Sample ID: S-376_SL_20210512

Lab Sample ID: 410-39710-4

Date Collected: 05/12/21 11:30

Matrix: Water

Date Received: 05/13/21 17:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		5	128618	05/20/21 19:11	LCW8	ELLE
Total/NA	Analysis	8260C/UST	DL	50	128618	05/20/21 19:35	LCW8	ELLE
Total/NA	Prep	3510C			128350	05/19/21 17:45	DFX4	ELLE
Total/NA	Analysis	8270D		1	128906	05/21/21 05:11	UWHS	ELLE
Total/NA	Prep	3510C	DL		128350	05/19/21 17:45	DFX4	ELLE
Total/NA	Analysis	8270D	DL	10	128906	05/21/21 05:40	UWHS	ELLE
Total/NA	Prep	RSK-175			128059	05/19/21 08:09	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	128008	05/19/21 11:30	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		128059	05/19/21 08:09	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	100	128008	05/19/21 11:49	LXF2	ELLE
Total/NA	Prep	8011			127214	05/17/21 17:10	QQ3P	ELLE
Total/NA	Analysis	8011		1	127398	05/18/21 09:01	AC3T	ELLE

Client Sample ID: S-376_SL_20210512

Lab Sample ID: 410-39710-4

Date Collected: 05/12/21 11:30

Matrix: Water

Date Received: 05/13/21 17:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		5	126595	05/14/21 18:53	W5UX	ELLE
Total Recoverable	Prep	3005A			126872	05/17/21 02:07	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	127100	05/17/21 10:56	WJM9	ELLE
Dissolved	Prep	Non-Digest Prep			126887	05/17/21 04:46	UJL8	ELLE
Dissolved	Analysis	6020A		1	127678	05/18/21 11:02	S8DY	ELLE
Total/NA	Analysis	2320B-2011		1	127172	05/15/21 04:40	DI9Q	ELLE
Total/NA	Prep	351.2			126529	05/14/21 13:31	F8AU	ELLE
Total/NA	Analysis	351.2		1	129342	05/21/21 14:15	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	128137	05/18/21 23:22	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	127613	05/15/21 20:34	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	129241	05/21/21 10:54	KGQ6	ELLE

Client Sample ID: S-146SRTF_20210512

Lab Sample ID: 410-39710-5

Date Collected: 05/12/21 11:40

Matrix: Water

Date Received: 05/13/21 17:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	128618	05/20/21 16:22	LCW8	ELLE
Total/NA	Prep	3510C			128350	05/19/21 17:45	DFX4	ELLE
Total/NA	Analysis	8270D		1	128906	05/21/21 06:09	UWHS	ELLE
Total/NA	Prep	RSK-175			128059	05/19/21 08:09	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	128008	05/19/21 12:07	LXF2	ELLE
Total/NA	Prep	8011			127214	05/17/21 17:10	QQ3P	ELLE
Total/NA	Analysis	8011		1	127398	05/18/21 09:18	AC3T	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	126595	05/14/21 19:26	W5UX	ELLE
Total Recoverable	Prep	3005A			126872	05/17/21 02:07	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	127100	05/17/21 10:49	WJM9	ELLE
Dissolved	Prep	Non-Digest Prep			126887	05/17/21 04:46	UJL8	ELLE
Dissolved	Analysis	6020A		1	127678	05/18/21 11:06	S8DY	ELLE
Total/NA	Analysis	2320B-2011		1	127172	05/15/21 04:48	DI9Q	ELLE
Total/NA	Prep	351.2			126529	05/14/21 13:31	F8AU	ELLE
Total/NA	Analysis	351.2		1	129342	05/21/21 14:16	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	128137	05/18/21 23:33	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	126741	05/15/21 02:57	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	129241	05/21/21 10:54	KGQ6	ELLE

Client Sample ID: S-147SRTF_20210512

Lab Sample ID: 410-39710-6

Date Collected: 05/12/21 14:10

Matrix: Water

Date Received: 05/13/21 17:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	128618	05/20/21 16:47	LCW8	ELLE
Total/NA	Prep	3510C			128350	05/19/21 17:45	DFX4	ELLE
Total/NA	Analysis	8270D		1	128906	05/21/21 06:38	UWHS	ELLE

Client Sample ID: S-147SRTF_20210512

Lab Sample ID: 410-39710-6

Date Collected: 05/12/21 14:10

Matrix: Water

Date Received: 05/13/21 17:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	RSK-175			128059	05/19/21 08:09	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	128008	05/19/21 12:26	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		128059	05/19/21 08:09	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	5	128008	05/19/21 12:45	LXF2	ELLE
Total/NA	Prep	8011			127214	05/17/21 17:10	QQ3P	ELLE
Total/NA	Analysis	8011		1	127398	05/18/21 09:34	AC3T	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	126595	05/14/21 20:11	W5UX	ELLE
Total Recoverable	Prep	3005A			126872	05/17/21 02:07	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	127100	05/17/21 11:02	WJM9	ELLE
Dissolved	Prep	Non-Digest Prep			126887	05/17/21 04:46	UJL8	ELLE
Dissolved	Analysis	6020A		1	127678	05/18/21 11:10	S8DY	ELLE
Total/NA	Analysis	2320B-2011		1	127172	05/15/21 05:06	DI9Q	ELLE
Total/NA	Prep	351.2			126529	05/14/21 13:31	F8AU	ELLE
Total/NA	Analysis	351.2		5	129342	05/21/21 15:33	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	128137	05/18/21 23:44	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	126741	05/15/21 04:02	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	129241	05/21/21 10:54	KGQ6	ELLE

Client Sample ID: S-193_20210512

Lab Sample ID: 410-39710-7

Date Collected: 05/12/21 14:00

Matrix: Water

Date Received: 05/13/21 17:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	128618	05/20/21 17:11	LCW8	ELLE
Total/NA	Prep	3510C			128350	05/19/21 17:45	DFX4	ELLE
Total/NA	Analysis	8270D		1	128906	05/21/21 07:07	UWHS	ELLE
Total/NA	Prep	RSK-175			128059	05/19/21 08:09	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	128008	05/19/21 13:03	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		128059	05/19/21 08:09	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	10	128008	05/19/21 13:27	LXF2	ELLE
Total/NA	Prep	8011			127214	05/17/21 17:10	QQ3P	ELLE
Total/NA	Analysis	8011		1	127398	05/18/21 09:51	AC3T	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	127985	05/19/21 09:19	GJ35	ELLE
Total Recoverable	Prep	3005A			126872	05/17/21 02:07	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	127100	05/17/21 10:46	WJM9	ELLE
Dissolved	Prep	Non-Digest Prep			126887	05/17/21 04:46	UJL8	ELLE
Dissolved	Analysis	6020A		1	127678	05/18/21 11:14	S8DY	ELLE
Total/NA	Analysis	2320B-2011		1	127172	05/15/21 05:12	DI9Q	ELLE
Total/NA	Prep	351.2			126529	05/14/21 13:31	F8AU	ELLE
Total/NA	Analysis	351.2		1	129342	05/21/21 14:17	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		10	128137	05/18/21 23:55	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		1	126741	05/15/21 04:18	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	129241	05/21/21 10:54	KGQ6	ELLE

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39710-1

Client Sample ID: TB_20210513
Date Collected: 05/03/21 00:00
Date Received: 05/13/21 17:55

Lab Sample ID: 410-39710-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	127638	05/18/21 14:58	UKAD	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39710-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
5310 B-2011		Water	Total Carbon
SM5310C		Water	Total Inorganic Carbon

Method Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39710-1

Method	Method Description	Protocol	Laboratory
8260C/UST	Volatile Organic Compounds (GC/MS)	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
RSK-175	Dissolved Gases (GC)	RSK	ELLE
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	ELLE
6010C	Metals (ICP)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
2320B-2011	Alkalinity, Total	SM	ELLE
351.2	Nitrogen, Total Kjeldahl	MCAWW	ELLE
5310 B-2011	Carbon, Total and Total Inorganic	SM	ELLE
5310C-2011	Total Organic Carbon/Persulfate - Ultrav	SM	ELLE
SM5310C	Carbon, Total Inorganic	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
351.2	Nitrogen, Total Kjeldahl	MCAWW	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
8011	Microextraction	SW846	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique , RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-39710-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-39710-1	S-440_20210512	Water	05/12/21 09:25	05/13/21 17:55	
410-39710-2	S-78SRTF_20210512	Water	05/12/21 08:35	05/13/21 17:55	
410-39710-3	S-142SRTF_20210512	Water	05/12/21 10:05	05/13/21 17:55	
410-39710-4	S-376_SL_20210512	Water	05/12/21 11:30	05/13/21 17:55	
410-39710-5	S-146SRTF_20210512	Water	05/12/21 11:40	05/13/21 17:55	
410-39710-6	S-147SRTF_20210512	Water	05/12/21 14:10	05/13/21 17:55	
410-39710-7	S-193_20210512	Water	05/12/21 14:00	05/13/21 17:55	
410-39710-8	TB_20210513	Water	05/03/21 00:00	05/13/21 17:55	

nalysis Request/Chain of Custody

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410-39710-01 Chain of Custody

Sample # _____

Client:	Evergreen c/o Stantec		
Project Name/#	Former PES Annual GWS	Site ID #	16657
Project Manager:	Andrew Bradley	P.O. #:	213403363
Sampler:	Dane Hopkins, Doulton Campbell, Andrea Hill	PWSID #:	
Phone #:	610.840.2541	Quote #:	
State where sample(s) were collected:	PA		

For Lab Use Only

SF #: _____

SCR #: _____

Matrix: Sediment ☐ Soil ☐ Water: Ground ☑ Surface ☐ Potable ☐ NPDES ☐ Other: Trip Blank / Field Blank

Analyses Requested — Preservation Codes

Sample Identification	Collection Date	Collection Time	Grab	Composite	Soil	Water	Other:	Total # of Containers	Evergreen Petroleum Short List (refer to attached list of analytes) H / NP	TBA 8260 H	Dissolved Lead (field filtered) N	Total Inorganic Carbon (TIC) P/NP	Sulfate NP	Dissolved Headspace Gases (methane, ethane, ethene) H	Total Iron N	Total Calcium N	Total Kjeldahl Nitrogen (TKN) S	Alkalinity as CaCO3 NP	VOC 8260 (Including TBA and EDB 826 H	Remarks
S-440_20210512	5/12/2021	9:25	X			X		18	X	X	X	X	X	X	X	X	X	X		
S-78SRTF_20210512	5/12/2021	8:35	X			X		18	X	X	X	X	X	X	X	X	X	X		
S-142SRTF_20210512	5/12/2021	10:05	X			X		18	X	X	X	X	X	X	X	X	X	X		
S-376_SL_20210512	5/12/2021	11:30	X			X		18	X	X	X	X	X	X	X	X	X	X		
S-146SRTF_20210512	5/12/2021	11:40	X			X		18	X	X	X	X	X	X	X	X	X	X		
S-147SRTF_20210512	5/12/2021	14:10	X			X		18	X	X	X	X	X	X	X	X	X	X		
S-193_20210512	5/12/2021	14:00	X			X		18	X	X	X	X	X	X	X	X	X	X		
TB_20210513	5/3/2021	--					X	2											X	Trip Blank

Preservation Codes: H = HCl, T = Thiosulfate, N = HNO_3, B = NaOH, S = H_2SO_4, P = H_3PO_4, O = Other, NP = Non-Preserved

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed:

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: abradley@stantec.com

Phone: 610.840.2541

Data Package Options (please check if required)

- Type I (Validation/non-CLP) ☐
- Type III (Reduced non-CLP) ☐
- Type IV (CLP SOW) ☐
- Type VI (Raw Data Only) ☐
- MA MCP ☐
- CT RCP ☐
- TX TRRP-13 ☐

EDD Required? Yes ☑ No ☐ If yes, format: ___ EQUIS

Relinquished by:	Date	Time	Received by:	Date	Time
Dane	5/13/21	13:15	Pierm	5/13/21	1320
[illegible]	5/13/21	1731			
				5/13/21	5/14/21 AP13160 (3)
			[illegible]	~~5/13/21~~	1755

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____

Temperature upon receipt 3.4 - 3.5 °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

7045 0713

Evergreen Petroleum Short List (June 2016)

VOCs by EPA Method 8260	CAS No.
Benzene	71-43-2
Cumene	98-82-8
Dichloroethane, 1,2-	107-06-2
Ethylbenzene	100-41-4
Ethylene Dibromide*	106-93-4
Methyl tert butyl ether	1634-04-4
Toluene	108-88-3
Trimethylbenzene, 1,2,4-	95-63-6
Trimethylbenzene, 1,3,5-	108-67-8
Xylenes	1330-20-7

SVOCs by EPA Method 8270	CAS No.
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Chrysene	218-01-9
Fluorene	86-73-7
Naphthalene**	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Metals by Method 6010/6020	CAS No.
Lead***	7439-92-1



*Ethylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

**Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

***Metals analysis should be total in soil and dissolved in groundwater.

This list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline and No. 1, 2, 4, 5, 6 Fuel Oils).

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-39710-1

Login Number: 39710

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Cyms, Carolyn M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	True	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-40660-1
Client Project/Site: Former PES Annual GWS

For:
Stantec Consulting Corp.
1060 Andrew Drive
Suite 140
West Chester, Pennsylvania 19380

Attn: Mr. Andrew Bradley

Authorized for release by:
5/31/2021 8:12:44 PM

Amek Carter, Project Manager
(717)556-7252
Loran.Carter@eurofinset.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Amek Carter
Project Manager
5/31/2021 8:12:44 PM

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 6
Detection Summary 7
Client Sample Results 9
Surrogate Summary 13
QC Sample Results 15
QC Association Summary 26
Lab Chronicle 30
Certification Summary 32
Method Summary 33
Sample Summary 34
Chain of Custody 35
Receipt Checklists 37

Client: Stantec Consulting Corp.
Job ID: 410-40660-1
Project/Site: Former PES Annual GWS

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
^c	CCV Recovery is outside acceptance limits.

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
B	Analyte was found in the blank.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TNTC	Too Numerous To Count

Job ID: 410-40660-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-40660-1

Receipt
The samples were received on 5/20/2021 5:52 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.1°C

GC/MS VOA
Method 8260C_UST: The continuing calibration verification (CCV) analyzed on 410-130291 is compliant under 8260C/D method criteria for t-Butyl alcohol. The software does not display the % Drift data to the whole number as is listed in the method (i.e. limit of 20%). When applying the evaluation to a whole number, the check passes the criteria with a value of 20% Drift.

Method 8260C_UST: The method requirement for no headspace was not met. The container (s) used for reanalysis of the following sample contained headspace: S-200_20210519 (410-40660-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
Method RSK_175: The method requirement for no headspace was not met. The following volatile sample was analyzed for Methane with significant headspace in the sample container(s): S-200_20210519 (410-40660-1). Significant headspace is defined as a bubble greater than 6 mm in diameter.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method SM5310_TC_TIC: The continuing calibration blank (CCB) and method blank (MB) for analytical batch 410-131951 contained Total Carbon above the reporting limit (RL). All reported samples associated with this CCB and MB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB and MB; therefore, re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-40660-1

Client Sample ID: S-200_20210519 — Lab Sample ID: 410-40660-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	63		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Methyl tert-butyl ether	240		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Isopropylbenzene	32		5.0	0.20	ug/L	1		8260C/UST	Total/NA
t-Butyl alcohol	270	^c	50	12	ug/L	1		8260C/UST	Total/NA
Ethylbenzene - DL	380		20	8.0	ug/L	20		8260C/UST	Total/NA
1,3,5-Trimethylbenzene - DL	290		100	6.0	ug/L	20		8260C/UST	Total/NA
Xylenes, Total - DL	580		120	28	ug/L	20		8260C/UST	Total/NA
1,2,4-Trimethylbenzene - DL	580		100	20	ug/L	20		8260C/UST	Total/NA
Benzene - DL2	6200		50	10	ug/L	50		8260C/UST	Total/NA
Anthracene	6.2		0.56	0.11	ug/L	1		8270D	Total/NA
Benzo[a]anthracene	3.3		0.56	0.11	ug/L	1		8270D	Total/NA
Benzo[a]pyrene	2.0		0.56	0.12	ug/L	1		8270D	Total/NA
Benzo[b]fluoranthene	2.2		0.56	0.11	ug/L	1		8270D	Total/NA
Benzo[g,h,i]perylene	0.70		0.56	0.11	ug/L	1		8270D	Total/NA
Chrysene	2.9		0.56	0.11	ug/L	1		8270D	Total/NA
Fluorene	22		0.56	0.13	ug/L	1		8270D	Total/NA
Phenanthrene	15		0.56	0.12	ug/L	1		8270D	Total/NA
Pyrene	9.8		0.56	0.11	ug/L	1		8270D	Total/NA
Naphthalene - DL	660		5.6	1.1	ug/L	10		8270D	Total/NA
Ethane (1C)	4.2	J	5.0	1.0	ug/L	1		RSK-175	Total/NA
Methane (1C) - DL	17000		500	300	ug/L	100		RSK-175	Total/NA
Calcium	21000		500	96	ug/L	1		6010C	Total Recoverable
Iron	20000		200	40	ug/L	1		6010C	Total Recoverable
Lead	0.81		0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	120000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	1100		1000	500	ug/L	1		351.2	Total/NA
Total Carbon	64000	B	5000	2500	ug/L	5		5310 B-2011	Total/NA
Total Organic Carbon	18000		10000	5000	ug/L	10		5310C-2011	Total/NA
Total Inorganic Carbon	46000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: S-368_SL_20210519 — Lab Sample ID: 410-40660-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	2.6		1.0	0.40	ug/L	1		8260C/UST	Total/NA
1,3,5-Trimethylbenzene	14		5.0	0.30	ug/L	1		8260C/UST	Total/NA
Toluene	3.4		1.0	0.20	ug/L	1		8260C/UST	Total/NA
Xylenes, Total	17		6.0	1.4	ug/L	1		8260C/UST	Total/NA
Benzene	70		1.0	0.20	ug/L	1		8260C/UST	Total/NA
1,2,4-Trimethylbenzene	9.6		5.0	1.0	ug/L	1		8260C/UST	Total/NA
Isopropylbenzene	7.7		5.0	0.20	ug/L	1		8260C/UST	Total/NA
Anthracene	3.0		0.51	0.10	ug/L	1		8270D	Total/NA
Benzo[a]anthracene	0.52		0.51	0.10	ug/L	1		8270D	Total/NA
Chrysene	0.57		0.51	0.10	ug/L	1		8270D	Total/NA
Fluorene	6.9		0.51	0.12	ug/L	1		8270D	Total/NA
Phenanthrene	15		0.51	0.11	ug/L	1		8270D	Total/NA
Pyrene	5.7		0.51	0.10	ug/L	1		8270D	Total/NA
Methane (1C) - DL	15000		250	150	ug/L	50		RSK-175	Total/NA
Sulfate	1500	J	5000	1500	ug/L	5		EPA 300.0 R2.1	Total/NA
Calcium	44000		500	96	ug/L	1		6010C	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample ID: S-368_SL_20210519 (Continued)

Lab Sample ID: 410-40660-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	22000		200	40	ug/L	1		6010C	Total Recoverable
Lead	0.076	J	0.52	0.073	ug/L	1		6020A	Dissolved
Total Alkalinity as CaCO3 to pH 4.5	190000		8000	8000	ug/L	1		2320B-2011	Total/NA
Total Kjeldahl Nitrogen	730	J	1000	500	ug/L	1		351.2	Total/NA
Total Carbon	55000	B	5000	2500	ug/L	5		5310 B-2011	Total/NA
Total Organic Carbon	5400		5000	2500	ug/L	5		5310C-2011	Total/NA
Total Inorganic Carbon	50000		2000	600	ug/L	1		SM5310C	Total/NA

Client Sample ID: TB_20210520

Lab Sample ID: 410-40660-3

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: S-200_20210519

Date Collected: 05/19/21 12:38
Date Received: 05/20/21 17:52

Lab Sample ID: 410-40660-1

Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/25/21 15:07	1
Toluene	**63**		1.0	0.20	ug/L			05/25/21 15:07	1
Methyl tert-butyl ether	**240**		1.0	0.20	ug/L			05/25/21 15:07	1
Isopropylbenzene	**32**		5.0	0.20	ug/L			05/25/21 15:07	1
t-Butyl alcohol	**270**	**^c**	50	12	ug/L			05/25/21 15:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*		*05/25/21 15:07*	*1*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*05/25/21 15:07*	*1*
Dibromofluoromethane (Surr)	*100*		*80 - 120*		*05/25/21 15:07*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/25/21 15:07*	*1*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**380**		20	8.0	ug/L			05/26/21 17:39	20
1,3,5-Trimethylbenzene	**290**		100	6.0	ug/L			05/26/21 17:39	20
Xylenes, Total	**580**		120	28	ug/L			05/26/21 17:39	20
1,2,4-Trimethylbenzene	**580**		100	20	ug/L			05/26/21 17:39	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*		*05/26/21 17:39*	*20*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*05/26/21 17:39*	*20*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*05/26/21 17:39*	*20*
Toluene-d8 (Surr)	*105*		*80 - 120*		*05/26/21 17:39*	*20*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) - DL2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**6200**		50	10	ug/L			05/27/21 15:55	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*		*05/27/21 15:55*	*50*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*05/27/21 15:55*	*50*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*05/27/21 15:55*	*50*
Toluene-d8 (Surr)	*106*		*80 - 120*		*05/27/21 15:55*	*50*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**6.2**		0.56	0.11	ug/L		05/26/21 19:15	05/28/21 02:32	1
Benzo[a]anthracene	**3.3**		0.56	0.11	ug/L		05/26/21 19:15	05/28/21 02:32	1
Benzo[a]pyrene	**2.0**		0.56	0.12	ug/L		05/26/21 19:15	05/28/21 02:32	1
Benzo[b]fluoranthene	**2.2**		0.56	0.11	ug/L		05/26/21 19:15	05/28/21 02:32	1
Benzo[g,h,i]perylene	**0.70**		0.56	0.11	ug/L		05/26/21 19:15	05/28/21 02:32	1
Chrysene	**2.9**		0.56	0.11	ug/L		05/26/21 19:15	05/28/21 02:32	1
Fluorene	**22**		0.56	0.13	ug/L		05/26/21 19:15	05/28/21 02:32	1
Phenanthrene	**15**		0.56	0.12	ug/L		05/26/21 19:15	05/28/21 02:32	1
Pyrene	**9.8**		0.56	0.11	ug/L		05/26/21 19:15	05/28/21 02:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*66*		*35 - 100*	*05/26/21 19:15*	*05/28/21 02:32*	*1*
Nitrobenzene-d5 (Surr)	*76*		*22 - 117*	*05/26/21 19:15*	*05/28/21 02:32*	*1*
p-Terphenyl-d14 (Surr)	*80*		*31 - 119*	*05/26/21 19:15*	*05/28/21 02:32*	*1*

Client Sample ID: S-200_20210519
Date Collected: 05/19/21 12:38
Date Received: 05/20/21 17:52

Lab Sample ID: 410-40660-1
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	660		5.6	1.1	ug/L		05/26/21 19:15	05/29/21 01:24	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*80*		*35 - 100*	*05/26/21 19:15*	*05/29/21 01:24*	*10*
Nitrobenzene-d5 (Surr)	*87*		*22 - 117*	*05/26/21 19:15*	*05/29/21 01:24*	*10*
p-Terphenyl-d14 (Surr)	*89*		*31 - 119*	*05/26/21 19:15*	*05/29/21 01:24*	*10*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	4.2	J	5.0	1.0	ug/L		05/21/21 08:06	05/21/21 15:59	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/21/21 08:06	05/21/21 15:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*88*		*28 - 140*	*05/21/21 08:06*	*05/21/21 15:59*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	17000		500	300	ug/L		05/24/21 07:49	05/24/21 11:27	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*107*		*28 - 140*	*05/24/21 07:49*	*05/24/21 11:27*	*100*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.028	0.0095	ug/L		05/26/21 23:54	05/27/21 18:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*107*		*46 - 136*	*05/26/21 23:54*	*05/27/21 18:43*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*131*		*46 - 136*	*05/26/21 23:54*	*05/27/21 18:43*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5000	1500	ug/L			05/21/21 17:38	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	21000		500	96	ug/L		05/24/21 02:39	05/24/21 10:59	1
Iron	20000		200	40	ug/L		05/24/21 02:39	05/24/21 10:59	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.81		0.52	0.073	ug/L		05/24/21 04:27	05/25/21 14:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	120000		8000	8000	ug/L			05/25/21 04:03	1
Total Kjeldahl Nitrogen	1100		1000	500	ug/L		05/24/21 14:34	05/25/21 16:34	1
Total Carbon	64000	B	5000	2500	ug/L			05/27/21 18:17	5
Total Organic Carbon	18000		10000	5000	ug/L			05/25/21 23:36	10
Total Inorganic Carbon	46000		2000	600	ug/L			05/21/21 10:54	1

Client Sample ID: S-368_SL_20210519
Date Collected: 05/19/21 14:05
Date Received: 05/20/21 17:52

Lab Sample ID: 410-40660-2
Matrix: Water

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**2.6**		1.0	0.40	ug/L			05/25/21 15:31	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/25/21 15:31	1
1,3,5-Trimethylbenzene	**14**		5.0	0.30	ug/L			05/25/21 15:31	1
Toluene	**3.4**		1.0	0.20	ug/L			05/25/21 15:31	1
Xylenes, Total	**17**		6.0	1.4	ug/L			05/25/21 15:31	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/25/21 15:31	1
Benzene	**70**		1.0	0.20	ug/L			05/25/21 15:31	1
1,2,4-Trimethylbenzene	**9.6**		5.0	1.0	ug/L			05/25/21 15:31	1
Isopropylbenzene	**7.7**		5.0	0.20	ug/L			05/25/21 15:31	1
t-Butyl alcohol	ND	^c	50	12	ug/L			05/25/21 15:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*80 - 120*		*05/25/21 15:31*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*05/25/21 15:31*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*05/25/21 15:31*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/25/21 15:31*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**3.0**		0.51	0.10	ug/L		05/26/21 19:15	05/28/21 03:00	1
Benzo[a]anthracene	**0.52**		0.51	0.10	ug/L		05/26/21 19:15	05/28/21 03:00	1
Benzo[a]pyrene	ND		0.51	0.11	ug/L		05/26/21 19:15	05/28/21 03:00	1
Benzo[b]fluoranthene	ND		0.51	0.10	ug/L		05/26/21 19:15	05/28/21 03:00	1
Benzo[g,h,i]perylene	ND		0.51	0.10	ug/L		05/26/21 19:15	05/28/21 03:00	1
Chrysene	**0.57**		0.51	0.10	ug/L		05/26/21 19:15	05/28/21 03:00	1
Fluorene	**6.9**		0.51	0.12	ug/L		05/26/21 19:15	05/28/21 03:00	1
Naphthalene	ND		0.51	0.10	ug/L		05/26/21 19:15	05/28/21 03:00	1
Phenanthrene	**15**		0.51	0.11	ug/L		05/26/21 19:15	05/28/21 03:00	1
Pyrene	**5.7**		0.51	0.10	ug/L		05/26/21 19:15	05/28/21 03:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*67*		*35 - 100*	*05/26/21 19:15*	*05/28/21 03:00*	*1*
Nitrobenzene-d5 (Surr)	*77*		*22 - 117*	*05/26/21 19:15*	*05/28/21 03:00*	*1*
p-Terphenyl-d14 (Surr)	*74*		*31 - 119*	*05/26/21 19:15*	*05/28/21 03:00*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/21/21 08:06	05/21/21 16:16	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/21/21 08:06	05/21/21 16:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*79*		*28 - 140*	*05/21/21 08:06*	*05/21/21 16:16*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (1C)	**15000**		250	150	ug/L		05/24/21 07:49	05/24/21 11:45	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*109*		*28 - 140*	*05/24/21 07:49*	*05/24/21 11:45*	*50*

Client Sample ID: S-368_SL_20210519

Lab Sample ID: 410-40660-2

Date Collected: 05/19/21 14:05

Matrix: Water

Date Received: 05/20/21 17:52

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.028	0.0094	ug/L		05/26/21 23:54	05/27/21 19:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*107*		*46 - 136*	*05/26/21 23:54*	*05/27/21 19:00*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*115*		*46 - 136*	*05/26/21 23:54*	*05/27/21 19:00*	*1*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**1500**	**J**	5000	1500	ug/L			05/21/21 17:58	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**44000**		500	96	ug/L		05/24/21 02:39	05/24/21 11:02	1
Iron	**22000**		200	40	ug/L		05/24/21 02:39	05/24/21 11:02	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.076**	**J**	0.52	0.073	ug/L		05/24/21 04:27	05/25/21 14:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**190000**		8000	8000	ug/L			05/25/21 04:10	1
Total Kjeldahl Nitrogen	**730**	**J**	1000	500	ug/L		05/24/21 14:34	05/25/21 16:28	1
Total Carbon	**55000**	**B**	5000	2500	ug/L			05/27/21 18:49	5
Total Organic Carbon	**5400**		5000	2500	ug/L			05/25/21 23:50	5
Total Inorganic Carbon	**50000**		2000	600	ug/L			05/21/21 10:54	1

Client Sample ID: TB_20210520

Lab Sample ID: 410-40660-3

Date Collected: 05/03/21 00:00

Matrix: Water

Date Received: 05/20/21 17:52

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		1.0	0.20	ug/L			05/25/21 12:21	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/25/21 12:21	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/25/21 12:21	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/25/21 12:21	1
Toluene	ND		1.0	0.20	ug/L			05/25/21 12:21	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/25/21 12:21	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/25/21 12:21	1
Benzene	ND		1.0	0.20	ug/L			05/25/21 12:21	1
Naphthalene	ND		5.0	1.0	ug/L			05/25/21 12:21	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/25/21 12:21	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/25/21 12:21	1
t-Butyl alcohol	ND	^c	50	12	ug/L			05/25/21 12:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*		*05/25/21 12:21*	*1*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*05/25/21 12:21*	*1*
Dibromofluoromethane (Surr)	*100*		*80 - 120*		*05/25/21 12:21*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/25/21 12:21*	*1*

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-40660-1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-40660-1	S-200_20210519	99	92	100	102
410-40660-1 - DL	S-200_20210519	99	93	104	105
410-40660-1 - DL2	S-200_20210519	100	95	103	106
410-40660-2	S-368_SL_20210519	97	94	98	102
410-40660-3	TB_20210520	99	92	100	101
LCS 410-130291/4	Lab Control Sample	99	94	99	102
LCS 410-130831/4	Lab Control Sample	102	92	106	104
LCS 410-131337/4	Lab Control Sample	103	95	105	107
LCSD 410-130291/5	Lab Control Sample Dup	99	93	97	101
LCSD 410-130831/5	Lab Control Sample Dup	102	93	106	105
LCSD 410-131337/5	Lab Control Sample Dup	102	93	104	105
MB 410-130291/6	Method Blank	97	91	98	102
MB 410-130831/6	Method Blank	101	92	106	105
MB 410-131337/6	Method Blank	101	92	106	104

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(35-100)	(22-117)	(31-119)
410-40660-1	S-200_20210519	66	76	80
410-40660-1 - DL	S-200_20210519	80	87	89
410-40660-2	S-368_SL_20210519	67	77	74
LCS 410-131082/2-A	Lab Control Sample	71	78	82
LCSD 410-131082/3-A	Lab Control Sample Dup	66	74	78
MB 410-131082/1-A	Method Blank	54	60	57

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: RSK-175 - Dissolved Gases (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
		Propene1
Lab Sample ID	Client Sample ID	(28-140)
410-40660-1	S-200_20210519	88
410-40660-1 - DL	S-200_20210519	107
410-40660-2	S-368_SL_20210519	79
410-40660-2 - DL	S-368_SL_20210519	109
LCS 410-129128/2-A	Lab Control Sample	102
LCS 410-129771/2-A	Lab Control Sample	109

Surrogate Summary

Client: Stantec Consulting Corp. Job ID: 410-40660-1
Project/Site: Former PES Annual GWS

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)								
Lab Sample ID	Client Sample ID	Propene1 (28-140)								
LCSD 410-129128/3-A	Lab Control Sample Dup	100								
LCSD 410-129771/3-A	Lab Control Sample Dup	107								
MB 410-129128/1-A	Method Blank	106								
MB 410-129771/1-A	Method Blank	110								

Surrogate Legend

Propene = Propene

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)								
Lab Sample ID	Client Sample ID	1122TCA1 (46-136)	1122TCA2 (46-136)							
410-40660-1	S-200_20210519	107	131							
410-40660-2	S-368_SL_20210519	107	115							
LCS 410-131207/2-A	Lab Control Sample	101	103							
LCSD 410-131207/3-A	Lab Control Sample Dup	104	106							
MB 410-131207/1-A	Method Blank	113	118							

Surrogate Legend

1122TCA = 1,1,2,2-Tetrachloroethane (Surr)

Method: 8260C/UST - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-130291/6
Matrix: Water
Analysis Batch: 130291

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		1.0	0.20	ug/L			05/25/21 11:03	1
Ethylbenzene	ND		1.0	0.40	ug/L			05/25/21 11:03	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/25/21 11:03	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/25/21 11:03	1
Toluene	ND		1.0	0.20	ug/L			05/25/21 11:03	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/25/21 11:03	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/25/21 11:03	1
Benzene	ND		1.0	0.20	ug/L			05/25/21 11:03	1
Naphthalene	ND		5.0	1.0	ug/L			05/25/21 11:03	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/25/21 11:03	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/25/21 11:03	1
t-Butyl alcohol	ND		50	12	ug/L			05/25/21 11:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*80 - 120*		*05/25/21 11:03*	*1*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*05/25/21 11:03*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*05/25/21 11:03*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/25/21 11:03*	*1*

Lab Sample ID: LCS 410-130291/4
Matrix: Water
Analysis Batch: 130291

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylene Dibromide	20.0	19.2		ug/L		96	77 - 120
Ethylbenzene	20.0	19.0		ug/L		95	80 - 120
1,2-Dichloroethane	20.0	18.5		ug/L		93	73 - 124
1,3,5-Trimethylbenzene	20.0	17.6		ug/L		88	75 - 120
Toluene	20.0	19.3		ug/L		97	80 - 120
Xylenes, Total	60.0	57.0		ug/L		95	80 - 120
Methyl tert-butyl ether	20.0	16.7		ug/L		83	69 - 122
Benzene	20.0	19.5		ug/L		98	80 - 120
Naphthalene	20.0	17.2		ug/L		86	53 - 124
1,2,4-Trimethylbenzene	20.0	17.7		ug/L		89	75 - 120
Isopropylbenzene	20.0	18.3		ug/L		92	80 - 120
t-Butyl alcohol	200	206		ug/L		103	60 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*
Dibromofluoromethane (Surr)	*99*		*80 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-130291/5
Matrix: Water
Analysis Batch: 130291

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide			20.0	19.1		ug/L		96	77 - 120	0	30
Ethylbenzene			20.0	19.1		ug/L		96	80 - 120	1	30
1,2-Dichloroethane			20.0	18.7		ug/L		94	73 - 124	1	30
1,3,5-Trimethylbenzene			20.0	18.2		ug/L		91	75 - 120	4	30
Toluene			20.0	19.4		ug/L		97	80 - 120	0	30
Xylenes, Total			60.0	57.1		ug/L		95	80 - 120	0	30
Methyl tert-butyl ether			20.0	16.9		ug/L		85	69 - 122	2	30
Benzene			20.0	20.0		ug/L		100	80 - 120	2	30
Naphthalene			20.0	17.2		ug/L		86	53 - 124	0	30
1,2,4-Trimethylbenzene			20.0	18.0		ug/L		90	75 - 120	1	30
Isopropylbenzene			20.0	18.2		ug/L		91	80 - 120	1	30
t-Butyl alcohol			200	210		ug/L		105	60 - 130	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*
Dibromofluoromethane (Surr)	*97*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Lab Sample ID: MB 410-130831/6
Matrix: Water
Analysis Batch: 130831

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/26/21 11:17	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/26/21 11:17	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/26/21 11:17	1
Toluene	ND		1.0	0.20	ug/L			05/26/21 11:17	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/26/21 11:17	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/26/21 11:17	1
Benzene	ND		1.0	0.20	ug/L			05/26/21 11:17	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/26/21 11:17	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/26/21 11:17	1
t-Butyl alcohol	ND		50	12	ug/L			05/26/21 11:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*		*05/26/21 11:17*	*1*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*05/26/21 11:17*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 120*		*05/26/21 11:17*	*1*
Toluene-d8 (Surr)	*105*		*80 - 120*		*05/26/21 11:17*	*1*

Lab Sample ID: LCS 410-130831/4
Matrix: Water
Analysis Batch: 130831

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylbenzene			20.0	20.2		ug/L		101	80 - 120		
1,2-Dichloroethane			20.0	20.4		ug/L		102	73 - 124		

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-130831/4
Matrix: Water
Analysis Batch: 130831

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3,5-Trimethylbenzene	20.0	19.5		ug/L		97	75 - 120
Toluene	20.0	20.7		ug/L		104	80 - 120
Xylenes, Total	60.0	60.8		ug/L		101	80 - 120
Methyl tert-butyl ether	20.0	18.8		ug/L		94	69 - 122
Benzene	20.0	21.1		ug/L		106	80 - 120
1,2,4-Trimethylbenzene	20.0	19.6		ug/L		98	75 - 120
Isopropylbenzene	20.0	20.6		ug/L		103	80 - 120
t-Butyl alcohol	200	214		ug/L		107	60 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*
Dibromofluoromethane (Surr)	*106*		*80 - 120*
Toluene-d8 (Surr)	*104*		*80 - 120*

Lab Sample ID: LCSD 410-130831/5
Matrix: Water
Analysis Batch: 130831

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	20.0	20.6		ug/L		103	80 - 120	2	30
1,2-Dichloroethane	20.0	20.4		ug/L		102	73 - 124	0	30
1,3,5-Trimethylbenzene	20.0	19.9		ug/L		100	75 - 120	2	30
Toluene	20.0	21.0		ug/L		105	80 - 120	1	30
Xylenes, Total	60.0	61.3		ug/L		102	80 - 120	1	30
Methyl tert-butyl ether	20.0	18.6		ug/L		93	69 - 122	1	30
Benzene	20.0	21.2		ug/L		106	80 - 120	0	30
1,2,4-Trimethylbenzene	20.0	19.7		ug/L		98	75 - 120	0	30
Isopropylbenzene	20.0	21.0		ug/L		105	80 - 120	2	30
t-Butyl alcohol	200	212		ug/L		106	60 - 130	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*
Dibromofluoromethane (Surr)	*106*		*80 - 120*
Toluene-d8 (Surr)	*105*		*80 - 120*

Lab Sample ID: MB 410-131337/6
Matrix: Water
Analysis Batch: 131337

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.40	ug/L			05/27/21 10:46	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			05/27/21 10:46	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			05/27/21 10:46	1
Toluene	ND		1.0	0.20	ug/L			05/27/21 10:46	1
Xylenes, Total	ND		6.0	1.4	ug/L			05/27/21 10:46	1
Methyl tert-butyl ether	ND		1.0	0.20	ug/L			05/27/21 10:46	1

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-131337/6
Matrix: Water
Analysis Batch: 131337

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.20	ug/L			05/27/21 10:46	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			05/27/21 10:46	1
Isopropylbenzene	ND		5.0	0.20	ug/L			05/27/21 10:46	1
t-Butyl alcohol	ND		50	12	ug/L			05/27/21 10:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*		*05/27/21 10:46*	*1*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*05/27/21 10:46*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 120*		*05/27/21 10:46*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*05/27/21 10:46*	*1*

Lab Sample ID: LCS 410-131337/4
Matrix: Water
Analysis Batch: 131337

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylbenzene			20.0	21.2		ug/L		106	80 - 120		
1,2-Dichloroethane			20.0	21.1		ug/L		106	73 - 124		
1,3,5-Trimethylbenzene			20.0	20.3		ug/L		102	75 - 120		
Toluene			20.0	21.6		ug/L		108	80 - 120		
Xylenes, Total			60.0	63.0		ug/L		105	80 - 120		
Methyl tert-butyl ether			20.0	19.8		ug/L		99	69 - 122		
Benzene			20.0	21.9		ug/L		109	80 - 120		
1,2,4-Trimethylbenzene			20.0	20.3		ug/L		101	75 - 120		
Isopropylbenzene			20.0	21.3		ug/L		106	80 - 120		
t-Butyl alcohol			200	220		ug/L		110	60 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*80 - 120*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*
Dibromofluoromethane (Surr)	*105*		*80 - 120*
Toluene-d8 (Surr)	*107*		*80 - 120*

Lab Sample ID: LCSD 410-131337/5
Matrix: Water
Analysis Batch: 131337

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene			20.0	21.2		ug/L		106	80 - 120	0	30
1,2-Dichloroethane			20.0	21.0		ug/L		105	73 - 124	0	30
1,3,5-Trimethylbenzene			20.0	20.5		ug/L		103	75 - 120	1	30
Toluene			20.0	21.7		ug/L		108	80 - 120	0	30
Xylenes, Total			60.0	63.5		ug/L		106	80 - 120	1	30
Methyl tert-butyl ether			20.0	19.4		ug/L		97	69 - 122	2	30
Benzene			20.0	21.7		ug/L		109	80 - 120	1	30
1,2,4-Trimethylbenzene			20.0	20.3		ug/L		102	75 - 120	0	30
Isopropylbenzene			20.0	21.2		ug/L		106	80 - 120	0	30
t-Butyl alcohol			200	223		ug/L		112	60 - 130	2	30

Method: 8260C/UST - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-131337/5
Matrix: Water
Analysis Batch: 131337

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	102		80 - 120
4-Bromofluorobenzene (Surr)	93		80 - 120
Dibromofluoromethane (Surr)	104		80 - 120
Toluene-d8 (Surr)	105		80 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-131082/1-A
Matrix: Water
Analysis Batch: 131621

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 131082

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.10	ug/L		05/26/21 19:15	05/27/21 23:10	1
Benzo[a]anthracene	ND		0.50	0.10	ug/L		05/26/21 19:15	05/27/21 23:10	1
Benzo[a]pyrene	ND		0.50	0.11	ug/L		05/26/21 19:15	05/27/21 23:10	1
Benzo[b]fluoranthene	ND		0.50	0.10	ug/L		05/26/21 19:15	05/27/21 23:10	1
Benzo[g,h,i]perylene	ND		0.50	0.10	ug/L		05/26/21 19:15	05/27/21 23:10	1
Chrysene	ND		0.50	0.10	ug/L		05/26/21 19:15	05/27/21 23:10	1
Fluorene	ND		0.50	0.12	ug/L		05/26/21 19:15	05/27/21 23:10	1
Naphthalene	ND		0.50	0.10	ug/L		05/26/21 19:15	05/27/21 23:10	1
Phenanthrene	ND		0.50	0.11	ug/L		05/26/21 19:15	05/27/21 23:10	1
Pyrene	ND		0.50	0.10	ug/L		05/26/21 19:15	05/27/21 23:10	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	54		35 - 100	05/26/21 19:15	05/27/21 23:10	1
Nitrobenzene-d5 (Surr)	60		22 - 117	05/26/21 19:15	05/27/21 23:10	1
p-Terphenyl-d14 (Surr)	57		31 - 119	05/26/21 19:15	05/27/21 23:10	1

Lab Sample ID: LCS 410-131082/2-A
Matrix: Water
Analysis Batch: 131621

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 131082

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	50.0	42.2		ug/L		84	73 - 120
Benzo[a]anthracene	50.0	43.8		ug/L		88	74 - 120
Benzo[a]pyrene	50.0	47.7		ug/L		95	60 - 116
Benzo[b]fluoranthene	50.0	41.2		ug/L		82	71 - 120
Benzo[g,h,i]perylene	50.0	37.0		ug/L		74	60 - 120
Chrysene	50.0	45.5		ug/L		91	76 - 120
Fluorene	50.0	42.6		ug/L		85	64 - 120
Naphthalene	50.0	36.2		ug/L		72	51 - 102
Phenanthrene	50.0	40.8		ug/L		82	72 - 120
Pyrene	50.0	44.7		ug/L		89	73 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	71		35 - 100
Nitrobenzene-d5 (Surr)	78		22 - 117
p-Terphenyl-d14 (Surr)	82		31 - 119

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: LCSD 410-131082/3-A
Matrix: Water
Analysis Batch: 131621

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 131082

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Anthracene			50.0	39.2		ug/L		78	73 - 120	7	30
Benzo[a]anthracene			50.0	40.7		ug/L		81	74 - 120	7	30
Benzo[a]pyrene			50.0	44.7		ug/L		89	60 - 116	6	30
Benzo[b]fluoranthene			50.0	39.0		ug/L		78	71 - 120	5	30
Benzo[g,h,i]perylene			50.0	36.1		ug/L		72	60 - 120	2	30
Chrysene			50.0	42.9		ug/L		86	76 - 120	6	30
Fluorene			50.0	40.1		ug/L		80	64 - 120	6	30
Naphthalene			50.0	33.6		ug/L		67	51 - 102	8	30
Phenanthrene			50.0	38.2		ug/L		76	72 - 120	6	30
Pyrene			50.0	41.6		ug/L		83	73 - 120	7	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*66*		*35 - 100*
Nitrobenzene-d5 (Surr)	*74*		*22 - 117*
p-Terphenyl-d14 (Surr)	*78*		*31 - 119*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-129128/1-A
Matrix: Water
Analysis Batch: 129136

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 129128

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/21/21 08:06	05/21/21 14:15	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/21/21 08:06	05/21/21 14:15	1
Methane (1C)	ND		5.0	3.0	ug/L		05/21/21 08:06	05/21/21 14:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*106*		*28 - 140*	*05/21/21 08:06*	*05/21/21 14:15*	*1*

Lab Sample ID: LCS 410-129128/2-A
Matrix: Water
Analysis Batch: 129136

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 129128

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethane (1C)			59.4	61.4		ug/L		103	85 - 115
Ethene (1C)			60.4	62.3		ug/L		103	83 - 115
Methane (1C)			59.4	57.9		ug/L		97	85 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*102*		*28 - 140*

Lab Sample ID: LCSD 410-129128/3-A
Matrix: Water
Analysis Batch: 129136

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 129128

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	61.1		ug/L		103	85 - 115	1	20

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCSD 410-129128/3-A
Matrix: Water
Analysis Batch: 129136

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 129128

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethene (1C)			60.4	61.9		ug/L		103	83 - 115	1	20
Methane (1C)			59.4	57.1		ug/L		96	85 - 115	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*100*		*28 - 140*

Lab Sample ID: MB 410-129771/1-A
Matrix: Water
Analysis Batch: 129789

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 129771

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane (1C)	ND		5.0	1.0	ug/L		05/24/21 07:49	05/24/21 09:20	1
Ethene (1C)	ND		5.0	1.0	ug/L		05/24/21 07:49	05/24/21 09:20	1
Methane (1C)	ND		5.0	3.0	ug/L		05/24/21 07:49	05/24/21 09:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Propene (1C)	*110*		*28 - 140*	*05/24/21 07:49*	*05/24/21 09:20*	*1*

Lab Sample ID: LCS 410-129771/2-A
Matrix: Water
Analysis Batch: 129789

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 129771

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethane (1C)			59.4	61.3		ug/L		103	85 - 115
Ethene (1C)			60.4	61.8		ug/L		102	83 - 115
Methane (1C)			59.4	63.1		ug/L		106	85 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Propene (1C)	*109*		*28 - 140*

Lab Sample ID: LCSD 410-129771/3-A
Matrix: Water
Analysis Batch: 129789

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 129771

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethane (1C)			59.4	59.3		ug/L		100	85 - 115	3	20
Ethene (1C)			60.4	59.6		ug/L		99	83 - 115	4	20
Methane (1C)			59.4	62.1		ug/L		105	85 - 115	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Propene (1C)	*107*		*28 - 140*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 410-131207/1-A
Matrix: Water
Analysis Batch: 131242

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 131207

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide (1C)	ND		0.030	0.010	ug/L		05/26/21 23:54	05/27/21 12:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*113*		*46 - 136*	*05/26/21 23:54*	*05/27/21 12:34*	*1*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*118*		*46 - 136*	*05/26/21 23:54*	*05/27/21 12:34*	*1*

Lab Sample ID: LCS 410-131207/2-A
Matrix: Water
Analysis Batch: 131242

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 131207

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide (1C)			0.128	0.140		ug/L		109	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*101*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*103*		*46 - 136*

Lab Sample ID: LCSD 410-131207/3-A
Matrix: Water
Analysis Batch: 131242

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 131207

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide (1C)			0.128	0.141		ug/L		110	60 - 140	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,1,2,2-Tetrachloroethane (Surr) (1C)	*104*		*46 - 136*
1,1,2,2-Tetrachloroethane (Surr) (2C)	*106*		*46 - 136*

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 410-129334/4
Matrix: Water
Analysis Batch: 129334

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1000	300	ug/L			05/21/21 15:07	1

Lab Sample ID: LCS 410-129334/3
Matrix: Water
Analysis Batch: 129334

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			7500	7290		ug/L		97	90 - 110		

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-40660-1

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-129681/1-A
Matrix: Water
Analysis Batch: 129936

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 129681

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		500	96	ug/L		05/24/21 02:39	05/24/21 10:34	1
Iron	ND		200	40	ug/L		05/24/21 02:39	05/24/21 10:34	1

Lab Sample ID: LCS 410-129681/2-A
Matrix: Water
Analysis Batch: 129936

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 129681

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	5000	5070		ug/L		101	80 - 120
Iron	5000	4850		ug/L		97	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 410-129691/1-A
Matrix: Water
Analysis Batch: 130875

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 129691

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.52	0.073	ug/L		05/24/21 04:27	05/25/21 14:17	1

Lab Sample ID: LCS 410-129691/2-A
Matrix: Water
Analysis Batch: 130875

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 129691

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	52.0		ug/L		104	90 - 115

Lab Sample ID: LCSD 410-129691/3-A
Matrix: Water
Analysis Batch: 130875

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 129691

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	50.0	51.6		ug/L		103	90 - 115	1	20

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 410-130502/102
Matrix: Water
Analysis Batch: 130502

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	ND		8000	8000	ug/L			05/25/21 03:19	1

Lab Sample ID: LCS 410-130502/103
Matrix: Water
Analysis Batch: 130502

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	189000	186000		ug/L		98	82 - 106

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 410-129999/2-A
Matrix: Water
Analysis Batch: 130559

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 129999

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		1000	500	ug/L		05/24/21 14:34	05/25/21 16:23	1

Lab Sample ID: LCS 410-129999/1-A
Matrix: Water
Analysis Batch: 130559

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 129999

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Kjeldahl Nitrogen			5000	4500		ug/L		90	90 - 110		

Method: 5310 B-2011 - Carbon, Total and Total Inorganic

Lab Sample ID: MB 410-131951/13
Matrix: Water
Analysis Batch: 131951

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Carbon	501	J B	1000	500	ug/L			05/27/21 19:33	1

Lab Sample ID: MB 410-131951/5
Matrix: Water
Analysis Batch: 131951

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Carbon	577	J B	1000	500	ug/L			05/27/21 18:07	1

Lab Sample ID: LCS 410-131951/4
Matrix: Water
Analysis Batch: 131951

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Carbon			25000	26200		ug/L		105	91 - 115		

Lab Sample ID: LCSD 410-131951/14
Matrix: Water
Analysis Batch: 131951

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Carbon			25000	24500		ug/L		98	91 - 115	5	20

Lab Sample ID: 410-40660-1 MS
Matrix: Water
Analysis Batch: 131951

Client Sample ID: S-200_20210519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Carbon	64000	B	50000	110000		ug/L		93	91 - 115		

Method: 5310 B-2011 - Carbon, Total and Total Inorganic (Continued)

Lab Sample ID: 410-40660-1 DU
Matrix: Water
Analysis Batch: 131951

Client Sample ID: S-200_20210519
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Carbon	64000	B		65700	B	ug/L				3	20

Method: 5310C-2011 - Total Organic Carbon/Persulfate - Ultrav

Lab Sample ID: MB 410-130913/5
Matrix: Water
Analysis Batch: 130913

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1000	500	ug/L			05/25/21 17:20	1

Lab Sample ID: LCS 410-130913/4
Matrix: Water
Analysis Batch: 130913

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon			25000	25100		ug/L		100	91 - 113		

GC/MS VOA

Analysis Batch: 130291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-40660-1	S-200_20210519	Total/NA	Water	8260C/UST	
410-40660-2	S-368_SL_20210519	Total/NA	Water	8260C/UST	
410-40660-3	TB_20210520	Total/NA	Water	8260C/UST	
MB 410-130291/6	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-130291/4	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-130291/5	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

Analysis Batch: 130831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-40660-1 - DL	S-200_20210519	Total/NA	Water	8260C/UST	
MB 410-130831/6	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-130831/4	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-130831/5	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

Analysis Batch: 131337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-40660-1 - DL2	S-200_20210519	Total/NA	Water	8260C/UST	
MB 410-131337/6	Method Blank	Total/NA	Water	8260C/UST	
LCS 410-131337/4	Lab Control Sample	Total/NA	Water	8260C/UST	
LCSD 410-131337/5	Lab Control Sample Dup	Total/NA	Water	8260C/UST	

GC/MS Semi VOA

Prep Batch: 131082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-40660-1 - DL	S-200_20210519	Total/NA	Water	3510C	
410-40660-1	S-200_20210519	Total/NA	Water	3510C	
410-40660-2	S-368_SL_20210519	Total/NA	Water	3510C	
MB 410-131082/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-131082/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-131082/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 131621

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-131082/1-A	Method Blank	Total/NA	Water	8270D	131082
LCS 410-131082/2-A	Lab Control Sample	Total/NA	Water	8270D	131082
LCSD 410-131082/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	131082

Analysis Batch: 131719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-40660-1	S-200_20210519	Total/NA	Water	8270D	131082
410-40660-2	S-368_SL_20210519	Total/NA	Water	8270D	131082

Analysis Batch: 132205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-40660-1 - DL	S-200_20210519	Total/NA	Water	8270D	131082

GC VOA

Prep Batch: 129128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-40660-1	S-200_20210519	Total/NA	Water	RSK-175	

GC VOA (Continued)

Prep Batch: 129128 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-40660-2	S-368_SL_20210519	Total/NA	Water	RSK-175	
MB 410-129128/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-129128/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-129128/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 129136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-40660-1	S-200_20210519	Total/NA	Water	RSK-175	129128
410-40660-2	S-368_SL_20210519	Total/NA	Water	RSK-175	129128
MB 410-129128/1-A	Method Blank	Total/NA	Water	RSK-175	129128
LCS 410-129128/2-A	Lab Control Sample	Total/NA	Water	RSK-175	129128
LCSD 410-129128/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	129128

Prep Batch: 129771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-40660-1 - DL	S-200_20210519	Total/NA	Water	RSK-175	
410-40660-2 - DL	S-368_SL_20210519	Total/NA	Water	RSK-175	
MB 410-129771/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-129771/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-129771/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 129789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-40660-1 - DL	S-200_20210519	Total/NA	Water	RSK-175	129771
410-40660-2 - DL	S-368_SL_20210519	Total/NA	Water	RSK-175	129771
MB 410-129771/1-A	Method Blank	Total/NA	Water	RSK-175	129771
LCS 410-129771/2-A	Lab Control Sample	Total/NA	Water	RSK-175	129771
LCSD 410-129771/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	129771

GC Semi VOA

Prep Batch: 131207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-40660-1	S-200_20210519	Total/NA	Water	8011	
410-40660-2	S-368_SL_20210519	Total/NA	Water	8011	
MB 410-131207/1-A	Method Blank	Total/NA	Water	8011	
LCS 410-131207/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 410-131207/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 131242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-40660-1	S-200_20210519	Total/NA	Water	8011	131207
410-40660-2	S-368_SL_20210519	Total/NA	Water	8011	131207
MB 410-131207/1-A	Method Blank	Total/NA	Water	8011	131207
LCS 410-131207/2-A	Lab Control Sample	Total/NA	Water	8011	131207
LCSD 410-131207/3-A	Lab Control Sample Dup	Total/NA	Water	8011	131207

HPLC/IC

Analysis Batch: 129334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-40660-1	S-200_20210519	Total/NA	Water	EPA 300.0 R2.1	

HPLC/IC (Continued)

Analysis Batch: 129334 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-40660-2	S-368_SL_20210519	Total/NA	Water	EPA 300.0 R2.1	
MB 410-129334/4	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-129334/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 129681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-40660-1	S-200_20210519	Total Recoverable	Water	3005A	
410-40660-2	S-368_SL_20210519	Total Recoverable	Water	3005A	
MB 410-129681/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-129681/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 129691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-40660-1	S-200_20210519	Dissolved	Water	Non-Digest Prep	
410-40660-2	S-368_SL_20210519	Dissolved	Water	Non-Digest Prep	
MB 410-129691/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-129691/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	
LCSD 410-129691/3-A	Lab Control Sample Dup	Total/NA	Water	Non-Digest Prep	

Analysis Batch: 129936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-40660-1	S-200_20210519	Total Recoverable	Water	6010C	129681
410-40660-2	S-368_SL_20210519	Total Recoverable	Water	6010C	129681
MB 410-129681/1-A	Method Blank	Total Recoverable	Water	6010C	129681
LCS 410-129681/2-A	Lab Control Sample	Total Recoverable	Water	6010C	129681

Analysis Batch: 130875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-40660-1	S-200_20210519	Dissolved	Water	6020A	129691
410-40660-2	S-368_SL_20210519	Dissolved	Water	6020A	129691
MB 410-129691/1-A	Method Blank	Total/NA	Water	6020A	129691
LCS 410-129691/2-A	Lab Control Sample	Total/NA	Water	6020A	129691
LCSD 410-129691/3-A	Lab Control Sample Dup	Total/NA	Water	6020A	129691

General Chemistry

Analysis Batch: 129241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-40660-1	S-200_20210519	Total/NA	Water	SM5310C	
410-40660-2	S-368_SL_20210519	Total/NA	Water	SM5310C	

Prep Batch: 129999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-40660-1	S-200_20210519	Total/NA	Water	351.2	
410-40660-2	S-368_SL_20210519	Total/NA	Water	351.2	
MB 410-129999/2-A	Method Blank	Total/NA	Water	351.2	
LCS 410-129999/1-A	Lab Control Sample	Total/NA	Water	351.2	

General Chemistry

Analysis Batch: 130502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-40660-1	S-200_20210519	Total/NA	Water	2320B-2011	
410-40660-2	S-368_SL_20210519	Total/NA	Water	2320B-2011	
MB 410-130502/102	Method Blank	Total/NA	Water	2320B-2011	
LCS 410-130502/103	Lab Control Sample	Total/NA	Water	2320B-2011	

Analysis Batch: 130559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-40660-1	S-200_20210519	Total/NA	Water	351.2	129999
410-40660-2	S-368_SL_20210519	Total/NA	Water	351.2	129999
MB 410-129999/2-A	Method Blank	Total/NA	Water	351.2	129999
LCS 410-129999/1-A	Lab Control Sample	Total/NA	Water	351.2	129999

Analysis Batch: 130913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-40660-1	S-200_20210519	Total/NA	Water	5310C-2011	
410-40660-2	S-368_SL_20210519	Total/NA	Water	5310C-2011	
MB 410-130913/5	Method Blank	Total/NA	Water	5310C-2011	
LCS 410-130913/4	Lab Control Sample	Total/NA	Water	5310C-2011	

Analysis Batch: 131951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-40660-1	S-200_20210519	Total/NA	Water	5310 B-2011	
410-40660-2	S-368_SL_20210519	Total/NA	Water	5310 B-2011	
MB 410-131951/13	Method Blank	Total/NA	Water	5310 B-2011	
MB 410-131951/5	Method Blank	Total/NA	Water	5310 B-2011	
LCS 410-131951/4	Lab Control Sample	Total/NA	Water	5310 B-2011	
LCSD 410-131951/14	Lab Control Sample Dup	Total/NA	Water	5310 B-2011	
410-40660-1 MS	S-200_20210519	Total/NA	Water	5310 B-2011	
410-40660-1 DU	S-200_20210519	Total/NA	Water	5310 B-2011	

Client Sample ID: S-200_20210519

Lab Sample ID: 410-40660-1

Date Collected: 05/19/21 12:38

Matrix: Water

Date Received: 05/20/21 17:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	130291	05/25/21 15:07	LCW8	ELLE
Total/NA	Analysis	8260C/UST	DL	20	130831	05/26/21 17:39	UKAD	ELLE
Total/NA	Analysis	8260C/UST	DL2	50	131337	05/27/21 15:55	LCW8	ELLE
Total/NA	Prep	3510C			131082	05/26/21 19:15	QQ3P	ELLE
Total/NA	Analysis	8270D		1	131719	05/28/21 02:32	UWHS	ELLE
Total/NA	Prep	3510C	DL		131082	05/26/21 19:15	QQ3P	ELLE
Total/NA	Analysis	8270D	DL	10	132205	05/29/21 01:24	SJ89	ELLE
Total/NA	Prep	RSK-175			129128	05/21/21 08:06	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	129136	05/21/21 15:59	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		129771	05/24/21 07:49	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	100	129789	05/24/21 11:27	LXF2	ELLE
Total/NA	Prep	8011			131207	05/26/21 23:54	UKQ8	ELLE
Total/NA	Analysis	8011		1	131242	05/27/21 18:43	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	129334	05/21/21 17:38	W5UX	ELLE
Total Recoverable	Prep	3005A			129681	05/24/21 02:39	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	129936	05/24/21 10:59	WJM9	ELLE
Dissolved	Prep	Non-Digest Prep			129691	05/24/21 04:27	UJL8	ELLE
Dissolved	Analysis	6020A		1	130875	05/25/21 14:23	S8DY	ELLE
Total/NA	Analysis	2320B-2011		1	130502	05/25/21 04:03	DI9Q	ELLE
Total/NA	Prep	351.2			129999	05/24/21 14:34	F8AU	ELLE
Total/NA	Analysis	351.2		1	130559	05/25/21 16:34	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		5	131951	05/27/21 18:17	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		10	130913	05/25/21 23:36	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	129241	05/21/21 10:54	KGQ6	ELLE

Client Sample ID: S-368_SL_20210519

Lab Sample ID: 410-40660-2

Date Collected: 05/19/21 14:05

Matrix: Water

Date Received: 05/20/21 17:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	130291	05/25/21 15:31	LCW8	ELLE
Total/NA	Prep	3510C			131082	05/26/21 19:15	QQ3P	ELLE
Total/NA	Analysis	8270D		1	131719	05/28/21 03:00	UWHS	ELLE
Total/NA	Prep	RSK-175			129128	05/21/21 08:06	LXF2	ELLE
Total/NA	Analysis	RSK-175		1	129136	05/21/21 16:16	LXF2	ELLE
Total/NA	Prep	RSK-175	DL		129771	05/24/21 07:49	LXF2	ELLE
Total/NA	Analysis	RSK-175	DL	50	129789	05/24/21 11:45	LXF2	ELLE
Total/NA	Prep	8011			131207	05/26/21 23:54	UKQ8	ELLE
Total/NA	Analysis	8011		1	131242	05/27/21 19:00	UAMZ	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	129334	05/21/21 17:58	W5UX	ELLE
Total Recoverable	Prep	3005A			129681	05/24/21 02:39	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	129936	05/24/21 11:02	WJM9	ELLE

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-40660-1

Client Sample ID: S-368_SL_20210519

Lab Sample ID: 410-40660-2

Date Collected: 05/19/21 14:05

Matrix: Water

Date Received: 05/20/21 17:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			129691	05/24/21 04:27	UJL8	ELLE
Dissolved	Analysis	6020A		1	130875	05/25/21 14:41	S8DY	ELLE
Total/NA	Analysis	2320B-2011		1	130502	05/25/21 04:10	DI9Q	ELLE
Total/NA	Prep	351.2			129999	05/24/21 14:34	F8AU	ELLE
Total/NA	Analysis	351.2		1	130559	05/25/21 16:28	JCG7	ELLE
Total/NA	Analysis	5310 B-2011		5	131951	05/27/21 18:49	KGQ6	ELLE
Total/NA	Analysis	5310C-2011		5	130913	05/25/21 23:50	KGQ6	ELLE
Total/NA	Analysis	SM5310C		1	129241	05/21/21 10:54	KGQ6	ELLE

Client Sample ID: TB_20210520

Lab Sample ID: 410-40660-3

Date Collected: 05/03/21 00:00

Matrix: Water

Date Received: 05/20/21 17:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C/UST		1	130291	05/25/21 12:21	LCW8	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Job ID: 410-40660-1
Project/Site: Former PES Annual GWS

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
5310 B-2011		Water	Total Carbon
SM5310C		Water	Total Inorganic Carbon

Method Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-40660-1

Method	Method Description	Protocol	Laboratory
8260C/UST	Volatile Organic Compounds (GC/MS)	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
RSK-175	Dissolved Gases (GC)	RSK	ELLE
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	ELLE
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	ELLE
6010C	Metals (ICP)	SW846	ELLE
6020A	Metals (ICP/MS)	SW846	ELLE
2320B-2011	Alkalinity, Total	SM	ELLE
351.2	Nitrogen, Total Kjeldahl	MCAWW	ELLE
5310 B-2011	Carbon, Total and Total Inorganic	SM	ELLE
5310C-2011	Total Organic Carbon/Persulfate - Ultrav	SM	ELLE
SM5310C	Carbon, Total Inorganic	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
351.2	Nitrogen, Total Kjeldahl	MCAWW	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
8011	Microextraction	SW846	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique , RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: Former PES Annual GWS

Job ID: 410-40660-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-40660-1	S-200_20210519	Water	05/19/21 12:38	05/20/21 17:52	
410-40660-2	S-368_SL_20210519	Water	05/19/21 14:05	05/20/21 17:52	
410-40660-3	TB_20210520	Water	05/03/21 00:00	05/20/21 17:52	

al Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

410-40660-01 Chain of Custody

oup # _____ Sample # _____

Client:	Evergreen c/o Stantec		
Project Name/#:	Former PES Annual GWS	Site ID #:	16657
Project Manager:	Andrew Bradley	P.O. #:	213403363
Sampler:	Dane Hopkins, Andrea Hill	PWSID #:	
Phone #:	610.840.2541	Quote #:	
State where sample(s) were collected:	PA		

Sample Identification	Collection Date	Collection Time	Grab	Composite	Soil	Sediment	Water (Ground / Surface / Potable / NPDES)	Other: Trip Blank / Field Blank	Total # of Containers	Evergreen Petroleum Short List (refer to attached list of analytes) H / NP	TBA 8260 H	Dissolved Lead (field filtered) N	Total Inorganic Carbon (TIC) P/NP	Sulfate NP	Dissolved Headspace Gases (methane, ethane, ethene) H	Total Iron N	Total Calcium N	Total Kjeldahl Nitrogen (TKN) S	Alkalinity as CaCO3 NP	VOC 8260 (including TBA and EDB 826 H	Remarks
S-200_20210519	5/19/2021	12:38	X				X		18	X	X	X	X	X	X	X	X	X	X		
S-368_SL_20210519	5/19/2021	14:05	X				X		18	X	X	X	X	X	X	X	X	X	X		
TB_20210520	5/3/2021	--						X	2											X	Trip Blank

Analyses Requested — Preservation Codes

For Lab Use Only: SF #: _____ SCR #: _____

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other; NP = Non-Preserved

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐

(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed:

Rush results requested by (please check): E-Mail ☑ Phone ☐

E-mail Address: abradley@stantec.com

Phone: 610.840.2541

Data Package Options (please check if required)

Type I (Validation/non-CLP) ☐ MA MCP ☐

Type III (Reduced non-CLP) ☐ CT RCP ☐

Type IV (CLP SOW) ☐ TX TRRP-13 ☐

Type VI (Raw Data Only) ☐

EDD Required? Yes ☑ No ☐ If yes, format: EQUIS

Relinquished by:	Date	Time	Received by:	Date	Time
	5/20/21	1320		5/20/21	13:20
	5/20	17:45			
				5-20-21	1752

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

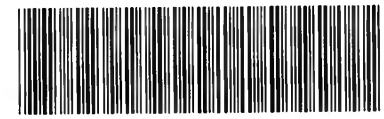
Temperature upon receipt 1.1 °C

Evergreen Petroleum Short List (June 2016)

VOCs by EPA Method 8260	CAS No.
Benzene	71-43-2
Cumene	98-82-8
Dichloroethane, 1,2-	107-06-2
Ethylbenzene	100-41-4
Ethylene Dibromide*	106-93-4
Methyl tert butyl ether	1634-04-4
Toluene	108-88-3
Trimethylbenzene, 1,2,4-	95-63-6
Trimethylbenzene, 1,3,5-	108-67-8
Xylenes	1330-20-7

SVOCs by EPA Method 8270	CAS No.
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Chrysene	218-01-9
Fluorene	86-73-7
Naphthalene**	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Metals by Method 6010/6020	CAS No.
Lead***	7439-92-1


410-40660-02 Chain of Custody

*Ethylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

**Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

***Metals analysis should be total in soil and dissolved in groundwater.

This list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline and No. 1, 2, 4, 5, 6 Fuel Oils).

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 410-40660-1

Login Number: 40660

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Cyms, Carolyn M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	True	

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

July 26, 2018

Stantec - S/E

Sample Delivery Group:	L1003320
Samples Received:	06/21/2018
Project Number:	213402429
Description:	PHL GWS
Site:	PISAOI-1
Report To:	Jennifer Menges 1060 Andrew Drive, Suite 140 West Chester, PA 19380

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



TABLE OF CONTENTS

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 3

Cn: Case Narrative 4

Sr: Sample Results 5

- S-42I_20180619 L1003320-01 5
- S-47I_20180619 L1003320-02 6
- S-87I_20180619 L1003320-03 7
- S-399_20180619 L1003320-04 8

Qc: Quality Control Summary 9

- Metals (ICPMS) by Method 6020 9
- Volatile Organic Compounds (GC/MS) by Method 8260B 10
- EDB / DBCP by Method 8011 14
- Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM 16

Gl: Glossary of Terms 17

Al: Accreditations & Locations 18

Sc: Sample Chain of Custody 19

S-42I_20180619 L1003320-01 GW

Collected by	Collected date/time	Received date/time
KM	06/19/18 09:50	06/21/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1128116	1	06/22/18 00:28	06/22/18 00:28	JCP
EDB / DBCP by Method 8011	WG1140686	1	07/20/18 08:51	07/21/18 00:59	ADF

S-47I_20180619 L1003320-02 GW

Collected by	Collected date/time	Received date/time
KM	06/19/18 11:20	06/21/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1128116	1	06/22/18 00:49	06/22/18 00:49	JCP
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1128628	50	06/24/18 17:41	06/24/18 17:41	JAH
EDB / DBCP by Method 8011	WG1140686	1	07/20/18 08:51	07/21/18 01:12	ADF

S-87I_20180619 L1003320-03 GW

Collected by	Collected date/time	Received date/time
KM	06/19/18 13:20	06/21/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1128116	1	06/22/18 01:11	06/22/18 01:11	JCP
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1129451	500	06/25/18 20:54	06/25/18 20:54	DWR
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1130604	5000	06/27/18 16:50	06/27/18 16:50	BMB
EDB / DBCP by Method 8011	WG1140686	1	07/20/18 08:51	07/21/18 01:24	ADF

S-399_20180619 L1003320-04 GW

Collected by	Collected date/time	Received date/time
KM	06/19/18 14:50	06/21/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1128173	1	06/26/18 11:23	06/26/18 19:11	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1128116	1	06/22/18 01:32	06/22/18 01:32	GLN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1129451	50	06/25/18 21:14	06/25/18 21:14	DWR
EDB / DBCP by Method 8011	WG1127562	1	06/21/18 13:02	06/22/18 05:43	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1128111	1	06/23/18 07:23	06/23/18 14:57	KM

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Mark W. Beasley
Project Manager

Project Narrative

SV8011 was analyzed outside of the 14 day holding time due to lab error.

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/22/2018 00:28	WG1128116
1,2-Dichloroethane	0.00101		0.00100	1	06/22/2018 00:28	WG1128116
Ethylbenzene	ND		0.00100	1	06/22/2018 00:28	WG1128116
Isopropylbenzene	ND		0.00100	1	06/22/2018 00:28	WG1128116
Toluene	ND		0.00100	1	06/22/2018 00:28	WG1128116
1,2,4-Trimethylbenzene	ND		0.00100	1	06/22/2018 00:28	WG1128116
1,3,5-Trimethylbenzene	ND		0.00100	1	06/22/2018 00:28	WG1128116
Xylenes, Total	ND		0.00300	1	06/22/2018 00:28	WG1128116
Methyl tert-butyl ether	0.0135		0.00100	1	06/22/2018 00:28	WG1128116
tert-Butyl alcohol	ND		0.00500	1	06/22/2018 00:28	WG1128116
(S) Toluene-d8	*107*		*80.0-120*		*06/22/2018 00:28*	WG1128116
(S) Dibromofluoromethane	*86.6*		*76.0-123*		*06/22/2018 00:28*	WG1128116
(S) 4-Bromofluorobenzene	*113*		*80.0-120*		*06/22/2018 00:28*	WG1128116

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND	T8	0.0000100	1	07/21/2018 00:59	WG1140686

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/22/2018 00:49	WG1128116
1,2-Dichloroethane	ND		0.00100	1	06/22/2018 00:49	WG1128116
Ethylbenzene	ND		0.00100	1	06/22/2018 00:49	WG1128116
Isopropylbenzene	0.0495		0.00100	1	06/22/2018 00:49	WG1128116
Toluene	0.00226		0.00100	1	06/22/2018 00:49	WG1128116
1,2,4-Trimethylbenzene	ND		0.00100	1	06/22/2018 00:49	WG1128116
1,3,5-Trimethylbenzene	ND		0.00100	1	06/22/2018 00:49	WG1128116
Xylenes, Total	0.00339		0.00300	1	06/22/2018 00:49	WG1128116
Methyl tert-butyl ether	0.0193		0.00100	1	06/22/2018 00:49	WG1128116
tert-Butyl alcohol	0.743		0.250	50	06/24/2018 17:41	WG1128628
(S) Toluene-d8	*99.5*		*80.0-120*		*06/22/2018 00:49*	WG1128116
(S) Toluene-d8	*103*		*80.0-120*		*06/24/2018 17:41*	WG1128628
(S) Dibromofluoromethane	*83.7*		*76.0-123*		*06/22/2018 00:49*	WG1128116
(S) Dibromofluoromethane	*97.4*		*76.0-123*		*06/24/2018 17:41*	WG1128628
(S) 4-Bromofluorobenzene	*117*		*80.0-120*		*06/22/2018 00:49*	WG1128116
(S) 4-Bromofluorobenzene	*104*		*80.0-120*		*06/24/2018 17:41*	WG1128628

EDB / DBCP by Method 8011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	ND	T8	0.0000100	1	07/21/2018 01:12	WG1140686

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/22/2018 01:11	WG1128116
1,2-Dichloroethane	0.0105		0.00100	1	06/22/2018 01:11	WG1128116
Ethylbenzene	ND		0.00100	1	06/22/2018 01:11	WG1128116
Isopropylbenzene	ND		0.00100	1	06/22/2018 01:11	WG1128116
Toluene	ND		0.00100	1	06/22/2018 01:11	WG1128116
1,2,4-Trimethylbenzene	ND		0.00100	1	06/22/2018 01:11	WG1128116
1,3,5-Trimethylbenzene	ND		0.00100	1	06/22/2018 01:11	WG1128116
Xylenes, Total	ND		0.00300	1	06/22/2018 01:11	WG1128116
Methyl tert-butyl ether	0.937		0.500	500	06/25/2018 20:54	WG1129451
tert-Butyl alcohol	229		25.0	5000	06/27/2018 16:50	WG1130604
(S) Toluene-d8	*107*		*80.0-120*		*06/22/2018 01:11*	WG1128116
(S) Toluene-d8	*103*		*80.0-120*		*06/25/2018 20:54*	WG1129451
(S) Toluene-d8	*95.8*		*80.0-120*		*06/27/2018 16:50*	WG1130604
(S) Dibromofluoromethane	*85.6*		*76.0-123*		*06/22/2018 01:11*	WG1128116
(S) Dibromofluoromethane	*98.3*		*76.0-123*		*06/25/2018 20:54*	WG1129451
(S) Dibromofluoromethane	*105*		*76.0-123*		*06/27/2018 16:50*	WG1130604
(S) 4-Bromofluorobenzene	*112*		*80.0-120*		*06/22/2018 01:11*	WG1128116
(S) 4-Bromofluorobenzene	*101*		*80.0-120*		*06/25/2018 20:54*	WG1129451
(S) 4-Bromofluorobenzene	*98.3*		*80.0-120*		*06/27/2018 16:50*	WG1130604

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND	T8	0.0000100	1	07/21/2018 01:24	WG1140686

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	06/26/2018 19:11	WG1128173

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/22/2018 01:32	WG1128116
1,2-Dichloroethane	ND		0.00100	1	06/22/2018 01:32	WG1128116
Ethylbenzene	ND		0.00100	1	06/22/2018 01:32	WG1128116
Isopropylbenzene	ND		0.00100	1	06/22/2018 01:32	WG1128116
Toluene	ND		0.00100	1	06/22/2018 01:32	WG1128116
1,2,4-Trimethylbenzene	ND		0.00100	1	06/22/2018 01:32	WG1128116
1,3,5-Trimethylbenzene	ND		0.00100	1	06/22/2018 01:32	WG1128116
Xylenes, Total	ND		0.00300	1	06/22/2018 01:32	WG1128116
Methyl tert-butyl ether	0.0229		0.00100	1	06/22/2018 01:32	WG1128116
tert-Butyl alcohol	2.62		0.250	50	06/25/2018 21:14	WG1129451
(S) Toluene-d8	*106*		*80.0-120*		*06/22/2018 01:32*	WG1128116
(S) Toluene-d8	*106*		*80.0-120*		*06/25/2018 21:14*	WG1129451
(S) Dibromofluoromethane	*83.8*		*76.0-123*		*06/22/2018 01:32*	WG1128116
(S) Dibromofluoromethane	*97.1*		*76.0-123*		*06/25/2018 21:14*	WG1129451
(S) 4-Bromofluorobenzene	*113*		*80.0-120*		*06/22/2018 01:32*	WG1128116
(S) 4-Bromofluorobenzene	*99.3*		*80.0-120*		*06/25/2018 21:14*	WG1129451

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	06/22/2018 05:43	WG1127562

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.0000654		0.0000500	1	06/23/2018 14:57	WG1128111
Benzo(a)anthracene	ND		0.0000500	1	06/23/2018 14:57	WG1128111
Benzo(a)pyrene	ND		0.0000500	1	06/23/2018 14:57	WG1128111
Benzo(b)fluoranthene	ND		0.0000500	1	06/23/2018 14:57	WG1128111
Benzo(g,h,i)perylene	ND		0.0000500	1	06/23/2018 14:57	WG1128111
Chrysene	ND		0.0000500	1	06/23/2018 14:57	WG1128111
Fluorene	0.000119		0.0000500	1	06/23/2018 14:57	WG1128111
Naphthalene	ND		0.000250	1	06/23/2018 14:57	WG1128111
Phenanthrene	0.000234		0.0000500	1	06/23/2018 14:57	WG1128111
Pyrene	ND		0.0000500	1	06/23/2018 14:57	WG1128111
(S) Nitrobenzene-d5	*81.0*		*31.0-160*		*06/23/2018 14:57*	WG1128111
(S) 2-Fluorobiphenyl	*111*		*48.0-148*		*06/23/2018 14:57*	WG1128111
(S) p-Terphenyl-d14	*112*		*37.0-146*		*06/23/2018 14:57*	WG1128111

Method Blank (MB)

(MB) R3321087-1 06/26/18 18:39

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Lead,Dissolved	0.000352	J	0.000240	0.00200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3321087-2 06/26/18 18:43 • (LCSD) R3321087-3 06/26/18 18:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Lead,Dissolved	0.0500	0.0488	0.0484	97.7	96.7	80.0-120			1.01	20

L1003571-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1003571-01 06/26/18 18:52 • (MS) R3321087-5 06/26/18 19:02 • (MSD) R3321087-6 06/26/18 19:06

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Lead,Dissolved	0.0500	0.0189	0.0671	0.0676	96.5	97.4	1	75.0-125			0.705	20

Method Blank (MB)

(MB) R3320230-4 06/21/18 20:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
tert-Butyl alcohol	U		0.00240	0.00500
(S) Toluene-d8	*108*			*80.0-120*
(S) Dibromofluoromethane	*87.1*			*76.0-123*
(S) 4-Bromofluorobenzene	*113*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3320230-1 06/21/18 19:28 • (LCSD) R3320230-2 06/21/18 19:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0225	0.0221	89.8	88.3	69.0-123			1.69	20
1,2-Dichloroethane	0.0250	0.0226	0.0223	90.4	89.0	67.0-126			1.53	20
Isopropylbenzene	0.0250	0.0266	0.0262	106	105	75.0-120			1.72	20
Ethylbenzene	0.0250	0.0261	0.0255	104	102	77.0-120			2.10	20
Methyl tert-butyl ether	0.0250	0.0215	0.0206	86.1	82.5	64.0-123			4.26	20
1,2,4-Trimethylbenzene	0.0250	0.0246	0.0243	98.3	97.4	75.0-120			0.985	20
1,3,5-Trimethylbenzene	0.0250	0.0252	0.0248	101	99.4	75.0-120			1.42	20
Toluene	0.0250	0.0252	0.0249	101	99.4	77.0-120			1.31	20
Xylenes, Total	0.0750	0.0777	0.0765	104	102	77.0-120			1.56	20
(S) Toluene-d8				*106*	*105*	*80.0-120*				
(S) Dibromofluoromethane				*86.8*	*84.6*	*76.0-123*				
(S) 4-Bromofluorobenzene				*109*	*108*	*80.0-120*				

Method Blank (MB)

(MB) R3320642-4 06/24/18 16:16

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
tert-Butyl alcohol	U		0.00240	0.00500
(S) Toluene-d8	*102*			*80.0-120*
(S) Dibromofluoromethane	*97.5*			*76.0-123*
(S) 4-Bromofluorobenzene	*106*			*80.0-120*

Laboratory Control Sample (LCS)

(LCS) R3320642-3 06/24/18 15:36

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
tert-Butyl alcohol	0.0500	0.0635	127	50.0-150	
(S) Toluene-d8			*103*	*80.0-120*	
(S) Dibromofluoromethane			*99.4*	*76.0-123*	
(S) 4-Bromofluorobenzene			*104*	*80.0-120*	

Method Blank (MB)

(MB) R3321271-4 06/25/18 20:06

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methyl tert-butyl ether	U		0.000367	0.00100
tert-Butyl alcohol	U		0.00240	0.00500
(S) Toluene-d8	*102*			*80.0-120*
(S) Dibromofluoromethane	*97.9*			*76.0-123*
(S) 4-Bromofluorobenzene	*102*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3321271-1 06/25/18 18:21 • (LCSD) R3321271-2 06/25/18 18:41

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methyl tert-butyl ether	0.0250	0.0227	0.0230	91.0	92.1	64.0-123			1.23	20
(S) Toluene-d8				*104*	*102*	*80.0-120*				
(S) Dibromofluoromethane				*96.3*	*97.6*	*76.0-123*				
(S) 4-Bromofluorobenzene				*103*	*102*	*80.0-120*				

Laboratory Control Sample (LCS)

(LCS) R3321271-3 06/25/18 19:01

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
tert-Butyl alcohol	0.0500	0.0540	108	50.0-150	
(S) Toluene-d8			*103*	*80.0-120*	
(S) Dibromofluoromethane			*98.9*	*76.0-123*	
(S) 4-Bromofluorobenzene			*103*	*80.0-120*	

Method Blank (MB)

(MB) R3321460-3 06/27/18 10:02

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
tert-Butyl alcohol	U		0.00240	0.00500
(S) Toluene-d8	*95.6*			*80.0-120*
(S) Dibromofluoromethane	*105*			*76.0-123*
(S) 4-Bromofluorobenzene	*97.4*			*80.0-120*

Laboratory Control Sample (LCS)

(LCS) R3321460-2 06/27/18 09:23

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
tert-Butyl alcohol	0.0500	0.0487	97.4	50.0-150	
(S) Toluene-d8			*92.3*	*80.0-120*	
(S) Dibromofluoromethane			*102*	*76.0-123*	
(S) 4-Bromofluorobenzene			*94.6*	*80.0-120*	

Method Blank (MB)

(MB) R3320087-1 06/22/18 02:40

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1003188-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1003188-08 06/22/18 03:29 • (DUP) R3320087-3 06/22/18 03:17

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	ND	0.000	1.01			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3320087-4 06/22/18 05:31 • (LCSD) R3320087-5 06/22/18 06:32

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000243	0.000236	97.2	94.4	60.0-140			2.92	20

L1003188-09 Original Sample (OS) • Matrix Spike (MS)

(OS) L1003188-09 06/22/18 03:04 • (MS) R3320087-2 06/22/18 02:52

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.000101	ND	0.000117	116	1.01	72.0-146	

Method Blank (MB)

(MB) R3327677-1 07/20/18 23:57

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1009704-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1009704-01 07/21/18 00:47 • (DUP) R3327677-3 07/21/18 00:34

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	U	0.000	1			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3327677-4 07/21/18 02:50 • (LCSD) R3327677-5 07/21/18 05:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000239	0.000229	95.6	91.6	60.0-140			4.27	20

L1009704-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1009704-03 07/21/18 00:22 • (MS) R3327677-2 07/21/18 00:10

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.0000998	U	0.0000955	95.7	1	72.0-146	

Method Blank (MB)

(MB) R3320567-3 06/23/18 12:12

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Chrysene	U		0.0000108	0.0000500
Fluorene	U		0.00000850	0.0000500
Naphthalene	0.0000209	J	0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
(S) Nitrobenzene-d5	*95.2*			*31.0-160*
(S) 2-Fluorobiphenyl	*137*			*48.0-148*
(S) p-Terphenyl-d14	*126*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3320567-1 06/23/18 11:25 • (LCSD) R3320567-2 06/23/18 11:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00215	0.00204	107	102	64.0-142			5.16	20
Benzo(a)anthracene	0.00200	0.00201	0.00193	100	96.5	59.0-134			4.03	20
Benzo(a)pyrene	0.00200	0.00213	0.00208	106	104	61.0-145			2.31	20
Benzo(b)fluoranthene	0.00200	0.00214	0.00201	107	100	57.0-136			6.40	20
Benzo(g,h,i)perylene	0.00200	0.00228	0.00229	114	114	54.0-140			0.528	20
Chrysene	0.00200	0.00215	0.00208	107	104	63.0-140			3.21	20
Fluorene	0.00200	0.00205	0.00192	102	95.8	64.0-129			6.61	20
Naphthalene	0.00200	0.00200	0.00190	100	95.1	68.0-129			5.18	20
Phenanthrene	0.00200	0.00191	0.00180	95.7	89.9	62.0-132			6.28	20
Pyrene	0.00200	0.00197	0.00191	98.7	95.5	58.0-156			3.23	20
(S) Nitrobenzene-d5				*89.4*	*81.5*	*31.0-160*				
(S) 2-Fluorobiphenyl				*129*	*118*	*48.0-148*				
(S) p-Terphenyl-d14				*118*	*111*	*37.0-146*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
T8	Sample(s) received past/too close to holding time expiration.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

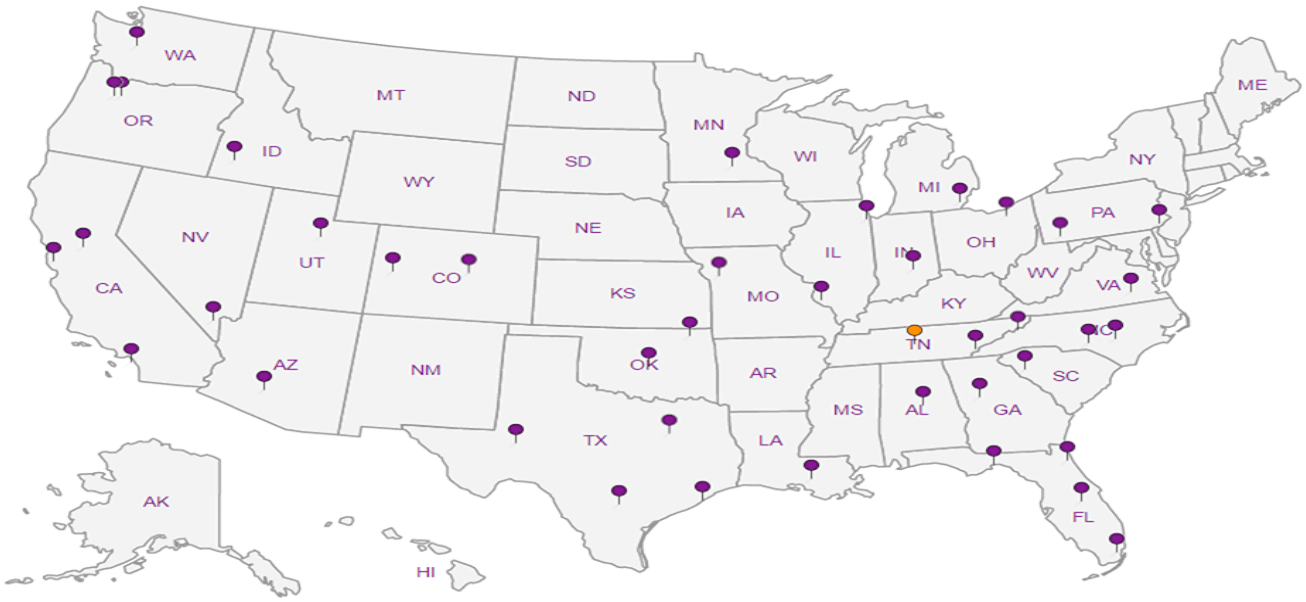
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Stantec - S/E

1060 Andrew Drive, Suite 140
West Chester, PA 19380

Billing Information:
Accounts Payable
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Pres Chk

Report to: Jennifer Menges

Email To: Jennifer.Menges@stantec.com

Project Description: Evergreen - AOI-1 GWS

City/State Collected: Philadelphia PA

Phone: 267-240-3415
Fax:

Client Project # 213402429

Lab Project # SUNSTANTEC-PHL

Collected by (print): Kat McCorry

Site/Facility ID # PGAOI-1

P.O. # Sunoco Cost

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: Standard TAT

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Evergreen Short List - Various	Dissolved Pb (Lab) - 250ml plastic NP	V8260OXY - 3 - 40ml vials w/ HCL	TBA	Remarks	Sample # (lab only)
S-42I-20180619	G	GW		6.19.18	950	3			X	X		01
S-47I-20180619	G	GW		6.19.18	1920	3			X	X		02
S-87I-20180619	G	GW		6.19.18	1320	3			X	X		03
S-399-20180619	G	GW		6.19.18	1450	9	X	X	X	X		04
		GW										
		GW										
		GW										
		GW										
		GW										
		GW										

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Various = 3 - 40ml vials w/ HCL, 3 - 40ml vials w/ NaThio, 2 - 40ml vials NP, and 1 - 250ml plastic NP *See attached List*

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Relinquished by : (Signature) Date: 6.19.18 Time: 1600 Received by: (Signature) 6/19/18 1648

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 0.6 °C Bottles Received: 18

If preservation required by Login: Date/Time

Relinquished by : (Signature) Date: Time: Received by: (Signature)

Relinquished by : (Signature) Date: Time: Received for lab by: (Signature) Date: 6/21/18 Time: 0845

Hold:

Condition: NCF / OK

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Chain of Custody Page 1 of 1

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 160370

Table G248

Acctnum: SUNSTANTEC

Template: T137388

Prelogin: P658899

TSR: 134 - Mark Beasley

PB: 6/15-18

Shipped Via:

Table 1
Evergreen Petroleum Short List of Constituents of Concern

VOCs by EPA Method 8260	CAS No.
Benzene	71-43-2
Cumene	98-82-8
Dichloroethane, 1,2-	107-06-2
Ethylbenzene	100-41-4
Ethylene Dibromide*	106-93-4
Methyl tert butyl ether	1634-04-4
Toluene	108-88-3
Trimethylbenzene, 1,2,4-	95-63-6
Trimethylbenzene, 1,3,5-	108-67-8
Xylenes	1330-20-7

SVOCs by EPA Method 8270	CAS No.
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Chrysene	218-01-9
Fluorene	86-73-7
Naphthalene**	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Metals by Method 6010/6020	CAS No.
Lead***	7439-92-1

*Ethylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

**Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

***Metals analysis should be total in soil and dissolved in groundwater.

This list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline and No. 1, 2, 4, 5, 6 Fuel Oils).

Stantec

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

July 22, 2018

Stantec - S/E

Sample Delivery Group:	L1004864
Samples Received:	06/27/2018
Project Number:	213402429
Description:	Evergreen-GWS

Report To: Jennifer Menges
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



TABLE OF CONTENTS

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 3

Cn: Case Narrative 5

Sr: Sample Results 6

- FB_20180625 L1004864-01 6
- TB_20180625 L1004864-02 7
- S-351_20180625 L1004864-03 8
- S-3_20180625 L1004864-04 9
- S-280_20180625 L1004864-05 10
- S-280DUP_20180625 L1004864-06 11
- ARCO_2_20180625 L1004864-07 12
- ARCO_1D_20180625 L1004864-08 13
- ARCO_1_20180625 L1004864-09 14

Qc: Quality Control Summary 15

- Metals (ICPMS) by Method 6020 15
- Volatile Organic Compounds (GC/MS) by Method 8260B 16
- EDB / DBCP by Method 8011 20
- Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM 21

Gl: Glossary of Terms 23

Al: Accreditations & Locations 24

Sc: Sample Chain of Custody 25

FB_20180625 L1004864-01 GW

Collected by: DH/KM | Collected date/time: 06/25/18 09:00 | Received date/time: 06/27/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130984	1	06/28/18 14:52	06/29/18 20:57	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131592	1	06/29/18 05:44	06/29/18 05:44	BMB
EDB / DBCP by Method 8011	WG1131066	1	07/02/18 08:28	07/02/18 23:29	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1131574	1	06/29/18 07:48	06/29/18 14:32	DMG

TB_20180625 L1004864-02 GW

Collected by: DH/KM | Collected date/time: 06/25/18 00:00 | Received date/time: 06/27/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1130961	1	06/28/18 01:59	06/28/18 01:59	JAH

S-351_20180625 L1004864-03 GW

Collected by: DH/KM | Collected date/time: 06/25/18 10:40 | Received date/time: 06/27/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130984	1	06/28/18 14:52	06/29/18 21:02	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131592	1	06/29/18 06:22	06/29/18 06:22	BMB
EDB / DBCP by Method 8011	WG1131066	.998	07/02/18 08:28	07/02/18 23:41	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1131574	1	06/29/18 07:48	06/29/18 14:54	DMG

S-3_20180625 L1004864-04 GW

Collected by: DH/KM | Collected date/time: 06/25/18 12:00 | Received date/time: 06/27/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130984	1	06/28/18 14:52	06/29/18 21:17	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131592	1	06/29/18 06:40	06/29/18 06:40	BMB
EDB / DBCP by Method 8011	WG1131066	1	07/02/18 08:28	07/02/18 23:54	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1131574	1	06/29/18 07:48	06/29/18 15:16	DMG

S-280_20180625 L1004864-05 GW

Collected by: DH/KM | Collected date/time: 06/25/18 13:25 | Received date/time: 06/27/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130984	1	06/28/18 14:52	06/29/18 21:23	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131592	50	06/29/18 06:59	06/29/18 06:59	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133088	500	07/04/18 03:48	07/04/18 03:48	BMB
EDB / DBCP by Method 8011	WG1131066	1.02	07/02/18 08:28	07/03/18 00:06	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1131574	1.03	06/29/18 07:48	06/29/18 19:54	DMG

S-280DUP_20180625 L1004864-06 GW

Collected by: DH/KM | Collected date/time: 06/25/18 13:25 | Received date/time: 06/27/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130984	1	06/28/18 14:52	06/29/18 21:28	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131592	50	06/29/18 07:18	06/29/18 07:18	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133088	500	07/04/18 04:08	07/04/18 04:08	BMB
EDB / DBCP by Method 8011	WG1131066	1	07/02/18 08:28	07/03/18 00:18	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1131576	1	07/01/18 22:33	07/02/18 10:28	KM

ARCO_2_20180625 L1004864-07 GW

Collected by	Collected date/time	Received date/time
DH/KM	06/25/18 11:00	06/27/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130984	1	06/28/18 14:52	06/29/18 21:33	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131592	1	06/29/18 07:37	06/29/18 07:37	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133088	10	07/04/18 04:28	07/04/18 04:28	BMB
EDB / DBCP by Method 8011	WG1131066	1.01	07/02/18 08:28	07/03/18 00:31	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1131576	1	07/01/18 22:33	07/02/18 10:50	KM

ARCO_1D_20180625 L1004864-08 GW

Collected by	Collected date/time	Received date/time
DH/KM	06/25/18 12:15	06/27/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130984	1	06/28/18 14:52	06/29/18 21:38	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131592	1	06/29/18 07:56	06/29/18 07:56	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133088	10	07/04/18 04:48	07/04/18 04:48	BMB
EDB / DBCP by Method 8011	WG1131066	1	07/02/18 08:28	07/03/18 00:43	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1131576	1	07/01/18 22:33	07/02/18 11:12	KM

ARCO_1_20180625 L1004864-09 GW

Collected by	Collected date/time	Received date/time
DH/KM	06/25/18 14:25	06/27/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130984	1	06/28/18 14:52	06/29/18 21:43	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131592	1	06/29/18 08:14	06/29/18 08:14	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133088	10	07/04/18 05:07	07/04/18 05:07	BMB
EDB / DBCP by Method 8011	WG1131066	1	07/02/18 08:28	07/03/18 00:56	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1131576	2	07/01/18 22:33	07/02/18 11:34	KM

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Mark W. Beasley
Project Manager

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	06/29/2018 20:57	WG1130984

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/29/2018 05:44	WG1131592
Isopropylbenzene	ND		0.00100	1	06/29/2018 05:44	WG1131592
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 05:44	WG1131592
Ethylbenzene	ND		0.00100	1	06/29/2018 05:44	WG1131592
Methyl tert-butyl ether	ND		0.00100	1	06/29/2018 05:44	WG1131592
Toluene	ND		0.00100	1	06/29/2018 05:44	WG1131592
1,2,4-Trimethylbenzene	ND		0.00100	1	06/29/2018 05:44	WG1131592
1,3,5-Trimethylbenzene	ND		0.00100	1	06/29/2018 05:44	WG1131592
Xylenes, Total	ND		0.00300	1	06/29/2018 05:44	WG1131592
(S) Toluene-d8	*106*		*80.0-120*		*06/29/2018 05:44*	WG1131592
(S) Dibromofluoromethane	*94.9*		*76.0-123*		*06/29/2018 05:44*	WG1131592
(S) 4-Bromofluorobenzene	*108*		*80.0-120*		*06/29/2018 05:44*	WG1131592

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/02/2018 23:29	WG1131066

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	06/29/2018 14:32	WG1131574
Benzo(a)anthracene	ND		0.0000500	1	06/29/2018 14:32	WG1131574
Benzo(a)pyrene	ND		0.0000500	1	06/29/2018 14:32	WG1131574
Benzo(b)fluoranthene	ND		0.0000500	1	06/29/2018 14:32	WG1131574
Benzo(g,h,i)perylene	ND		0.0000500	1	06/29/2018 14:32	WG1131574
Chrysene	ND		0.0000500	1	06/29/2018 14:32	WG1131574
Fluorene	ND		0.0000500	1	06/29/2018 14:32	WG1131574
Naphthalene	ND		0.000250	1	06/29/2018 14:32	WG1131574
Phenanthrene	ND		0.0000500	1	06/29/2018 14:32	WG1131574
Pyrene	ND		0.0000500	1	06/29/2018 14:32	WG1131574
(S) Nitrobenzene-d5	*66.2*		*31.0-160*		*06/29/2018 14:32*	WG1131574
(S) 2-Fluorobiphenyl	*105*		*48.0-148*		*06/29/2018 14:32*	WG1131574
(S) p-Terphenyl-d14	*90.3*		*37.0-146*		*06/29/2018 14:32*	WG1131574

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/28/2018 01:59	WG1130961
1,2-Dichloroethane	ND		0.00100	1	06/28/2018 01:59	WG1130961
Ethylbenzene	ND		0.00100	1	06/28/2018 01:59	WG1130961
1,2-Dibromoethane	ND		0.00100	1	06/28/2018 01:59	WG1130961
Isopropylbenzene	ND		0.00100	1	06/28/2018 01:59	WG1130961
Toluene	ND		0.00100	1	06/28/2018 01:59	WG1130961
1,2,4-Trimethylbenzene	ND		0.00100	1	06/28/2018 01:59	WG1130961
1,3,5-Trimethylbenzene	ND		0.00100	1	06/28/2018 01:59	WG1130961
Xylenes, Total	ND		0.00300	1	06/28/2018 01:59	WG1130961
Methyl tert-butyl ether	ND		0.00100	1	06/28/2018 01:59	WG1130961
tert-Butyl alcohol	ND		0.00500	1	06/28/2018 01:59	WG1130961
(S) Toluene-d8	*97.6*		*80.0-120*		*06/28/2018 01:59*	WG1130961
(S) Dibromofluoromethane	*98.2*		*76.0-123*		*06/28/2018 01:59*	WG1130961
(S) 4-Bromofluorobenzene	*102*		*80.0-120*		*06/28/2018 01:59*	WG1130961

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	06/29/2018 21:02	WG1130984

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/29/2018 06:22	WG1131592
Isopropylbenzene	0.00187		0.00100	1	06/29/2018 06:22	WG1131592
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 06:22	WG1131592
Ethylbenzene	ND		0.00100	1	06/29/2018 06:22	WG1131592
Methyl tert-butyl ether	ND		0.00100	1	06/29/2018 06:22	WG1131592
Toluene	ND		0.00100	1	06/29/2018 06:22	WG1131592
1,2,4-Trimethylbenzene	ND		0.00100	1	06/29/2018 06:22	WG1131592
1,3,5-Trimethylbenzene	ND		0.00100	1	06/29/2018 06:22	WG1131592
Xylenes, Total	ND		0.00300	1	06/29/2018 06:22	WG1131592
(S) Toluene-d8	*107*		*80.0-120*		*06/29/2018 06:22*	WG1131592
(S) Dibromofluoromethane	*92.0*		*76.0-123*		*06/29/2018 06:22*	WG1131592
(S) 4-Bromofluorobenzene	*108*		*80.0-120*		*06/29/2018 06:22*	WG1131592

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.998	07/02/2018 23:41	WG1131066

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	06/29/2018 14:54	WG1131574
Benzo(a)anthracene	ND		0.0000500	1	06/29/2018 14:54	WG1131574
Benzo(a)pyrene	ND		0.0000500	1	06/29/2018 14:54	WG1131574
Benzo(b)fluoranthene	ND		0.0000500	1	06/29/2018 14:54	WG1131574
Benzo(g,h,i)perylene	ND		0.0000500	1	06/29/2018 14:54	WG1131574
Chrysene	ND		0.0000500	1	06/29/2018 14:54	WG1131574
Fluorene	0.000161		0.0000500	1	06/29/2018 14:54	WG1131574
Naphthalene	ND		0.000250	1	06/29/2018 14:54	WG1131574
Phenanthrene	ND		0.0000500	1	06/29/2018 14:54	WG1131574
Pyrene	ND		0.0000500	1	06/29/2018 14:54	WG1131574
(S) Nitrobenzene-d5	*101*		*31.0-160*		*06/29/2018 14:54*	WG1131574
(S) 2-Fluorobiphenyl	*103*		*48.0-148*		*06/29/2018 14:54*	WG1131574
(S) p-Terphenyl-d14	*97.7*		*37.0-146*		*06/29/2018 14:54*	WG1131574

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	06/29/2018 21:17	WG1130984

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/29/2018 06:40	WG1131592
Isopropylbenzene	ND		0.00100	1	06/29/2018 06:40	WG1131592
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 06:40	WG1131592
Ethylbenzene	ND		0.00100	1	06/29/2018 06:40	WG1131592
Methyl tert-butyl ether	ND		0.00100	1	06/29/2018 06:40	WG1131592
Toluene	ND		0.00100	1	06/29/2018 06:40	WG1131592
1,2,4-Trimethylbenzene	ND		0.00100	1	06/29/2018 06:40	WG1131592
1,3,5-Trimethylbenzene	ND		0.00100	1	06/29/2018 06:40	WG1131592
Xylenes, Total	ND		0.00300	1	06/29/2018 06:40	WG1131592
(S) Toluene-d8	*105*		*80.0-120*		*06/29/2018 06:40*	WG1131592
(S) Dibromofluoromethane	*92.7*		*76.0-123*		*06/29/2018 06:40*	WG1131592
(S) 4-Bromofluorobenzene	*107*		*80.0-120*		*06/29/2018 06:40*	WG1131592

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/02/2018 23:54	WG1131066

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	06/29/2018 15:16	WG1131574
Benzo(a)anthracene	ND		0.0000500	1	06/29/2018 15:16	WG1131574
Benzo(a)pyrene	ND		0.0000500	1	06/29/2018 15:16	WG1131574
Benzo(b)fluoranthene	ND		0.0000500	1	06/29/2018 15:16	WG1131574
Benzo(g,h,i)perylene	ND		0.0000500	1	06/29/2018 15:16	WG1131574
Chrysene	ND		0.0000500	1	06/29/2018 15:16	WG1131574
Fluorene	ND		0.0000500	1	06/29/2018 15:16	WG1131574
Naphthalene	ND		0.000250	1	06/29/2018 15:16	WG1131574
Phenanthrene	ND		0.0000500	1	06/29/2018 15:16	WG1131574
Pyrene	ND		0.0000500	1	06/29/2018 15:16	WG1131574
(S) Nitrobenzene-d5	*70.4*		*31.0-160*		*06/29/2018 15:16*	WG1131574
(S) 2-Fluorobiphenyl	*109*		*48.0-148*		*06/29/2018 15:16*	WG1131574
(S) p-Terphenyl-d14	*95.4*		*37.0-146*		*06/29/2018 15:16*	WG1131574

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	06/29/2018 21:23	WG1130984

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	37.2		0.500	500	07/04/2018 03:48	WG1133088
Isopropylbenzene	ND		0.0500	50	06/29/2018 06:59	WG1131592
1,2-Dichloroethane	ND		0.0500	50	06/29/2018 06:59	WG1131592
Ethylbenzene	ND		0.0500	50	06/29/2018 06:59	WG1131592
Methyl tert-butyl ether	ND		0.0500	50	06/29/2018 06:59	WG1131592
Toluene	ND		0.0500	50	06/29/2018 06:59	WG1131592
1,2,4-Trimethylbenzene	ND		0.0500	50	06/29/2018 06:59	WG1131592
1,3,5-Trimethylbenzene	ND		0.0500	50	06/29/2018 06:59	WG1131592
Xylenes, Total	ND		0.150	50	06/29/2018 06:59	WG1131592
(S) Toluene-d8	*106*		*80.0-120*		*06/29/2018 06:59*	WG1131592
(S) Toluene-d8	*111*		*80.0-120*		*07/04/2018 03:48*	WG1133088
(S) Dibromofluoromethane	*96.0*		*76.0-123*		*06/29/2018 06:59*	WG1131592
(S) Dibromofluoromethane	*92.6*		*76.0-123*		*07/04/2018 03:48*	WG1133088
(S) 4-Bromofluorobenzene	*107*		*80.0-120*		*06/29/2018 06:59*	WG1131592
(S) 4-Bromofluorobenzene	*99.8*		*80.0-120*		*07/04/2018 03:48*	WG1133088

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000102	1.02	07/03/2018 00:06	WG1131066

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000515	1.03	06/29/2018 19:54	WG1131574
Benzo(a)anthracene	ND		0.0000515	1.03	06/29/2018 19:54	WG1131574
Benzo(a)pyrene	ND		0.0000515	1.03	06/29/2018 19:54	WG1131574
Benzo(b)fluoranthene	ND		0.0000515	1.03	06/29/2018 19:54	WG1131574
Benzo(g,h,i)perylene	ND		0.0000515	1.03	06/29/2018 19:54	WG1131574
Chrysene	ND		0.0000515	1.03	06/29/2018 19:54	WG1131574
Fluorene	ND		0.0000515	1.03	06/29/2018 19:54	WG1131574
Naphthalene	ND		0.000258	1.03	06/29/2018 19:54	WG1131574
Phenanthrene	ND		0.0000515	1.03	06/29/2018 19:54	WG1131574
Pyrene	ND		0.0000515	1.03	06/29/2018 19:54	WG1131574
(S) Nitrobenzene-d5	*143*		*31.0-160*		*06/29/2018 19:54*	WG1131574
(S) 2-Fluorobiphenyl	*97.6*		*48.0-148*		*06/29/2018 19:54*	WG1131574
(S) p-Terphenyl-d14	*82.1*		*37.0-146*		*06/29/2018 19:54*	WG1131574

Sample Narrative:

L1004864-05 WG1131574: Dilution due to sample volume

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	06/29/2018 21:28	WG1130984

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	39.9		0.500	500	07/04/2018 04:08	WG1133088
Isopropylbenzene	ND		0.0500	50	06/29/2018 07:18	WG1131592
1,2-Dichloroethane	ND		0.0500	50	06/29/2018 07:18	WG1131592
Ethylbenzene	ND		0.0500	50	06/29/2018 07:18	WG1131592
Methyl tert-butyl ether	ND		0.0500	50	06/29/2018 07:18	WG1131592
Toluene	ND		0.0500	50	06/29/2018 07:18	WG1131592
1,2,4-Trimethylbenzene	ND		0.0500	50	06/29/2018 07:18	WG1131592
1,3,5-Trimethylbenzene	ND		0.0500	50	06/29/2018 07:18	WG1131592
Xylenes, Total	ND		0.150	50	06/29/2018 07:18	WG1131592
(S) Toluene-d8	*107*		*80.0-120*		*06/29/2018 07:18*	WG1131592
(S) Toluene-d8	*106*		*80.0-120*		*07/04/2018 04:08*	WG1133088
(S) Dibromofluoromethane	*95.8*		*76.0-123*		*06/29/2018 07:18*	WG1131592
(S) Dibromofluoromethane	*103*		*76.0-123*		*07/04/2018 04:08*	WG1133088
(S) 4-Bromofluorobenzene	*108*		*80.0-120*		*06/29/2018 07:18*	WG1131592
(S) 4-Bromofluorobenzene	*103*		*80.0-120*		*07/04/2018 04:08*	WG1133088

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/03/2018 00:18	WG1131066

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/02/2018 10:28	WG1131576
Benzo(a)anthracene	ND		0.0000500	1	07/02/2018 10:28	WG1131576
Benzo(a)pyrene	ND		0.0000500	1	07/02/2018 10:28	WG1131576
Benzo(b)fluoranthene	ND		0.0000500	1	07/02/2018 10:28	WG1131576
Benzo(g,h,i)perylene	0.0000563		0.0000500	1	07/02/2018 10:28	WG1131576
Chrysene	ND		0.0000500	1	07/02/2018 10:28	WG1131576
Fluorene	ND		0.0000500	1	07/02/2018 10:28	WG1131576
Naphthalene	ND		0.000250	1	07/02/2018 10:28	WG1131576
Phenanthrene	0.000106		0.0000500	1	07/02/2018 10:28	WG1131576
Pyrene	ND		0.0000500	1	07/02/2018 10:28	WG1131576
(S) Nitrobenzene-d5	*112*		*31.0-160*		*07/02/2018 10:28*	WG1131576
(S) 2-Fluorobiphenyl	*88.2*		*48.0-148*		*07/02/2018 10:28*	WG1131576
(S) p-Terphenyl-d14	*58.3*		*37.0-146*		*07/02/2018 10:28*	WG1131576

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	06/29/2018 21:33	WG1130984

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.301		0.0100	10	07/04/2018 04:28	WG1133088
Isopropylbenzene	0.0605		0.00100	1	06/29/2018 07:37	WG1131592
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 07:37	WG1131592
Ethylbenzene	0.0667		0.00100	1	06/29/2018 07:37	WG1131592
Methyl tert-butyl ether	ND		0.00100	1	06/29/2018 07:37	WG1131592
Toluene	0.0369		0.00100	1	06/29/2018 07:37	WG1131592
1,2,4-Trimethylbenzene	ND		0.00100	1	06/29/2018 07:37	WG1131592
1,3,5-Trimethylbenzene	0.00382		0.00100	1	06/29/2018 07:37	WG1131592
Xylenes, Total	0.0582		0.00300	1	06/29/2018 07:37	WG1131592
(S) Toluene-d8	*96.4*		*80.0-120*		*06/29/2018 07:37*	WG1131592
(S) Toluene-d8	*98.6*		*80.0-120*		*07/04/2018 04:28*	WG1133088
(S) Dibromofluoromethane	*90.4*		*76.0-123*		*06/29/2018 07:37*	WG1131592
(S) Dibromofluoromethane	*86.9*		*76.0-123*		*07/04/2018 04:28*	WG1133088
(S) 4-Bromofluorobenzene	*107*		*80.0-120*		*06/29/2018 07:37*	WG1131592
(S) 4-Bromofluorobenzene	*103*		*80.0-120*		*07/04/2018 04:28*	WG1133088

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000101	1.01	07/03/2018 00:31	WG1131066

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.000143		0.0000500	1	07/02/2018 10:50	WG1131576
Benzo(a)anthracene	ND		0.0000500	1	07/02/2018 10:50	WG1131576
Benzo(a)pyrene	ND		0.0000500	1	07/02/2018 10:50	WG1131576
Benzo(b)fluoranthene	ND		0.0000500	1	07/02/2018 10:50	WG1131576
Benzo(g,h,i)perylene	ND		0.0000500	1	07/02/2018 10:50	WG1131576
Chrysene	ND		0.0000500	1	07/02/2018 10:50	WG1131576
Fluorene	0.00210		0.0000500	1	07/02/2018 10:50	WG1131576
Naphthalene	0.0106		0.000250	1	07/02/2018 10:50	WG1131576
Phenanthrene	0.00156		0.0000500	1	07/02/2018 10:50	WG1131576
Pyrene	ND		0.0000500	1	07/02/2018 10:50	WG1131576
(S) Nitrobenzene-d5	*119*		*31.0-160*		*07/02/2018 10:50*	WG1131576
(S) 2-Fluorobiphenyl	*92.5*		*48.0-148*		*07/02/2018 10:50*	WG1131576
(S) p-Terphenyl-d14	*108*		*37.0-146*		*07/02/2018 10:50*	WG1131576

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	06/29/2018 21:38	WG1130984

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.276		0.0100	10	07/04/2018 04:48	WG1133088
Isopropylbenzene	0.00161		0.00100	1	06/29/2018 07:56	WG1131592
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 07:56	WG1131592
Ethylbenzene	ND		0.00100	1	06/29/2018 07:56	WG1131592
Methyl tert-butyl ether	0.0304		0.00100	1	06/29/2018 07:56	WG1131592
Toluene	0.00122		0.00100	1	06/29/2018 07:56	WG1131592
1,2,4-Trimethylbenzene	ND		0.00100	1	06/29/2018 07:56	WG1131592
1,3,5-Trimethylbenzene	ND		0.00100	1	06/29/2018 07:56	WG1131592
Xylenes, Total	ND		0.00300	1	06/29/2018 07:56	WG1131592
(S) Toluene-d8	*103*		*80.0-120*		*06/29/2018 07:56*	WG1131592
(S) Toluene-d8	*106*		*80.0-120*		*07/04/2018 04:48*	WG1133088
(S) Dibromofluoromethane	*91.3*		*76.0-123*		*06/29/2018 07:56*	WG1131592
(S) Dibromofluoromethane	*98.4*		*76.0-123*		*07/04/2018 04:48*	WG1133088
(S) 4-Bromofluorobenzene	*104*		*80.0-120*		*06/29/2018 07:56*	WG1131592
(S) 4-Bromofluorobenzene	*95.7*		*80.0-120*		*07/04/2018 04:48*	WG1133088

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/03/2018 00:43	WG1131066

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/02/2018 11:12	WG1131576
Benzo(a)anthracene	ND		0.0000500	1	07/02/2018 11:12	WG1131576
Benzo(a)pyrene	ND		0.0000500	1	07/02/2018 11:12	WG1131576
Benzo(b)fluoranthene	ND		0.0000500	1	07/02/2018 11:12	WG1131576
Benzo(g,h,i)perylene	ND		0.0000500	1	07/02/2018 11:12	WG1131576
Chrysene	ND		0.0000500	1	07/02/2018 11:12	WG1131576
Fluorene	ND		0.0000500	1	07/02/2018 11:12	WG1131576
Naphthalene	ND		0.000250	1	07/02/2018 11:12	WG1131576
Phenanthrene	ND		0.0000500	1	07/02/2018 11:12	WG1131576
Pyrene	ND		0.0000500	1	07/02/2018 11:12	WG1131576
(S) Nitrobenzene-d5	*109*		*31.0-160*		*07/02/2018 11:12*	WG1131576
(S) 2-Fluorobiphenyl	*103*		*48.0-148*		*07/02/2018 11:12*	WG1131576
(S) p-Terphenyl-d14	*100*		*37.0-146*		*07/02/2018 11:12*	WG1131576

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	06/29/2018 21:43	WG1130984

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.327		0.0100	10	07/04/2018 05:07	WG1133088
Isopropylbenzene	0.0547		0.00100	1	06/29/2018 08:14	WG1131592
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 08:14	WG1131592
Ethylbenzene	0.00781		0.00100	1	06/29/2018 08:14	WG1131592
Methyl tert-butyl ether	ND		0.00100	1	06/29/2018 08:14	WG1131592
Toluene	0.0216		0.00100	1	06/29/2018 08:14	WG1131592
1,2,4-Trimethylbenzene	ND		0.00100	1	06/29/2018 08:14	WG1131592
1,3,5-Trimethylbenzene	0.00269		0.00100	1	06/29/2018 08:14	WG1131592
Xylenes, Total	0.0276		0.00300	1	06/29/2018 08:14	WG1131592
(S) Toluene-d8	*95.5*		*80.0-120*		*06/29/2018 08:14*	WG1131592
(S) Toluene-d8	*99.6*		*80.0-120*		*07/04/2018 05:07*	WG1133088
(S) Dibromofluoromethane	*90.2*		*76.0-123*		*06/29/2018 08:14*	WG1131592
(S) Dibromofluoromethane	*85.8*		*76.0-123*		*07/04/2018 05:07*	WG1133088
(S) 4-Bromofluorobenzene	*105*		*80.0-120*		*06/29/2018 08:14*	WG1131592
(S) 4-Bromofluorobenzene	*95.8*		*80.0-120*		*07/04/2018 05:07*	WG1133088

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/03/2018 00:56	WG1131066

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.000160		0.000100	2	07/02/2018 11:34	WG1131576
Benzo(a)anthracene	ND		0.000100	2	07/02/2018 11:34	WG1131576
Benzo(a)pyrene	ND		0.000100	2	07/02/2018 11:34	WG1131576
Benzo(b)fluoranthene	ND		0.000100	2	07/02/2018 11:34	WG1131576
Benzo(g,h,i)perylene	ND		0.000100	2	07/02/2018 11:34	WG1131576
Chrysene	ND		0.000100	2	07/02/2018 11:34	WG1131576
Fluorene	0.00167		0.000100	2	07/02/2018 11:34	WG1131576
Naphthalene	0.00347		0.000500	2	07/02/2018 11:34	WG1131576
Phenanthrene	0.00146		0.000100	2	07/02/2018 11:34	WG1131576
Pyrene	ND		0.000100	2	07/02/2018 11:34	WG1131576
(S) Nitrobenzene-d5	*83.0*		*31.0-160*		*07/02/2018 11:34*	WG1131576
(S) 2-Fluorobiphenyl	*83.2*		*48.0-148*		*07/02/2018 11:34*	WG1131576
(S) p-Terphenyl-d14	*81.4*		*37.0-146*		*07/02/2018 11:34*	WG1131576

Sample Narrative:

L1004864-09 WG1131576: Dilution due to matrix impact during extraction procedure

Method Blank (MB)

(MB) R3322122-1 06/29/18 20:17

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Lead,Dissolved	U		0.000240	0.00200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3322122-2 06/29/18 20:22 • (LCSD) R3322122-3 06/29/18 20:27

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Lead,Dissolved	0.0500	0.0493	0.0497	98.7	99.3	80.0-120			0.658	20

L1005012-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1005012-01 06/29/18 20:32 • (MS) R3322122-5 06/29/18 20:42 • (MSD) R3322122-6 06/29/18 20:47

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Lead,Dissolved	0.0500	ND	0.0496	0.0497	99.2	99.4	1	75.0-125			0.162	20

Method Blank (MB)

(MB) R3321614-4 06/27/18 22:44

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dibromoethane	U		0.000381	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
tert-Butyl alcohol	U		0.00240	0.00500
(S) Toluene-d8	*98.1*			*80.0-120*
(S) Dibromofluoromethane	*96.5*			*76.0-123*
(S) 4-Bromofluorobenzene	*102*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3321614-1 06/27/18 20:50 • (LCSD) R3321614-2 06/27/18 21:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0274	0.0284	110	114	69.0-123			3.48	20
1,2-Dibromoethane	0.0250	0.0262	0.0262	105	105	77.0-123			0.0274	20
1,2-Dichloroethane	0.0250	0.0257	0.0265	103	106	67.0-126			2.87	20
Ethylbenzene	0.0250	0.0248	0.0252	99.2	101	77.0-120			1.60	20
Isopropylbenzene	0.0250	0.0257	0.0264	103	105	75.0-120			2.51	20
Methyl tert-butyl ether	0.0250	0.0260	0.0265	104	106	64.0-123			1.56	20
Toluene	0.0250	0.0252	0.0258	101	103	77.0-120			2.34	20
1,2,4-Trimethylbenzene	0.0250	0.0256	0.0265	103	106	75.0-120			3.48	20
1,3,5-Trimethylbenzene	0.0250	0.0244	0.0256	97.4	102	75.0-120			5.03	20
Xylenes, Total	0.0750	0.0743	0.0756	99.1	101	77.0-120			1.73	20
(S) Toluene-d8				*97.6*	*95.2*	*80.0-120*				
(S) Dibromofluoromethane				*95.1*	*94.8*	*76.0-123*				
(S) 4-Bromofluorobenzene				*101*	*100*	*80.0-120*				

Laboratory Control Sample (LCS)

(LCS) R3321614-3 06/27/18 21:28

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
tert-Butyl alcohol	0.0500	0.0267	53.4	50.0-150	
(S) Toluene-d8			*97.7*	*80.0-120*	
(S) Dibromofluoromethane			*96.5*	*76.0-123*	
(S) 4-Bromofluorobenzene			*101*	*80.0-120*	

Method Blank (MB)

(MB) R3322583-3 06/29/18 05:25

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*106*			*80.0-120*
(S) Dibromofluoromethane	*94.4*			*76.0-123*
(S) 4-Bromofluorobenzene	*109*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3322583-1 06/29/18 04:29 • (LCSD) R3322583-2 06/29/18 04:47

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0230	0.0222	92.2	88.6	69.0-123			3.88	20
1,2-Dichloroethane	0.0250	0.0226	0.0223	90.6	89.2	67.0-126			1.51	20
Ethylbenzene	0.0250	0.0272	0.0272	109	109	77.0-120			0.0468	20
Isopropylbenzene	0.0250	0.0282	0.0279	113	111	75.0-120			1.27	20
Methyl tert-butyl ether	0.0250	0.0223	0.0224	89.3	89.5	64.0-123			0.186	20
Toluene	0.0250	0.0255	0.0255	102	102	77.0-120			0.117	20
1,2,4-Trimethylbenzene	0.0250	0.0273	0.0273	109	109	75.0-120			0.112	20
1,3,5-Trimethylbenzene	0.0250	0.0276	0.0276	111	110	75.0-120			0.0463	20
Xylenes, Total	0.0750	0.0807	0.0790	108	105	77.0-120			2.13	20
(S) Toluene-d8				*106*	*105*	*80.0-120*				
(S) Dibromofluoromethane				*94.3*	*91.8*	*76.0-123*				
(S) 4-Bromofluorobenzene				*106*	*107*	*80.0-120*				

Method Blank (MB)

(MB) R3323000-3 07/03/18 22:50

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
(S) Toluene-d8	*107*			*80.0-120*
(S) Dibromofluoromethane	*98.7*			*76.0-123*
(S) 4-Bromofluorobenzene	*95.3*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323000-1 07/03/18 21:10 • (LCSD) R3323000-2 07/03/18 21:30

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0200	0.0216	80.2	86.2	69.0-123			7.25	20
(S) Toluene-d8				*108*	*105*	*80.0-120*				
(S) Dibromofluoromethane				*84.5*	*88.1*	*76.0-123*				
(S) 4-Bromofluorobenzene				*89.0*	*99.7*	*80.0-120*				

Method Blank (MB)

(MB) R3322840-1 07/02/18 20:24

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1004767-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1004767-01 07/02/18 21:13 • (DUP) R3322840-3 07/02/18 21:01

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	U	0.000	1.01			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3322840-4 07/02/18 23:16 • (LCSD) R3322840-5 07/03/18 01:46

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000226	0.000222	90.4	88.8	60.0-140			1.79	20

Method Blank (MB)

(MB) R3322009-3 06/29/18 14:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Chrysene	U		0.0000108	0.0000500
Fluorene	U		0.00000850	0.0000500
Naphthalene	U		0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
(S) Nitrobenzene-d5	*146*			*31.0-160*
(S) 2-Fluorobiphenyl	*103*			*48.0-148*
(S) p-Terphenyl-d14	*112*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3322009-1 06/29/18 13:26 • (LCSD) R3322009-2 06/29/18 13:47

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00208	0.00205	104	102	64.0-142			1.44	20
Benzo(a)anthracene	0.00200	0.00216	0.00212	108	106	59.0-134			1.83	20
Benzo(a)pyrene	0.00200	0.00215	0.00211	108	106	61.0-145			1.78	20
Benzo(b)fluoranthene	0.00200	0.00204	0.00210	102	105	57.0-136			2.66	20
Benzo(g,h,i)perylene	0.00200	0.00195	0.00194	97.7	97.0	54.0-140			0.746	20
Chrysene	0.00200	0.00204	0.00203	102	101	63.0-140			0.645	20
Fluorene	0.00200	0.00186	0.00181	93.0	90.4	64.0-129			2.75	20
Naphthalene	0.00200	0.00182	0.00182	90.8	91.2	68.0-129			0.390	20
Phenanthrene	0.00200	0.00186	0.00183	93.2	91.5	62.0-132			1.77	20
Pyrene	0.00200	0.00176	0.00175	88.2	87.7	58.0-156			0.469	20
(S) Nitrobenzene-d5				*139*	*133*	*31.0-160*				
(S) 2-Fluorobiphenyl				*93.9*	*96.4*	*48.0-148*				
(S) p-Terphenyl-d14				*98.2*	*97.9*	*37.0-146*				

Method Blank (MB)

(MB) R3322495-3 07/02/18 10:06

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Chrysene	U		0.0000108	0.0000500
Fluorene	U		0.00000850	0.0000500
Naphthalene	0.0000223	J	0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
(S) Nitrobenzene-d5	*106*			*31.0-160*
(S) 2-Fluorobiphenyl	*106*			*48.0-148*
(S) p-Terphenyl-d14	*106*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3322495-1 07/02/18 09:22 • (LCSD) R3322495-2 07/02/18 09:44

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00210	0.00214	105	107	64.0-142			1.87	20
Benzo(a)anthracene	0.00200	0.00215	0.00216	107	108	59.0-134			0.548	20
Benzo(a)pyrene	0.00200	0.00209	0.00208	105	104	61.0-145			0.824	20
Benzo(b)fluoranthene	0.00200	0.00223	0.00199	112	99.6	57.0-136			11.4	20
Benzo(g,h,i)perylene	0.00200	0.00218	0.00216	109	108	54.0-140			1.22	20
Chrysene	0.00200	0.00212	0.00213	106	107	63.0-140			0.601	20
Fluorene	0.00200	0.00206	0.00212	103	106	64.0-129			2.63	20
Naphthalene	0.00200	0.00206	0.00203	103	101	68.0-129			1.74	20
Phenanthrene	0.00200	0.00212	0.00213	106	107	62.0-132			0.650	20
Pyrene	0.00200	0.00212	0.00216	106	108	58.0-156			1.68	20
(S) Nitrobenzene-d5				*107*	*105*	*31.0-160*				
(S) 2-Fluorobiphenyl				*101*	*96.9*	*48.0-148*				
(S) p-Terphenyl-d14				*104*	*103*	*37.0-146*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

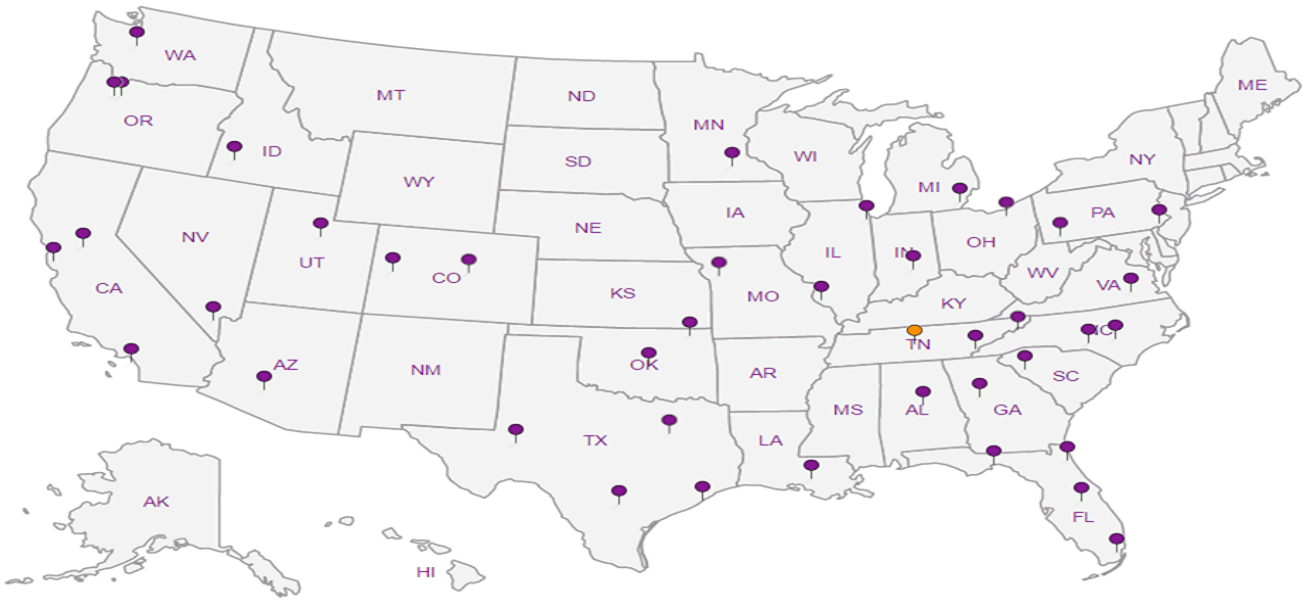
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Stantec - S/E

1060 Andrew Drive, Suite 140
West Chester, PA 19380

Billing Information:
Accounts Payable
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Pres Chk

Report to: **Jennifer Menges**

Email To: **Jennifer.Menges@stantec.com**

Project Description: Evergreen - GWS

City/State Collected: Philadelphia, PA

Phone: ~~267-240-3415~~ Fax: 610-425-9311

Client Project # 213402429

Lab Project # **SUNSTANTEC-PHL**

Collected by (print): Dane Hopkins/Karl Muhly

Site/Facility ID #

P.O. # 213402429

Collected by (signature): Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC LABORATORIES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L # L004864
Tab A186

Acctnum: **SUNSTANTEC**
Template: **T137388**
Prelogin: **P659137**
TSR: **134 - Mark Beasley**
PB: 6-18-18
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Evergreen Short List - Various	Dissolved Pb (Lab) - 250ml plastic NP (Lab to Filter)	VOCs/TBA - 3 - 40ml vials w/ HCL	V8260BTEX only - 3 - 40ml vials w/ HCL	MTBE/TBA only - 3 - 40ml vials w/ HCL	Remarks	Sample # (lab only)
FB-20180625	G	GW	—	6/25/18	0900	9	X	X					-01
TB-20180625	—	GW	—	6/25/18	—	1			X				-02
S-351-20180625	G	GW	30'	6/25/18	1040	9	X	X					-03
S-3-20180625	G	GW	10'	6/25/18	1200	9	X	X					-04
S-280-20180625	G	GW	17.5'	6/25/18	1325	9	X	X					-05
S-280DUP-20180625	G	GW	24.5'	6/25/18	1325	9	X	X					-06
ARCO-2-20180625	G	GW	29'	6/25/18	1100	9	X	X					-07
ARCO-1D-20180625	G	GW	70'	6/25/18	1215	9	X	X					-08
ARCO-1-20180625	G	GW	30	6/25/18	1425	9	X	X					-09
		GW											

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: See attached List
Various = 3 - 40ml vials w/ HCL, 3 - 40ml vials w/ NaThio, 2 - 40ml vials NP, and 1 - 250ml plastic NP
*EQuIS EDD Format
*Standard TAT

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 4380 6879 4872

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	6/25/18	1615	ESCPA lookout	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.3 °C Bottles Received: 72
ESCPA lookout	6/26/18	8:30		If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/27/18 Time: 0814

Hold: Condition: NCF / OK

L1004864

Table 1
Evergreen Petroleum Short List of Constituents of Concern

VOCs by EPA Method 8260	CAS No.
Benzene	71-43-2
Cumene	98-82-8
Dichloroethane, 1,2-	107-06-2
Ethylbenzene	100-41-4
Ethylene Dibromide*	106-93-4
Methyl tert butyl ether	1634-04-4
Toluene	108-88-3
Trimethylbenzene, 1,2,4-	95-63-6
Trimethylbenzene, 1,3,5-	108-67-8
Xylenes	1330-20-7

SVOCs by EPA Method 8270	CAS No.
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Chrysene	218-01-9
Fluorene	86-73-7
Naphthalene**	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Metals by Method 6010/6020	CAS No.
Lead***	7439-92-1

*Ethylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

**Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

***Metals analysis should be total in soil and dissolved in groundwater.

This list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline and No. 1, 2, 4, 5, 6 Fuel Oils).

Stantec

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

July 26, 2018

Stantec - S/E

Sample Delivery Group:	L1005209
Samples Received:	06/28/2018
Project Number:	213402429
Description:	Evergreen-Phil GWS

Report To: Jennifer Menges
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 3

Cn: Case Narrative 6

Sr: Sample Results 7

ARCO_3_20180626 L1005209-01 7

S_398_20180626 L1005209-02 8

S_230_20180626 L1005209-03 9

S_50_20180626 L1005209-04 10

S_25_20180626 L1005209-05 11

C-62_20180626 L1005209-06 12

C-104_20180626 L1005209-07 13

C-127_20180626 L1005209-08 14

C-129_20180626 L1005209-09 15

S-25 DUP_20180626 L1005209-10 16

S-380_20180626 L1005209-11 17

S-38_20180626 L1005209-12 18

RW-715_20180626 L1005209-13 19

TB_20180626 L1005209-14 20

Qc: Quality Control Summary 21

Metals (ICPMS) by Method 6020 21

Volatile Organic Compounds (GC/MS) by Method 8260B 22

EDB / DBCP by Method 8011 27

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM 29

Gl: Glossary of Terms 30

Al: Accreditations & Locations 31

Sc: Sample Chain of Custody 32

ARCO_3_20180626 L1005209-01 GW

Collected by: KM/DH | Collected date/time: 06/26/18 09:20 | Received date/time: 06/28/18 09:57

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130986	1	07/02/18 16:46	07/03/18 12:17	LAT
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131592	1	06/29/18 10:44	06/29/18 10:44	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133088	50	07/04/18 05:28	07/04/18 05:28	BMB
EDB / DBCP by Method 8011	WG1133223	1.01	07/03/18 09:29	07/03/18 22:24	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1132636	1	07/02/18 16:15	07/02/18 22:01	KM

S_398_20180626 L1005209-02 GW

Collected by: KM/DH | Collected date/time: 06/26/18 11:10 | Received date/time: 06/28/18 09:57

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131595	1	06/29/18 02:15	06/29/18 02:15	BMB
EDB / DBCP by Method 8011	WG1140686	1	07/20/18 08:51	07/21/18 02:01	ADF

S_230_20180626 L1005209-03 GW

Collected by: KM/DH | Collected date/time: 06/26/18 13:45 | Received date/time: 06/28/18 09:57

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131592	1	06/29/18 11:03	06/29/18 11:03	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133088	50	07/04/18 05:47	07/04/18 05:47	BMB

S_50_20180626 L1005209-04 GW

Collected by: KM/DH | Collected date/time: 06/26/18 14:20 | Received date/time: 06/28/18 09:57

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130986	1	07/02/18 16:46	07/03/18 12:22	LAT
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131593	1	06/29/18 11:23	06/29/18 11:23	JCP
EDB / DBCP by Method 8011	WG1133223	1	07/03/18 09:29	07/03/18 23:00	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1132636	1	07/02/18 16:15	07/02/18 22:23	KM

S_25_20180626 L1005209-05 GW

Collected by: KM/DH | Collected date/time: 06/26/18 09:15 | Received date/time: 06/28/18 09:57

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130986	1	07/02/18 16:46	07/03/18 12:36	LAT
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131593	1	06/29/18 11:42	06/29/18 11:42	JCP
EDB / DBCP by Method 8011	WG1133223	1	07/03/18 09:29	07/03/18 23:12	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1132636	1	07/02/18 16:15	07/02/18 22:44	KM

C-62_20180626 L1005209-06 GW

Collected by: KM/DH | Collected date/time: 06/26/18 10:30 | Received date/time: 06/28/18 09:57

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130986	1	07/02/18 16:46	07/03/18 12:40	LAT
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131593	1	06/29/18 12:02	06/29/18 12:02	JCP
EDB / DBCP by Method 8011	WG1133223	.995	07/03/18 09:29	07/03/18 23:25	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1132636	1	07/02/18 16:15	07/02/18 23:06	KM

C-104_20180626 L1005209-07 GW

Collected by: KM/DH | Collected date/time: 06/26/18 11:30 | Received date/time: 06/28/18 09:57

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130986	1	07/02/18 16:46	07/03/18 12:45	LAT
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131593	1	06/29/18 12:21	06/29/18 12:21	JCP
EDB / DBCP by Method 8011	WG1133223	.998	07/03/18 09:29	07/03/18 23:36	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1132636	1	07/02/18 16:15	07/02/18 23:28	KM

C-127_20180626 L1005209-08 GW

Collected by: KM/DH | Collected date/time: 06/26/18 12:20 | Received date/time: 06/28/18 09:57

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130986	1	07/02/18 16:46	07/03/18 12:49	LAT
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131593	1	06/29/18 12:40	06/29/18 12:40	JCP
EDB / DBCP by Method 8011	WG1133223	.995	07/03/18 09:29	07/03/18 23:49	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1132636	1	07/02/18 16:15	07/02/18 23:50	KM

C-129_20180626 L1005209-09 GW

Collected by: KM/DH | Collected date/time: 06/26/18 13:30 | Received date/time: 06/28/18 09:57

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130986	1	07/02/18 16:46	07/03/18 12:54	LAT
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131593	1	06/29/18 13:00	06/29/18 13:00	JCP
EDB / DBCP by Method 8011	WG1133223	1	07/03/18 09:29	07/04/18 00:00	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1132636	1	07/02/18 16:15	07/03/18 00:11	KM

S-25 DUP_20180626 L1005209-10 GW

Collected by: KM/DH | Collected date/time: 06/26/18 09:15 | Received date/time: 06/28/18 09:57

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130986	1	07/02/18 16:46	07/03/18 11:54	LAT
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131593	1	06/29/18 13:19	06/29/18 13:19	JCP
EDB / DBCP by Method 8011	WG1133223	1	07/03/18 09:29	07/04/18 00:12	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1132636	1	07/02/18 16:15	07/03/18 00:33	KM

S-380_20180626 L1005209-11 GW

Collected by: KM/DH | Collected date/time: 06/26/18 10:31 | Received date/time: 06/28/18 09:57

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130986	1	07/02/18 16:46	07/03/18 12:59	LAT
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131593	1	06/29/18 13:38	06/29/18 13:38	JCP
EDB / DBCP by Method 8011	WG1133223	1	07/03/18 09:29	07/04/18 00:25	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1132636	1	07/02/18 16:15	07/03/18 00:55	KM

S-38_20180626 L1005209-12 GW

Collected by: KM/DH | Collected date/time: 06/26/18 12:33 | Received date/time: 06/28/18 09:57

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130986	1	07/02/18 16:46	07/03/18 13:03	LAT
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131593	1	06/29/18 13:58	06/29/18 13:58	JCP
EDB / DBCP by Method 8011	WG1133223	1.01	07/03/18 09:29	07/04/18 00:37	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1132636	1	07/02/18 16:15	07/03/18 01:17	KM

RW-715_20180626 L1005209-13 GW

Collected by	Collected date/time	Received date/time
KM/DH	06/26/18 13:15	06/28/18 09:57

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130986	1	07/02/18 16:46	07/03/18 13:08	LAT
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131593	1	06/29/18 14:17	06/29/18 14:17	JCP
EDB / DBCP by Method 8011	WG1133223	1	07/03/18 09:29	07/04/18 00:49	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1132636	1	07/02/18 16:15	07/03/18 01:39	KM

TB_20180626 L1005209-14 GW

Collected by	Collected date/time	Received date/time
KM/DH	06/26/18 00:00	06/28/18 09:57

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131595	1	06/28/18 23:48	06/28/18 23:48	BMB

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Mark W. Beasley
Project Manager

Project Narrative

SV8011 was analyzed outside of the 14 day holding time due to lab error.

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/03/2018 12:17	WG1130986

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	2.08		0.0500	50	07/04/2018 05:28	WG1133088
Isopropylbenzene	0.0680		0.00100	1	06/29/2018 10:44	WG1131592
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 10:44	WG1131592
Ethylbenzene	0.0460		0.00100	1	06/29/2018 10:44	WG1131592
Methyl tert-butyl ether	ND		0.00100	1	06/29/2018 10:44	WG1131592
Toluene	0.108		0.00100	1	06/29/2018 10:44	WG1131592
1,2,4-Trimethylbenzene	0.0110		0.00100	1	06/29/2018 10:44	WG1131592
1,3,5-Trimethylbenzene	0.0148		0.00100	1	06/29/2018 10:44	WG1131592
Xylenes, Total	0.122		0.00300	1	06/29/2018 10:44	WG1131592
(S) Toluene-d8	*96.2*		*80.0-120*		*06/29/2018 10:44*	WG1131592
(S) Toluene-d8	*105*		*80.0-120*		*07/04/2018 05:28*	WG1133088
(S) Dibromofluoromethane	*104*		*76.0-123*		*06/29/2018 10:44*	WG1131592
(S) Dibromofluoromethane	*90.6*		*76.0-123*		*07/04/2018 05:28*	WG1133088
(S) 4-Bromofluorobenzene	*106*		*80.0-120*		*06/29/2018 10:44*	WG1131592
(S) 4-Bromofluorobenzene	*97.5*		*80.0-120*		*07/04/2018 05:28*	WG1133088

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000101	1.01	07/03/2018 22:24	WG1133223

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.000153		0.0000500	1	07/02/2018 22:01	WG1132636
Benzo(a)anthracene	ND		0.0000500	1	07/02/2018 22:01	WG1132636
Benzo(a)pyrene	ND		0.0000500	1	07/02/2018 22:01	WG1132636
Benzo(b)fluoranthene	ND		0.0000500	1	07/02/2018 22:01	WG1132636
Benzo(g,h,i)perylene	ND		0.0000500	1	07/02/2018 22:01	WG1132636
Chrysene	ND		0.0000500	1	07/02/2018 22:01	WG1132636
Fluorene	0.00161		0.0000500	1	07/02/2018 22:01	WG1132636
Naphthalene	0.00123		0.000250	1	07/02/2018 22:01	WG1132636
Phenanthrene	0.000827		0.0000500	1	07/02/2018 22:01	WG1132636
Pyrene	ND		0.0000500	1	07/02/2018 22:01	WG1132636
(S) Nitrobenzene-d5	*92.8*		*31.0-160*		*07/02/2018 22:01*	WG1132636
(S) 2-Fluorobiphenyl	*106*		*48.0-148*		*07/02/2018 22:01*	WG1132636
(S) p-Terphenyl-d14	*102*		*37.0-146*		*07/02/2018 22:01*	WG1132636

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/29/2018 02:15	WG1131595
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 02:15	WG1131595
Ethylbenzene	ND		0.00100	1	06/29/2018 02:15	WG1131595
Isopropylbenzene	ND		0.00100	1	06/29/2018 02:15	WG1131595
Toluene	ND		0.00100	1	06/29/2018 02:15	WG1131595
1,2,4-Trimethylbenzene	ND		0.00100	1	06/29/2018 02:15	WG1131595
1,3,5-Trimethylbenzene	ND		0.00100	1	06/29/2018 02:15	WG1131595
Xylenes, Total	ND		0.00300	1	06/29/2018 02:15	WG1131595
Methyl tert-butyl ether	ND		0.00100	1	06/29/2018 02:15	WG1131595
tert-Butyl alcohol	0.0247		0.00500	1	06/29/2018 02:15	WG1131595
(S) Toluene-d8	*107*		*80.0-120*		*06/29/2018 02:15*	WG1131595
(S) Dibromofluoromethane	*96.0*		*76.0-123*		*06/29/2018 02:15*	WG1131595
(S) 4-Bromofluorobenzene	*95.1*		*80.0-120*		*06/29/2018 02:15*	WG1131595

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND	T8	0.0000100	1	07/21/2018 02:01	WG1140686

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	3.38		0.0500	50	07/04/2018 05:47	WG1133088
Toluene	0.00424		0.00100	1	06/29/2018 11:03	WG1131592
Ethylbenzene	0.0180		0.00100	1	06/29/2018 11:03	WG1131592
Total Xylenes	0.0120		0.00300	1	06/29/2018 11:03	WG1131592
(S) Toluene-d8	*112*		*80.0-120*		*06/29/2018 11:03*	WG1131592
(S) Toluene-d8	*105*		*80.0-120*		*07/04/2018 05:47*	WG1133088
(S) Dibromofluoromethane	*104*		*76.0-123*		*06/29/2018 11:03*	WG1131592
(S) Dibromofluoromethane	*89.8*		*76.0-123*		*07/04/2018 05:47*	WG1133088
(S) a,a,a-Trifluorotoluene	*98.2*		*80.0-120*		*06/29/2018 11:03*	WG1131592
(S) a,a,a-Trifluorotoluene	*103*		*80.0-120*		*07/04/2018 05:47*	WG1133088
(S) 4-Bromofluorobenzene	*104*		*80.0-120*		*06/29/2018 11:03*	WG1131592
(S) 4-Bromofluorobenzene	*99.5*		*80.0-120*		*07/04/2018 05:47*	WG1133088

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/03/2018 12:22	WG1130986

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/29/2018 11:23	WG1131593
Isopropylbenzene	ND		0.00100	1	06/29/2018 11:23	WG1131593
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 11:23	WG1131593
Ethylbenzene	ND		0.00100	1	06/29/2018 11:23	WG1131593
Methyl tert-butyl ether	ND		0.00100	1	06/29/2018 11:23	WG1131593
Toluene	ND		0.00100	1	06/29/2018 11:23	WG1131593
1,2,4-Trimethylbenzene	ND		0.00100	1	06/29/2018 11:23	WG1131593
1,3,5-Trimethylbenzene	ND		0.00100	1	06/29/2018 11:23	WG1131593
Xylenes, Total	ND		0.00300	1	06/29/2018 11:23	WG1131593
(S) Toluene-d8	*97.8*		*80.0-120*		*06/29/2018 11:23*	WG1131593
(S) Dibromofluoromethane	*94.6*		*76.0-123*		*06/29/2018 11:23*	WG1131593
(S) 4-Bromofluorobenzene	*95.8*		*80.0-120*		*06/29/2018 11:23*	WG1131593

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/03/2018 23:00	WG1133223

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/02/2018 22:23	WG1132636
Benzo(a)anthracene	ND		0.0000500	1	07/02/2018 22:23	WG1132636
Benzo(a)pyrene	ND		0.0000500	1	07/02/2018 22:23	WG1132636
Benzo(b)fluoranthene	ND		0.0000500	1	07/02/2018 22:23	WG1132636
Benzo(g,h,i)perylene	ND		0.0000500	1	07/02/2018 22:23	WG1132636
Chrysene	ND		0.0000500	1	07/02/2018 22:23	WG1132636
Fluorene	0.0000590		0.0000500	1	07/02/2018 22:23	WG1132636
Naphthalene	ND		0.000250	1	07/02/2018 22:23	WG1132636
Phenanthrene	ND		0.0000500	1	07/02/2018 22:23	WG1132636
Pyrene	ND		0.0000500	1	07/02/2018 22:23	WG1132636
(S) Nitrobenzene-d5	*91.3*		*31.0-160*		*07/02/2018 22:23*	WG1132636
(S) 2-Fluorobiphenyl	*102*		*48.0-148*		*07/02/2018 22:23*	WG1132636
(S) p-Terphenyl-d14	*81.0*		*37.0-146*		*07/02/2018 22:23*	WG1132636

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/03/2018 12:36	WG1130986

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/29/2018 11:42	WG1131593
Isopropylbenzene	ND		0.00100	1	06/29/2018 11:42	WG1131593
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 11:42	WG1131593
Ethylbenzene	ND		0.00100	1	06/29/2018 11:42	WG1131593
Methyl tert-butyl ether	0.00209		0.00100	1	06/29/2018 11:42	WG1131593
Toluene	ND		0.00100	1	06/29/2018 11:42	WG1131593
1,2,4-Trimethylbenzene	ND		0.00100	1	06/29/2018 11:42	WG1131593
1,3,5-Trimethylbenzene	ND		0.00100	1	06/29/2018 11:42	WG1131593
Xylenes, Total	ND		0.00300	1	06/29/2018 11:42	WG1131593
(S) Toluene-d8	*98.7*		*80.0-120*		*06/29/2018 11:42*	WG1131593
(S) Dibromofluoromethane	*95.0*		*76.0-123*		*06/29/2018 11:42*	WG1131593
(S) 4-Bromofluorobenzene	*99.1*		*80.0-120*		*06/29/2018 11:42*	WG1131593

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/03/2018 23:12	WG1133223

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/02/2018 22:44	WG1132636
Benzo(a)anthracene	ND		0.0000500	1	07/02/2018 22:44	WG1132636
Benzo(a)pyrene	ND		0.0000500	1	07/02/2018 22:44	WG1132636
Benzo(b)fluoranthene	ND		0.0000500	1	07/02/2018 22:44	WG1132636
Benzo(g,h,i)perylene	ND		0.0000500	1	07/02/2018 22:44	WG1132636
Chrysene	ND		0.0000500	1	07/02/2018 22:44	WG1132636
Fluorene	ND		0.0000500	1	07/02/2018 22:44	WG1132636
Naphthalene	ND		0.000250	1	07/02/2018 22:44	WG1132636
Phenanthrene	ND		0.0000500	1	07/02/2018 22:44	WG1132636
Pyrene	ND		0.0000500	1	07/02/2018 22:44	WG1132636
(S) Nitrobenzene-d5	*92.2*		*31.0-160*		*07/02/2018 22:44*	WG1132636
(S) 2-Fluorobiphenyl	*108*		*48.0-148*		*07/02/2018 22:44*	WG1132636
(S) p-Terphenyl-d14	*94.3*		*37.0-146*		*07/02/2018 22:44*	WG1132636

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/03/2018 12:40	WG1130986

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/29/2018 12:02	WG1131593
Isopropylbenzene	ND		0.00100	1	06/29/2018 12:02	WG1131593
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 12:02	WG1131593
Ethylbenzene	ND		0.00100	1	06/29/2018 12:02	WG1131593
Methyl tert-butyl ether	ND		0.00100	1	06/29/2018 12:02	WG1131593
Toluene	ND		0.00100	1	06/29/2018 12:02	WG1131593
1,2,4-Trimethylbenzene	ND		0.00100	1	06/29/2018 12:02	WG1131593
1,3,5-Trimethylbenzene	ND		0.00100	1	06/29/2018 12:02	WG1131593
Xylenes, Total	ND		0.00300	1	06/29/2018 12:02	WG1131593
(S) Toluene-d8	*97.9*		*80.0-120*		*06/29/2018 12:02*	WG1131593
(S) Dibromofluoromethane	*94.7*		*76.0-123*		*06/29/2018 12:02*	WG1131593
(S) 4-Bromofluorobenzene	*95.3*		*80.0-120*		*06/29/2018 12:02*	WG1131593

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.995	07/03/2018 23:25	WG1133223

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.000113		0.0000500	1	07/02/2018 23:06	WG1132636
Benzo(a)anthracene	ND		0.0000500	1	07/02/2018 23:06	WG1132636
Benzo(a)pyrene	ND		0.0000500	1	07/02/2018 23:06	WG1132636
Benzo(b)fluoranthene	ND		0.0000500	1	07/02/2018 23:06	WG1132636
Benzo(g,h,i)perylene	ND		0.0000500	1	07/02/2018 23:06	WG1132636
Chrysene	ND		0.0000500	1	07/02/2018 23:06	WG1132636
Fluorene	0.000515		0.0000500	1	07/02/2018 23:06	WG1132636
Naphthalene	0.00658		0.000250	1	07/02/2018 23:06	WG1132636
Phenanthrene	0.000344		0.0000500	1	07/02/2018 23:06	WG1132636
Pyrene	0.0000542		0.0000500	1	07/02/2018 23:06	WG1132636
(S) Nitrobenzene-d5	*107*		*31.0-160*		*07/02/2018 23:06*	WG1132636
(S) 2-Fluorobiphenyl	*95.9*		*48.0-148*		*07/02/2018 23:06*	WG1132636
(S) p-Terphenyl-d14	*97.3*		*37.0-146*		*07/02/2018 23:06*	WG1132636

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/03/2018 12:45	WG1130986

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/29/2018 12:21	WG1131593
Isopropylbenzene	ND		0.00100	1	06/29/2018 12:21	WG1131593
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 12:21	WG1131593
Ethylbenzene	ND		0.00100	1	06/29/2018 12:21	WG1131593
Methyl tert-butyl ether	ND		0.00100	1	06/29/2018 12:21	WG1131593
Toluene	ND		0.00100	1	06/29/2018 12:21	WG1131593
1,2,4-Trimethylbenzene	ND		0.00100	1	06/29/2018 12:21	WG1131593
1,3,5-Trimethylbenzene	ND		0.00100	1	06/29/2018 12:21	WG1131593
Xylenes, Total	ND		0.00300	1	06/29/2018 12:21	WG1131593
(S) Toluene-d8	*97.2*		*80.0-120*		*06/29/2018 12:21*	WG1131593
(S) Dibromofluoromethane	*94.3*		*76.0-123*		*06/29/2018 12:21*	WG1131593
(S) 4-Bromofluorobenzene	*97.0*		*80.0-120*		*06/29/2018 12:21*	WG1131593

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.998	07/03/2018 23:36	WG1133223

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.000480		0.0000500	1	07/02/2018 23:28	WG1132636
Benzo(a)anthracene	0.0000909		0.0000500	1	07/02/2018 23:28	WG1132636
Benzo(a)pyrene	ND		0.0000500	1	07/02/2018 23:28	WG1132636
Benzo(b)fluoranthene	ND		0.0000500	1	07/02/2018 23:28	WG1132636
Benzo(g,h,i)perylene	ND		0.0000500	1	07/02/2018 23:28	WG1132636
Chrysene	0.000103		0.0000500	1	07/02/2018 23:28	WG1132636
Fluorene	0.00339		0.0000500	1	07/02/2018 23:28	WG1132636
Naphthalene	ND		0.000250	1	07/02/2018 23:28	WG1132636
Phenanthrene	0.000285		0.0000500	1	07/02/2018 23:28	WG1132636
Pyrene	0.00156		0.0000500	1	07/02/2018 23:28	WG1132636
(S) Nitrobenzene-d5	*121*		*31.0-160*		*07/02/2018 23:28*	WG1132636
(S) 2-Fluorobiphenyl	*85.6*		*48.0-148*		*07/02/2018 23:28*	WG1132636
(S) p-Terphenyl-d14	*97.0*		*37.0-146*		*07/02/2018 23:28*	WG1132636

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/03/2018 12:49	WG1130986

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/29/2018 12:40	WG1131593
Isopropylbenzene	0.00137		0.00100	1	06/29/2018 12:40	WG1131593
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 12:40	WG1131593
Ethylbenzene	ND		0.00100	1	06/29/2018 12:40	WG1131593
Methyl tert-butyl ether	0.00411		0.00100	1	06/29/2018 12:40	WG1131593
Toluene	ND		0.00100	1	06/29/2018 12:40	WG1131593
1,2,4-Trimethylbenzene	ND		0.00100	1	06/29/2018 12:40	WG1131593
1,3,5-Trimethylbenzene	ND		0.00100	1	06/29/2018 12:40	WG1131593
Xylenes, Total	ND		0.00300	1	06/29/2018 12:40	WG1131593
(S) Toluene-d8	*98.2*		*80.0-120*		*06/29/2018 12:40*	WG1131593
(S) Dibromofluoromethane	*94.7*		*76.0-123*		*06/29/2018 12:40*	WG1131593
(S) 4-Bromofluorobenzene	*97.8*		*80.0-120*		*06/29/2018 12:40*	WG1131593

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.995	07/03/2018 23:49	WG1133223

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.000456		0.0000500	1	07/02/2018 23:50	WG1132636
Benzo(a)anthracene	0.0000591		0.0000500	1	07/02/2018 23:50	WG1132636
Benzo(a)pyrene	ND		0.0000500	1	07/02/2018 23:50	WG1132636
Benzo(b)fluoranthene	ND		0.0000500	1	07/02/2018 23:50	WG1132636
Benzo(g,h,i)perylene	ND		0.0000500	1	07/02/2018 23:50	WG1132636
Chrysene	0.0000880		0.0000500	1	07/02/2018 23:50	WG1132636
Fluorene	0.00314		0.0000500	1	07/02/2018 23:50	WG1132636
Naphthalene	ND		0.000250	1	07/02/2018 23:50	WG1132636
Phenanthrene	ND		0.0000500	1	07/02/2018 23:50	WG1132636
Pyrene	0.00107		0.0000500	1	07/02/2018 23:50	WG1132636
(S) Nitrobenzene-d5	*86.6*		*31.0-160*		*07/02/2018 23:50*	WG1132636
(S) 2-Fluorobiphenyl	*84.3*		*48.0-148*		*07/02/2018 23:50*	WG1132636
(S) p-Terphenyl-d14	*95.2*		*37.0-146*		*07/02/2018 23:50*	WG1132636

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/03/2018 12:54	WG1130986

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/29/2018 13:00	WG1131593
Isopropylbenzene	ND		0.00100	1	06/29/2018 13:00	WG1131593
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 13:00	WG1131593
Ethylbenzene	ND		0.00100	1	06/29/2018 13:00	WG1131593
Methyl tert-butyl ether	ND		0.00100	1	06/29/2018 13:00	WG1131593
Toluene	ND		0.00100	1	06/29/2018 13:00	WG1131593
1,2,4-Trimethylbenzene	ND		0.00100	1	06/29/2018 13:00	WG1131593
1,3,5-Trimethylbenzene	ND		0.00100	1	06/29/2018 13:00	WG1131593
Xylenes, Total	ND		0.00300	1	06/29/2018 13:00	WG1131593
(S) Toluene-d8	*96.8*		*80.0-120*		*06/29/2018 13:00*	WG1131593
(S) Dibromofluoromethane	*94.9*		*76.0-123*		*06/29/2018 13:00*	WG1131593
(S) 4-Bromofluorobenzene	*97.6*		*80.0-120*		*06/29/2018 13:00*	WG1131593

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/04/2018 00:00	WG1133223

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/03/2018 00:11	WG1132636
Benzo(a)anthracene	ND		0.0000500	1	07/03/2018 00:11	WG1132636
Benzo(a)pyrene	ND		0.0000500	1	07/03/2018 00:11	WG1132636
Benzo(b)fluoranthene	ND		0.0000500	1	07/03/2018 00:11	WG1132636
Benzo(g,h,i)perylene	ND		0.0000500	1	07/03/2018 00:11	WG1132636
Chrysene	ND		0.0000500	1	07/03/2018 00:11	WG1132636
Fluorene	ND		0.0000500	1	07/03/2018 00:11	WG1132636
Naphthalene	ND		0.000250	1	07/03/2018 00:11	WG1132636
Phenanthrene	ND		0.0000500	1	07/03/2018 00:11	WG1132636
Pyrene	ND		0.0000500	1	07/03/2018 00:11	WG1132636
(S) Nitrobenzene-d5	*86.2*		*31.0-160*		*07/03/2018 00:11*	WG1132636
(S) 2-Fluorobiphenyl	*104*		*48.0-148*		*07/03/2018 00:11*	WG1132636
(S) p-Terphenyl-d14	*94.0*		*37.0-146*		*07/03/2018 00:11*	WG1132636

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/03/2018 11:54	WG1130986

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/29/2018 13:19	WG1131593
Isopropylbenzene	ND		0.00100	1	06/29/2018 13:19	WG1131593
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 13:19	WG1131593
Ethylbenzene	ND		0.00100	1	06/29/2018 13:19	WG1131593
Methyl tert-butyl ether	0.00209		0.00100	1	06/29/2018 13:19	WG1131593
Toluene	ND		0.00100	1	06/29/2018 13:19	WG1131593
1,2,4-Trimethylbenzene	ND		0.00100	1	06/29/2018 13:19	WG1131593
1,3,5-Trimethylbenzene	ND		0.00100	1	06/29/2018 13:19	WG1131593
Xylenes, Total	ND		0.00300	1	06/29/2018 13:19	WG1131593
(S) Toluene-d8	*97.9*		*80.0-120*		*06/29/2018 13:19*	WG1131593
(S) Dibromofluoromethane	*94.7*		*76.0-123*		*06/29/2018 13:19*	WG1131593
(S) 4-Bromofluorobenzene	*93.6*		*80.0-120*		*06/29/2018 13:19*	WG1131593

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/04/2018 00:12	WG1133223

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/03/2018 00:33	WG1132636
Benzo(a)anthracene	ND		0.0000500	1	07/03/2018 00:33	WG1132636
Benzo(a)pyrene	ND		0.0000500	1	07/03/2018 00:33	WG1132636
Benzo(b)fluoranthene	ND		0.0000500	1	07/03/2018 00:33	WG1132636
Benzo(g,h,i)perylene	ND		0.0000500	1	07/03/2018 00:33	WG1132636
Chrysene	ND		0.0000500	1	07/03/2018 00:33	WG1132636
Fluorene	ND		0.0000500	1	07/03/2018 00:33	WG1132636
Naphthalene	ND		0.000250	1	07/03/2018 00:33	WG1132636
Phenanthrene	ND		0.0000500	1	07/03/2018 00:33	WG1132636
Pyrene	ND		0.0000500	1	07/03/2018 00:33	WG1132636
(S) Nitrobenzene-d5	*90.0*		*31.0-160*		*07/03/2018 00:33*	WG1132636
(S) 2-Fluorobiphenyl	*107*		*48.0-148*		*07/03/2018 00:33*	WG1132636
(S) p-Terphenyl-d14	*99.3*		*37.0-146*		*07/03/2018 00:33*	WG1132636

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/03/2018 12:59	WG1130986

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/29/2018 13:38	WG1131593
Isopropylbenzene	ND		0.00100	1	06/29/2018 13:38	WG1131593
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 13:38	WG1131593
Ethylbenzene	ND		0.00100	1	06/29/2018 13:38	WG1131593
Methyl tert-butyl ether	ND		0.00100	1	06/29/2018 13:38	WG1131593
Toluene	ND		0.00100	1	06/29/2018 13:38	WG1131593
1,2,4-Trimethylbenzene	ND		0.00100	1	06/29/2018 13:38	WG1131593
1,3,5-Trimethylbenzene	ND		0.00100	1	06/29/2018 13:38	WG1131593
Xylenes, Total	ND		0.00300	1	06/29/2018 13:38	WG1131593
(S) Toluene-d8	*95.7*		*80.0-120*		*06/29/2018 13:38*	WG1131593
(S) Dibromofluoromethane	*94.6*		*76.0-123*		*06/29/2018 13:38*	WG1131593
(S) 4-Bromofluorobenzene	*98.7*		*80.0-120*		*06/29/2018 13:38*	WG1131593

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/04/2018 00:25	WG1133223

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/03/2018 00:55	WG1132636
Benzo(a)anthracene	ND		0.0000500	1	07/03/2018 00:55	WG1132636
Benzo(a)pyrene	ND		0.0000500	1	07/03/2018 00:55	WG1132636
Benzo(b)fluoranthene	ND		0.0000500	1	07/03/2018 00:55	WG1132636
Benzo(g,h,i)perylene	ND		0.0000500	1	07/03/2018 00:55	WG1132636
Chrysene	ND		0.0000500	1	07/03/2018 00:55	WG1132636
Fluorene	ND		0.0000500	1	07/03/2018 00:55	WG1132636
Naphthalene	ND		0.000250	1	07/03/2018 00:55	WG1132636
Phenanthrene	ND		0.0000500	1	07/03/2018 00:55	WG1132636
Pyrene	0.0000625		0.0000500	1	07/03/2018 00:55	WG1132636
(S) Nitrobenzene-d5	*88.7*		*31.0-160*		*07/03/2018 00:55*	WG1132636
(S) 2-Fluorobiphenyl	*105*		*48.0-148*		*07/03/2018 00:55*	WG1132636
(S) p-Terphenyl-d14	*84.9*		*37.0-146*		*07/03/2018 00:55*	WG1132636

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/03/2018 13:03	WG1130986

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.0723		0.00100	1	06/29/2018 13:58	WG1131593
Isopropylbenzene	0.00468		0.00100	1	06/29/2018 13:58	WG1131593
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 13:58	WG1131593
Ethylbenzene	0.0309		0.00100	1	06/29/2018 13:58	WG1131593
Methyl tert-butyl ether	ND		0.00100	1	06/29/2018 13:58	WG1131593
Toluene	0.0454		0.00100	1	06/29/2018 13:58	WG1131593
1,2,4-Trimethylbenzene	0.00722		0.00100	1	06/29/2018 13:58	WG1131593
1,3,5-Trimethylbenzene	0.00346		0.00100	1	06/29/2018 13:58	WG1131593
Xylenes, Total	0.0304		0.00300	1	06/29/2018 13:58	WG1131593
(S) Toluene-d8	*94.1*		*80.0-120*		*06/29/2018 13:58*	WG1131593
(S) Dibromofluoromethane	*91.4*		*76.0-123*		*06/29/2018 13:58*	WG1131593
(S) 4-Bromofluorobenzene	*97.4*		*80.0-120*		*06/29/2018 13:58*	WG1131593

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000101	1.01	07/04/2018 00:37	WG1133223

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/03/2018 01:17	WG1132636
Benzo(a)anthracene	ND		0.0000500	1	07/03/2018 01:17	WG1132636
Benzo(a)pyrene	ND		0.0000500	1	07/03/2018 01:17	WG1132636
Benzo(b)fluoranthene	ND		0.0000500	1	07/03/2018 01:17	WG1132636
Benzo(g,h,i)perylene	ND		0.0000500	1	07/03/2018 01:17	WG1132636
Chrysene	ND		0.0000500	1	07/03/2018 01:17	WG1132636
Fluorene	ND		0.0000500	1	07/03/2018 01:17	WG1132636
Naphthalene	0.00648		0.000250	1	07/03/2018 01:17	WG1132636
Phenanthrene	ND		0.0000500	1	07/03/2018 01:17	WG1132636
Pyrene	ND		0.0000500	1	07/03/2018 01:17	WG1132636
(S) Nitrobenzene-d5	*83.1*		*31.0-160*		*07/03/2018 01:17*	WG1132636
(S) 2-Fluorobiphenyl	*108*		*48.0-148*		*07/03/2018 01:17*	WG1132636
(S) p-Terphenyl-d14	*94.1*		*37.0-146*		*07/03/2018 01:17*	WG1132636

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/03/2018 13:08	WG1130986

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.0478		0.00100	1	06/29/2018 14:17	WG1131593
Isopropylbenzene	0.00181		0.00100	1	06/29/2018 14:17	WG1131593
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 14:17	WG1131593
Ethylbenzene	0.00223		0.00100	1	06/29/2018 14:17	WG1131593
Methyl tert-butyl ether	0.00158		0.00100	1	06/29/2018 14:17	WG1131593
Toluene	0.00306		0.00100	1	06/29/2018 14:17	WG1131593
1,2,4-Trimethylbenzene	0.00153		0.00100	1	06/29/2018 14:17	WG1131593
1,3,5-Trimethylbenzene	ND		0.00100	1	06/29/2018 14:17	WG1131593
Xylenes, Total	0.00408		0.00300	1	06/29/2018 14:17	WG1131593
(S) Toluene-d8	*94.7*		*80.0-120*		*06/29/2018 14:17*	WG1131593
(S) Dibromofluoromethane	*91.1*		*76.0-123*		*06/29/2018 14:17*	WG1131593
(S) 4-Bromofluorobenzene	*96.8*		*80.0-120*		*06/29/2018 14:17*	WG1131593

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/04/2018 00:49	WG1133223

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/03/2018 01:39	WG1132636
Benzo(a)anthracene	ND		0.0000500	1	07/03/2018 01:39	WG1132636
Benzo(a)pyrene	ND		0.0000500	1	07/03/2018 01:39	WG1132636
Benzo(b)fluoranthene	ND		0.0000500	1	07/03/2018 01:39	WG1132636
Benzo(g,h,i)perylene	ND		0.0000500	1	07/03/2018 01:39	WG1132636
Chrysene	ND		0.0000500	1	07/03/2018 01:39	WG1132636
Fluorene	ND		0.0000500	1	07/03/2018 01:39	WG1132636
Naphthalene	0.00145		0.000250	1	07/03/2018 01:39	WG1132636
Phenanthrene	ND		0.0000500	1	07/03/2018 01:39	WG1132636
Pyrene	ND		0.0000500	1	07/03/2018 01:39	WG1132636
(S) Nitrobenzene-d5	*91.9*		*31.0-160*		*07/03/2018 01:39*	WG1132636
(S) 2-Fluorobiphenyl	*104*		*48.0-148*		*07/03/2018 01:39*	WG1132636
(S) p-Terphenyl-d14	*96.8*		*37.0-146*		*07/03/2018 01:39*	WG1132636

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/28/2018 23:48	WG1131595
1,2-Dichloroethane	ND		0.00100	1	06/28/2018 23:48	WG1131595
Ethylbenzene	ND		0.00100	1	06/28/2018 23:48	WG1131595
1,2-Dibromoethane	ND		0.00100	1	06/28/2018 23:48	WG1131595
Isopropylbenzene	ND		0.00100	1	06/28/2018 23:48	WG1131595
Toluene	ND		0.00100	1	06/28/2018 23:48	WG1131595
1,2,4-Trimethylbenzene	ND		0.00100	1	06/28/2018 23:48	WG1131595
1,3,5-Trimethylbenzene	ND		0.00100	1	06/28/2018 23:48	WG1131595
Xylenes, Total	ND		0.00300	1	06/28/2018 23:48	WG1131595
Methyl tert-butyl ether	ND		0.00100	1	06/28/2018 23:48	WG1131595
tert-Butyl alcohol	ND		0.00500	1	06/28/2018 23:48	WG1131595
(S) Toluene-d8	*107*		*80.0-120*		*06/28/2018 23:48*	WG1131595
(S) Dibromofluoromethane	*94.7*		*76.0-123*		*06/28/2018 23:48*	WG1131595
(S) 4-Bromofluorobenzene	*88.8*		*80.0-120*		*06/28/2018 23:48*	WG1131595

Method Blank (MB)

(MB) R3322819-1 07/03/18 11:40

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Lead,Dissolved	U		0.000240	0.00200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3322819-2 07/03/18 11:45 • (LCSD) R3322819-3 07/03/18 11:50

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Lead,Dissolved	0.0500	0.0479	0.0473	95.7	94.6	80.0-120			1.18	20

L1005209-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1005209-10 07/03/18 11:54 • (MS) R3322819-5 07/03/18 12:03 • (MSD) R3322819-6 07/03/18 12:08

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Lead,Dissolved	0.0500	ND	0.0478	0.0485	94.4	95.8	1	75.0-125			1.42	20

Method Blank (MB)

(MB) R3322583-3 06/29/18 05:25

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*106*			*80.0-120*
(S) Dibromofluoromethane	*94.4*			*76.0-123*
(S) a,a,a-Trifluorotoluene	*95.4*			*80.0-120*
(S) 4-Bromofluorobenzene	*109*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3322583-1 06/29/18 04:29 • (LCSD) R3322583-2 06/29/18 04:47

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,2-Dichloroethane	0.0250	0.0226	0.0223	90.6	89.2	67.0-126			1.51	20
Ethylbenzene	0.0250	0.0272	0.0272	109	109	77.0-120			0.0468	20
Isopropylbenzene	0.0250	0.0282	0.0279	113	111	75.0-120			1.27	20
Methyl tert-butyl ether	0.0250	0.0223	0.0224	89.3	89.5	64.0-123			0.186	20
Toluene	0.0250	0.0255	0.0255	102	102	77.0-120			0.117	20
1,2,4-Trimethylbenzene	0.0250	0.0273	0.0273	109	109	75.0-120			0.112	20
1,3,5-Trimethylbenzene	0.0250	0.0276	0.0276	111	110	75.0-120			0.0463	20
Xylenes, Total	0.0750	0.0807	0.0790	108	105	77.0-120			2.13	20
(S) Toluene-d8				*106*	*105*	*80.0-120*				
(S) Dibromofluoromethane				*94.3*	*91.8*	*76.0-123*				
(S) a,a,a-Trifluorotoluene				*97.3*	*98.0*	*80.0-120*				
(S) 4-Bromofluorobenzene				*106*	*107*	*80.0-120*				

Method Blank (MB)

(MB) R3322832-3 06/29/18 07:49

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*98.6*			*80.0-120*
(S) Dibromofluoromethane	*94.9*			*76.0-123*
(S) 4-Bromofluorobenzene	*98.1*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3322832-1 06/29/18 06:51 • (LCSD) R3322832-2 06/29/18 07:10

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0279	0.0277	112	111	69.0-123			0.970	20
1,2-Dichloroethane	0.0250	0.0256	0.0256	102	103	67.0-126			0.167	20
Ethylbenzene	0.0250	0.0259	0.0259	103	104	77.0-120			0.135	20
Isopropylbenzene	0.0250	0.0268	0.0266	107	107	75.0-120			0.447	20
Methyl tert-butyl ether	0.0250	0.0256	0.0254	102	102	64.0-123			0.591	20
Toluene	0.0250	0.0262	0.0265	105	106	77.0-120			0.968	20
1,2,4-Trimethylbenzene	0.0250	0.0265	0.0262	106	105	75.0-120			1.14	20
1,3,5-Trimethylbenzene	0.0250	0.0258	0.0254	103	102	75.0-120			1.45	20
Xylenes, Total	0.0750	0.0783	0.0786	104	105	77.0-120			0.382	20
(S) Toluene-d8				*96.3*	*97.9*	*80.0-120*				
(S) Dibromofluoromethane				*92.3*	*92.7*	*76.0-123*				
(S) 4-Bromofluorobenzene				*96.9*	*99.9*	*80.0-120*				

Method Blank (MB)

(MB) R3322566-5 06/28/18 22:45

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dibromoethane	U		0.000381	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
tert-Butyl alcohol	U		0.00240	0.00500
(S) Toluene-d8	*109*			*80.0-120*
(S) Dibromofluoromethane	*95.4*			*76.0-123*
(S) 4-Bromofluorobenzene	*94.0*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3322566-1 06/28/18 21:01 • (LCSD) R3322566-2 06/28/18 21:22

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0253	0.0251	101	100	69.0-123			0.817	20
1,2-Dibromoethane	0.0250	0.0244	0.0260	97.5	104	77.0-123			6.39	20
1,2-Dichloroethane	0.0250	0.0270	0.0262	108	105	67.0-126			2.93	20
Ethylbenzene	0.0250	0.0257	0.0276	103	110	77.0-120			7.04	20
Isopropylbenzene	0.0250	0.0261	0.0264	105	106	75.0-120			1.07	20
Methyl tert-butyl ether	0.0250	0.0245	0.0243	98.1	97.4	64.0-123			0.747	20
Toluene	0.0250	0.0260	0.0276	104	110	77.0-120			5.90	20
1,2,4-Trimethylbenzene	0.0250	0.0259	0.0265	104	106	75.0-120			2.22	20
1,3,5-Trimethylbenzene	0.0250	0.0253	0.0261	101	105	75.0-120			3.11	20
Xylenes, Total	0.0750	0.0768	0.0822	102	110	77.0-120			6.79	20
(S) Toluene-d8				*103*	*109*	*80.0-120*				
(S) Dibromofluoromethane				*94.1*	*92.8*	*76.0-123*				
(S) 4-Bromofluorobenzene				*92.5*	*94.3*	*80.0-120*				

Laboratory Control Sample (LCS)

(LCS) R3322566-4 06/28/18 22:04

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
tert-Butyl alcohol	0.0500	0.0744	149	50.0-150	
(S) Toluene-d8			*107*	*80.0-120*	
(S) Dibromofluoromethane			*93.9*	*76.0-123*	
(S) 4-Bromofluorobenzene			*94.1*	*80.0-120*	

Method Blank (MB)

(MB) R3323000-3 07/03/18 22:50

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
(S) Toluene-d8	*107*			*80.0-120*
(S) Dibromofluoromethane	*98.7*			*76.0-123*
(S) a,a,a-Trifluorotoluene	*104*			*80.0-120*
(S) 4-Bromofluorobenzene	*95.3*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323000-1 07/03/18 21:10 • (LCSD) R3323000-2 07/03/18 21:30

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0200	0.0216	80.2	86.2	69.0-123			7.25	20
(S) Toluene-d8				*108*	*105*	*80.0-120*				
(S) Dibromofluoromethane				*84.5*	*88.1*	*76.0-123*				
(S) a,a,a-Trifluorotoluene				*104*	*101*	*80.0-120*				
(S) 4-Bromofluorobenzene				*89.0*	*99.7*	*80.0-120*				

Method Blank (MB)

(MB) R3323029-1 07/03/18 19:56

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1005134-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1005134-01 07/03/18 20:45 • (DUP) R3323029-3 07/03/18 20:33

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	U	0.000	.998			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323029-4 07/03/18 22:47 • (LCSD) R3323029-5 07/04/18 01:14

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000227	0.000218	90.8	87.2	60.0-140			4.04	20

L1005134-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1005134-02 07/03/18 20:21 • (MS) R3323029-2 07/03/18 20:08

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.000100	U	0.0000920	92.0	1	72.0-146	

Method Blank (MB)

(MB) R3327677-1 07/20/18 23:57

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1009704-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1009704-01 07/21/18 00:47 • (DUP) R3327677-3 07/21/18 00:34

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	U	0.000	1			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3327677-4 07/21/18 02:50 • (LCSD) R3327677-5 07/21/18 05:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000239	0.000229	95.6	91.6	60.0-140			4.27	20

L1009704-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1009704-03 07/21/18 00:22 • (MS) R3327677-2 07/21/18 00:10

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.0000998	U	0.0000955	95.7	1	72.0-146	

Method Blank (MB)

(MB) R3322851-3 07/02/18 21:39

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Chrysene	U		0.0000108	0.0000500
Fluorene	U		0.00000850	0.0000500
Naphthalene	U		0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
(S) Nitrobenzene-d5	*90.0*			*31.0-160*
(S) 2-Fluorobiphenyl	*107*			*48.0-148*
(S) p-Terphenyl-d14	*98.7*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3322851-1 07/02/18 20:55 • (LCSD) R3322851-2 07/02/18 21:17

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00239	0.00231	120	116	64.0-142			3.34	20
Benzo(a)anthracene	0.00200	0.00192	0.00192	96.2	96.1	59.0-134			0.0981	20
Benzo(a)pyrene	0.00200	0.00184	0.00202	92.2	101	61.0-145			9.10	20
Benzo(b)fluoranthene	0.00200	0.00171	0.00198	85.5	98.9	57.0-136			14.5	20
Benzo(g,h,i)perylene	0.00200	0.00178	0.00215	89.1	108	54.0-140			18.8	20
Chrysene	0.00200	0.00210	0.00216	105	108	63.0-140			2.80	20
Fluorene	0.00200	0.00198	0.00189	99.2	94.7	64.0-129			4.71	20
Naphthalene	0.00200	0.00192	0.00181	96.0	90.7	68.0-129			5.58	20
Phenanthrene	0.00200	0.00201	0.00195	101	97.6	62.0-132			3.14	20
Pyrene	0.00200	0.00194	0.00189	96.9	94.5	58.0-156			2.53	20
(S) Nitrobenzene-d5				*90.8*	*89.5*	*31.0-160*				
(S) 2-Fluorobiphenyl				*106*	*102*	*48.0-148*				
(S) p-Terphenyl-d14				*92.5*	*99.9*	*37.0-146*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
T8	Sample(s) received past/too close to holding time expiration.

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* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

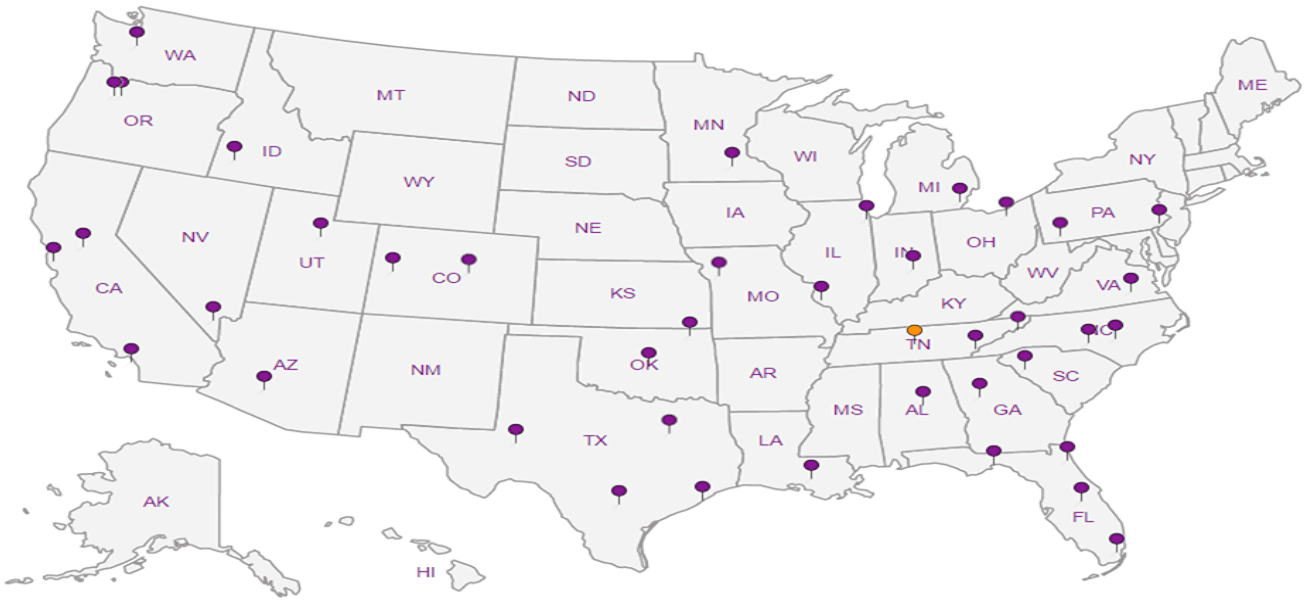
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Stantec - S/E

1060 Andrew Drive, Suite 140
West Chester, PA 19380

Billing Information:
Accounts Payable
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Pres Chk

Report to: **Jennifer Menges**

Email To: **Jennifer.Menges@stantec.com**

Project Description: Evergreen - Phil GWS

City/State Collected:

Phone: ~~267-240-3415~~
Fax: 610-425-8311

Client Project # 213402429

Lab Project # **SUNSTANTEC-PHL**

Collected by (print): Karl Myers / Dane Hopkins

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1005209
D146

Acctnum: **SUNSTANTEC**
Template: **T137388**
Prelogin: **P659137**
TSR: **134 - Mark Beasley**
PB: 6-18-18

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Evergreen Short List - Various	Dissolved Pb (Lab) - 250ml plastic NP (* lab filter)	VOCs/TBA - 3 - 40ml vials w/ HCL	V8260BTEX only - 3 - 40ml vials w/ HCL	MTBE/TBA only - 3 - 40ml vials w/ HCL	Remarks	Sample # (lab only)
Arco.3_20180626	G	GW	30'	6.26.18	920	9	X	X					-01
S_398_20180626	G	GW	51'	6.26.18	1110	3			X				-02
S_230_20180626	G	GW	17'	6.26.18	1345	3				X			-03
S_50_20180626	G	GW	22'	6.26.18	1420	9	X	X					-04
S-25_20180626	G	GW	13'		0915	9	X	X					-05
C-62_20180626	G	GW	8'		1030	9	X	X					-06
C-104_20180626	G	GW	16'		1130	9	X	X					-07
C-127_20180626	G	GW	12'		1220	9	X	X					-08
C-129_20180626	G	GW	7'		1330	9	X	X					-09
C-25DUP_20180626	G	GW	13'	↓	0915	9	X	X					-10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Various = 3 - 40ml vials w/ HCL, 3 - 40ml vials w/ NaThio, 2 - 40ml vials NP, and 1 - 250ml plastic NP
* EQuIS EDD format
* refer to attached Short list
* standard TAT

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ~~__~~ FedEx __ Courier __ SWA

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: (Yes) / No HCL / MeoH TBR
	6.26.18	1415	ESCPA lockout	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:
ESCPA lockout	6/27/18	10:30		0.6 105
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time: Hold: Condition: NCF / OK
				6/28/18 ~~0845~~ 0751 VC

If preservation required by Login: Date/Time

Stantec - S/E

1060 Andrew Drive, Suite 140
West Chester, PA 19380

Billing Information:
Accounts Payable
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC LAB SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

Report to: **Jennifer Menges**

Email To: **Jennifer.Menges@stantec.com**

Project Description: Evergreen: PHL GWS

City/State Collected:

Phone: ~~267-240-3415~~
Fax: 610-425-8311

Client Project # 21302429

Lab Project # **SUNSTANTEC-PHL**

Collected by (print): IAN ANDREE

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

L # U005209

Table #

Acctnum: **SUNSTANTEC**
Template: **T137388**
Prelogin: **P659137**
TSR: **134 - Mark Beasley**
PB: 6-18-18

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Evergreen Short List - Various	Dissolved Pb (Lab) - 250ml plastic NP * Less filtered	VOCs/TBA - 3 - 40ml vials w/ HCL	V8260BTEX only - 3 - 40ml vials w/ HCL	MTBE/TBA only - 3 - 40ml vials w/ HCL	Remarks	Sample # (lab only)
S-380_20180626	G	GW	22.5	6/26/18	1031	9	X	X					-11
S-38_20180626	G	GW	18	6/26/18	1233	9	X	X					-12
RW-715_20180626	G	GW	22.5	6/26/18	1315	9	X	X					-13
TB_20180626	—	GW	—	↓	—	1			X				-14
		GW											
		GW											
		GW											
		GW											
		GW											
		GW											

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Various = 3 - 40ml vials w/ HCL, 3 - 40ml vials w/ NaThio, 2 - 40ml vials NP, and 1- 250ml plastic NP

* EQuIS EDD format
* refer to attached Short List
* Standard TAT

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier X SWA

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ✓NP __Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
[signature]	6/26/18	1415	ESCPA lockout	1	
Relinquished by : (Signature) ESCPA lockout	Date: 6/27/18	Time: 10:30	Received by: (Signature) [signature]	Temp: 0.6 °C Bottles Received: 105	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) [signature]	Date: 6/28/18 Time: 0957 KC ~~0845~~	Hold: Condition: NCF / OK

4005209

Table 1
Evergreen Petroleum Short List of Constituents of Concern

VOCs by EPA Method 8260	CAS No.
Benzene	71-43-2
Cumene	98-82-8
Dichloroethane, 1,2-	107-06-2
Ethylbenzene	100-41-4
Ethylene Dibromide*	106-93-4
Methyl tert butyl ether	1634-04-4
Toluene	108-88-3
Trimethylbenzene, 1,2,4-	95-63-6
Trimethylbenzene, 1,3,5-	108-67-8
Xylenes	1330-20-7

SVOCs by EPA Method 8270	CAS No.
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Chrysene	218-01-9
Fluorene	86-73-7
Naphthalene**	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Metals by Method 6010/6020	CAS No.
Lead***	7439-92-1

*Ethylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

**Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

***Metals analysis should be total in soil and dissolved in groundwater.

This list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline and No. 1, 2, 4, 5, 6 Fuel Oils).

Stantec

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

July 22, 2018

Stantec - S/E

Sample Delivery Group:	L1005894
Samples Received:	06/29/2018
Project Number:	213402429
Description:	PES

Report To: Jennifer Menges
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



TABLE OF CONTENTS

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 3

Cn: Case Narrative 4

Sr: Sample Results 5

- S-369_20180627 L1005894-01 5
- S-223_20180627 L1005894-02 6
- S-223_DUP_20180627 L1005894-03 7
- S-411_20180627 L1005894-04 8

Qc: Quality Control Summary 9

- Metals (ICPMS) by Method 6020 9
- Volatile Organic Compounds (GC/MS) by Method 8260B 10
- EDB / DBCP by Method 8011 13
- Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM 14

Gl: Glossary of Terms 15

Al: Accreditations & Locations 16

Sc: Sample Chain of Custody 17

S-369_20180627_L1005894-01_GW

Collected by: Ian Andree | Collected date/time: 06/27/18 11:41 | Received date/time: 06/29/18 10:42

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1132466	1	07/07/18 14:31	07/08/18 20:01	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133306	1	07/04/18 22:35	07/04/18 22:35	JHH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133946	20	07/05/18 12:58	07/05/18 12:58	LRL
EDB / DBCP by Method 8011	WG1133539	.998	07/05/18 09:11	07/07/18 11:03	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1133003	1	07/03/18 14:53	07/04/18 03:35	KM

S-223_20180627_L1005894-02_GW

Collected by: Ian Andree | Collected date/time: 06/27/18 12:35 | Received date/time: 06/29/18 10:42

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1132466	1	07/07/18 14:31	07/08/18 20:05	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133306	1	07/04/18 22:56	07/04/18 22:56	JHH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133946	25	07/05/18 13:18	07/05/18 13:18	LRL
EDB / DBCP by Method 8011	WG1133539	.995	07/05/18 09:11	07/07/18 11:15	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1133003	1	07/03/18 14:53	07/04/18 03:58	KM

S-223_DUP_20180627_L1005894-03_GW

Collected by: Ian Andree | Collected date/time: 06/27/18 00:00 | Received date/time: 06/29/18 10:42

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1132466	1	07/07/18 14:31	07/08/18 20:09	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133306	1	07/04/18 23:17	07/04/18 23:17	JHH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133946	25	07/05/18 13:37	07/05/18 13:37	LRL
EDB / DBCP by Method 8011	WG1133539	.998	07/05/18 09:11	07/07/18 11:28	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1133003	1	07/03/18 14:53	07/04/18 04:21	KM

S-411_20180627_L1005894-04_GW

Collected by: Ian Andree | Collected date/time: 06/27/18 14:53 | Received date/time: 06/29/18 10:42

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1132566	1	07/01/18 13:45	07/01/18 13:45	JAH

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Mark W. Beasley
Project Manager



Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/08/2018 20:01	WG1132466

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	1.46		0.0200	20	07/05/2018 12:58	WG1133946
Isopropylbenzene	0.0728		0.00100	1	07/04/2018 22:35	WG1133306
1,2-Dichloroethane	ND		0.00100	1	07/04/2018 22:35	WG1133306
Ethylbenzene	0.0133		0.00100	1	07/04/2018 22:35	WG1133306
Methyl tert-butyl ether	0.0623		0.00100	1	07/04/2018 22:35	WG1133306
Toluene	0.0545		0.00100	1	07/04/2018 22:35	WG1133306
1,2,4-Trimethylbenzene	ND		0.00100	1	07/04/2018 22:35	WG1133306
1,3,5-Trimethylbenzene	0.00373		0.00100	1	07/04/2018 22:35	WG1133306
Xylenes, Total	0.0332		0.00300	1	07/04/2018 22:35	WG1133306
(S) Toluene-d8	*99.9*		*80.0-120*		*07/04/2018 22:35*	WG1133306
(S) Toluene-d8	*102*		*80.0-120*		*07/05/2018 12:58*	WG1133946
(S) Dibromofluoromethane	*88.4*		*76.0-123*		*07/04/2018 22:35*	WG1133306
(S) Dibromofluoromethane	*90.4*		*76.0-123*		*07/05/2018 12:58*	WG1133946
(S) 4-Bromofluorobenzene	*100*		*80.0-120*		*07/04/2018 22:35*	WG1133306
(S) 4-Bromofluorobenzene	*99.1*		*80.0-120*		*07/05/2018 12:58*	WG1133946

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.998	07/07/2018 11:03	WG1133539

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.000236		0.0000500	1	07/04/2018 03:35	WG1133003
Benzo(a)anthracene	ND		0.0000500	1	07/04/2018 03:35	WG1133003
Benzo(a)pyrene	ND		0.0000500	1	07/04/2018 03:35	WG1133003
Benzo(b)fluoranthene	ND		0.0000500	1	07/04/2018 03:35	WG1133003
Benzo(g,h,i)perylene	ND		0.0000500	1	07/04/2018 03:35	WG1133003
Chrysene	ND		0.0000500	1	07/04/2018 03:35	WG1133003
Fluorene	0.00208		0.0000500	1	07/04/2018 03:35	WG1133003
Naphthalene	0.00313		0.000250	1	07/04/2018 03:35	WG1133003
Phenanthrene	0.00126		0.0000500	1	07/04/2018 03:35	WG1133003
Pyrene	0.0000772		0.0000500	1	07/04/2018 03:35	WG1133003
(S) Nitrobenzene-d5	*72.3*		*31.0-160*		*07/04/2018 03:35*	WG1133003
(S) 2-Fluorobiphenyl	*99.4*		*48.0-148*		*07/04/2018 03:35*	WG1133003
(S) p-Terphenyl-d14	*113*		*37.0-146*		*07/04/2018 03:35*	WG1133003

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/08/2018 20:05	WG1132466

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	1.83		0.0250	25	07/05/2018 13:18	WG1133946
Isopropylbenzene	0.0255		0.00100	1	07/04/2018 22:56	WG1133306
1,2-Dichloroethane	ND		0.00100	1	07/04/2018 22:56	WG1133306
Ethylbenzene	0.739		0.0250	25	07/05/2018 13:18	WG1133946
Methyl tert-butyl ether	ND		0.00100	1	07/04/2018 22:56	WG1133306
Toluene	0.136		0.00100	1	07/04/2018 22:56	WG1133306
1,2,4-Trimethylbenzene	0.822		0.0250	25	07/05/2018 13:18	WG1133946
1,3,5-Trimethylbenzene	0.241		0.0250	25	07/05/2018 13:18	WG1133946
Xylenes, Total	1.74		0.0750	25	07/05/2018 13:18	WG1133946
(S) Toluene-d8	*92.2*		*80.0-120*		*07/04/2018 22:56*	WG1133306
(S) Toluene-d8	*100*		*80.0-120*		*07/05/2018 13:18*	WG1133946
(S) Dibromofluoromethane	*92.2*		*76.0-123*		*07/04/2018 22:56*	WG1133306
(S) Dibromofluoromethane	*91.5*		*76.0-123*		*07/05/2018 13:18*	WG1133946
(S) 4-Bromofluorobenzene	*108*		*80.0-120*		*07/04/2018 22:56*	WG1133306
(S) 4-Bromofluorobenzene	*94.1*		*80.0-120*		*07/05/2018 13:18*	WG1133946

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.995	07/07/2018 11:15	WG1133539

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.0000826		0.0000500	1	07/04/2018 03:58	WG1133003
Benzo(a)anthracene	ND		0.0000500	1	07/04/2018 03:58	WG1133003
Benzo(a)pyrene	ND		0.0000500	1	07/04/2018 03:58	WG1133003
Benzo(b)fluoranthene	ND		0.0000500	1	07/04/2018 03:58	WG1133003
Benzo(g,h,i)perylene	ND		0.0000500	1	07/04/2018 03:58	WG1133003
Chrysene	ND		0.0000500	1	07/04/2018 03:58	WG1133003
Fluorene	0.000701		0.0000500	1	07/04/2018 03:58	WG1133003
Naphthalene	0.0566		0.000250	1	07/04/2018 03:58	WG1133003
Phenanthrene	ND		0.0000500	1	07/04/2018 03:58	WG1133003
Pyrene	ND		0.0000500	1	07/04/2018 03:58	WG1133003
(S) Nitrobenzene-d5	*79.9*		*31.0-160*		*07/04/2018 03:58*	WG1133003
(S) 2-Fluorobiphenyl	*95.9*		*48.0-148*		*07/04/2018 03:58*	WG1133003
(S) p-Terphenyl-d14	*102*		*37.0-146*		*07/04/2018 03:58*	WG1133003

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/08/2018 20:09	WG1132466

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	1.85		0.0250	25	07/05/2018 13:37	WG1133946
Isopropylbenzene	0.0271		0.00100	1	07/04/2018 23:17	WG1133306
1,2-Dichloroethane	ND		0.00100	1	07/04/2018 23:17	WG1133306
Ethylbenzene	0.764		0.0250	25	07/05/2018 13:37	WG1133946
Methyl tert-butyl ether	ND		0.00100	1	07/04/2018 23:17	WG1133306
Toluene	0.145		0.00100	1	07/04/2018 23:17	WG1133306
1,2,4-Trimethylbenzene	0.807		0.0250	25	07/05/2018 13:37	WG1133946
1,3,5-Trimethylbenzene	0.245		0.0250	25	07/05/2018 13:37	WG1133946
Xylenes, Total	1.79		0.0750	25	07/05/2018 13:37	WG1133946
(S) Toluene-d8	*92.5*		*80.0-120*		*07/04/2018 23:17*	WG1133306
(S) Toluene-d8	*104*		*80.0-120*		*07/05/2018 13:37*	WG1133946
(S) Dibromofluoromethane	*92.2*		*76.0-123*		*07/04/2018 23:17*	WG1133306
(S) Dibromofluoromethane	*90.6*		*76.0-123*		*07/05/2018 13:37*	WG1133946
(S) 4-Bromofluorobenzene	*110*		*80.0-120*		*07/04/2018 23:17*	WG1133306
(S) 4-Bromofluorobenzene	*96.2*		*80.0-120*		*07/05/2018 13:37*	WG1133946

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.998	07/07/2018 11:28	WG1133539

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.0000799		0.0000500	1	07/04/2018 04:21	WG1133003
Benzo(a)anthracene	ND		0.0000500	1	07/04/2018 04:21	WG1133003
Benzo(a)pyrene	ND		0.0000500	1	07/04/2018 04:21	WG1133003
Benzo(b)fluoranthene	ND		0.0000500	1	07/04/2018 04:21	WG1133003
Benzo(g,h,i)perylene	ND		0.0000500	1	07/04/2018 04:21	WG1133003
Chrysene	ND		0.0000500	1	07/04/2018 04:21	WG1133003
Fluorene	0.000707		0.0000500	1	07/04/2018 04:21	WG1133003
Naphthalene	0.0781		0.000250	1	07/04/2018 04:21	WG1133003
Phenanthrene	0.0000986		0.0000500	1	07/04/2018 04:21	WG1133003
Pyrene	ND		0.0000500	1	07/04/2018 04:21	WG1133003
(S) Nitrobenzene-d5	*76.6*		*31.0-160*		*07/04/2018 04:21*	WG1133003
(S) 2-Fluorobiphenyl	*96.3*		*48.0-148*		*07/04/2018 04:21*	WG1133003
(S) p-Terphenyl-d14	*102*		*37.0-146*		*07/04/2018 04:21*	WG1133003

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.00314		0.00100	1	07/01/2018 13:45	WG1132566
Toluene	ND		0.00100	1	07/01/2018 13:45	WG1132566
Ethylbenzene	ND		0.00100	1	07/01/2018 13:45	WG1132566
Total Xylenes	ND		0.00300	1	07/01/2018 13:45	WG1132566
(S) Toluene-d8	*107*		*80.0-120*		*07/01/2018 13:45*	WG1132566
(S) Dibromofluoromethane	*101*		*76.0-123*		*07/01/2018 13:45*	WG1132566
(S) a,a,a-Trifluorotoluene	*106*		*80.0-120*		*07/01/2018 13:45*	WG1132566
(S) 4-Bromofluorobenzene	*94.0*		*80.0-120*		*07/01/2018 13:45*	WG1132566

Method Blank (MB)

(MB) R3323924-1 07/08/18 18:42

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Lead,Dissolved	U		0.000240	0.00200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323924-2 07/08/18 18:47 • (LCSD) R3323924-3 07/08/18 18:51

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
Lead,Dissolved	0.0500	0.0470	0.0470	94.0	94.0	80.0-120			0.0316	20

L1006072-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1006072-05 07/08/18 18:55 • (MS) R3323924-5 07/08/18 19:04 • (MSD) R3323924-6 07/08/18 19:08

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Lead,Dissolved	0.0500	0.000872	0.0469	0.0477	92.1	93.6	1	75.0-125			1.61	20

Method Blank (MB)

(MB) R3322432-3 07/01/18 09:32

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
Toluene	U		0.000412	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*108*			*80.0-120*
(S) Dibromofluoromethane	*103*			*76.0-123*
(S) a,a,a-Trifluorotoluene	*105*			*80.0-120*
(S) 4-Bromofluorobenzene	*98.1*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3322432-1 07/01/18 08:34 • (LCSD) R3322432-2 07/01/18 08:53

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0244	0.0237	97.6	94.6	69.0-123			3.14	20
Ethylbenzene	0.0250	0.0260	0.0260	104	104	77.0-120			0.0301	20
Toluene	0.0250	0.0251	0.0249	100	99.7	77.0-120			0.631	20
Xylenes, Total	0.0750	0.0804	0.0805	107	107	77.0-120			0.124	20
(S) Toluene-d8				*105*	*107*	*80.0-120*				
(S) Dibromofluoromethane				*98.5*	*100*	*76.0-123*				
(S) a,a,a-Trifluorotoluene				*106*	*107*	*80.0-120*				
(S) 4-Bromofluorobenzene				*96.7*	*98.0*	*80.0-120*				

Method Blank (MB)

(MB) R3323139-4 07/04/18 14:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*108*			*80.0-120*
(S) Dibromofluoromethane	*94.6*			*76.0-123*
(S) 4-Bromofluorobenzene	*92.9*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323139-1 07/04/18 13:06 • (LCSD) R3323139-2 07/04/18 13:27

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,2-Dichloroethane	0.0250	0.0262	0.0256	105	102	67.0-126			2.53	20
Ethylbenzene	0.0250	0.0255	0.0245	102	98.0	77.0-120			4.10	20
Isopropylbenzene	0.0250	0.0251	0.0244	100	97.5	75.0-120			2.82	20
Methyl tert-butyl ether	0.0250	0.0240	0.0236	96.2	94.5	64.0-123			1.76	20
Toluene	0.0250	0.0253	0.0246	101	98.4	77.0-120			2.79	20
1,2,4-Trimethylbenzene	0.0250	0.0260	0.0253	104	101	75.0-120			2.84	20
1,3,5-Trimethylbenzene	0.0250	0.0247	0.0242	98.7	97.0	75.0-120			1.78	20
Xylenes, Total	0.0750	0.0759	0.0740	101	98.7	77.0-120			2.54	20
(S) Toluene-d8				*105*	*105*	*80.0-120*				
(S) Dibromofluoromethane				*93.8*	*95.0*	*76.0-123*				
(S) 4-Bromofluorobenzene				*94.0*	*95.5*	*80.0-120*				

Method Blank (MB)

(MB) R3323735-4 07/05/18 10:43

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*103*			*80.0-120*
(S) Dibromofluoromethane	*91.1*			*76.0-123*
(S) 4-Bromofluorobenzene	*95.4*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323735-1 07/05/18 09:26 • (LCSD) R3323735-2 07/05/18 09:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0266	0.0263	106	105	69.0-123			1.19	20
Ethylbenzene	0.0250	0.0267	0.0271	107	108	77.0-120			1.37	20
1,2,4-Trimethylbenzene	0.0250	0.0277	0.0268	111	107	75.0-120			3.21	20
1,3,5-Trimethylbenzene	0.0250	0.0265	0.0251	106	101	75.0-120			5.24	20
Xylenes, Total	0.0750	0.0828	0.0810	110	108	77.0-120			2.20	20
(S) Toluene-d8				*101*	*99.9*	*80.0-120*				
(S) Dibromofluoromethane				*89.3*	*89.5*	*76.0-123*				
(S) 4-Bromofluorobenzene				*96.2*	*94.9*	*80.0-120*				

Method Blank (MB)

(MB) R3324214-1 07/07/18 07:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1005749-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1005749-01 07/07/18 08:47 • (DUP) R3324214-3 07/07/18 08:35

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	ND	0.000	.995			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324214-4 07/07/18 10:51 • (LCSD) R3324214-6 07/07/18 13:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000198	0.000208	79.2	83.2	60.0-140			4.93	20

Laboratory Control Sample (LCS)

(LCS) R3324214-5 07/07/18 13:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylene Dibromide	0.000250	0.000208	83.2	60.0-140	

L1005749-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1005749-02 07/07/18 08:22 • (MS) R3324214-2 07/07/18 08:10

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.0000998	ND	0.0000967	96.9	.998	72.0-146	

Method Blank (MB)

(MB) R3323014-3 07/03/18 22:34

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Chrysene	U		0.0000108	0.0000500
Fluorene	U		0.00000850	0.0000500
Naphthalene	0.0000222	J	0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
(S) Nitrobenzene-d5	*78.1*			*31.0-160*
(S) 2-Fluorobiphenyl	*119*			*48.0-148*
(S) p-Terphenyl-d14	*111*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323014-1 07/03/18 21:48 • (LCSD) R3323014-2 07/03/18 22:11

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00192	0.00222	95.8	111	64.0-142			14.6	20
Benzo(a)anthracene	0.00200	0.00208	0.00233	104	117	59.0-134			11.6	20
Benzo(a)pyrene	0.00200	0.00204	0.00230	102	115	61.0-145			11.7	20
Benzo(b)fluoranthene	0.00200	0.00206	0.00222	103	111	57.0-136			7.71	20
Benzo(g,h,i)perylene	0.00200	0.00218	0.00246	109	123	54.0-140			12.1	20
Chrysene	0.00200	0.00195	0.00224	97.6	112	63.0-140			13.6	20
Fluorene	0.00200	0.00203	0.00225	101	113	64.0-129			10.5	20
Naphthalene	0.00200	0.00144	0.00164	72.2	82.1	68.0-129			12.8	20
Phenanthrene	0.00200	0.00183	0.00215	91.5	107	62.0-132			16.0	20
Pyrene	0.00200	0.00190	0.00212	94.8	106	58.0-156			11.1	20
(S) Nitrobenzene-d5				*70.3*	*77.2*	*31.0-160*				
(S) 2-Fluorobiphenyl				*108*	*117*	*48.0-148*				
(S) p-Terphenyl-d14				*102*	*113*	*37.0-146*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

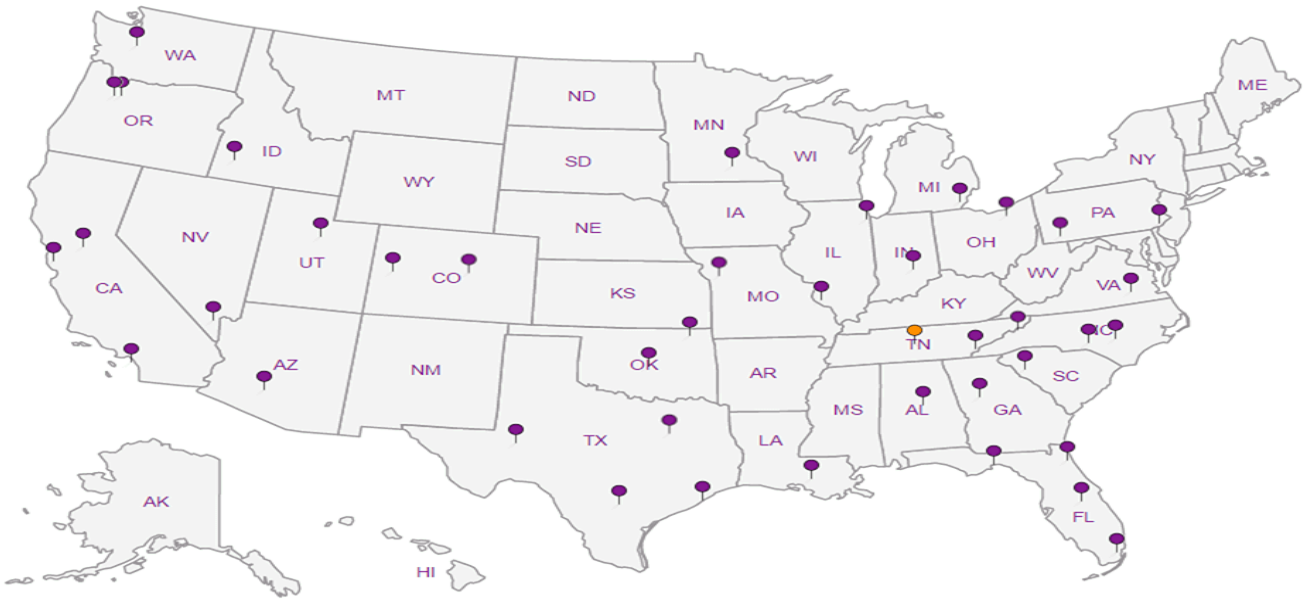
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Stantec - S/E

1060 Andrew Drive, Suite 140
West Chester, PA 19380

Billing Information:
Accounts Payable
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Pres Chk

Report to: **Jennifer Menges**

Email To: **Jennifer.Menges@stantec.com**

Project Description: PES

City/State Collected: PHILA., PA

Phone: 267-240-3415
Fax: 610-428-8311

Client Project # 213402429

Lab Project # SUNSTANTEC-PHL

Collected by (print): IAN ANDREE

Site/Facility ID #

P.O. #

Collected by (signature):

Quote #

Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed: STANDARD

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Evergreen Short List - Various	Dissolved Pb (Lab) - 250ml plastic NP (LAB FILTERED)	VOCs/TBA - 3 - 40ml vials w/ HCL	V8260BTEX only - 3 - 40ml vials w/ HCL	MTBE/TBA only - 3 - 40ml vials w/ HCL							
S-369_20180627	G	GW	30'	6/27/18	1141	9	X	X										-01
S-223_20180627	G	GW	22.5'	6/27/18	1235	9	X	X										-02
S-223_DUP_20180627	G	GW	22.5'	6/27/18		9	X	X										-03
S-411_20180627	G	GW	28'	6/27/18	1453	3				X								-04
		GW																
		GW																
		GW																
		GW																
		GW																
		GW																

S-223

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:
Various = 3 - 40ml vials w/ HCL, 3 - 40ml vials w/ NaThio, 2 - 40ml vials NP, and 1 - 250ml plastic NP

★ FOR ANALYTES REFER TO SHORT LIST
★ EQUIS EDD FORMAT
★ STANDARD DRAFT

pH ___ Temp ___
Flow ___ Other ___

Samples returned via:
__ UPS __ FedEx __ Courier __ ___

Tracking #

	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	6/27/18	1620	ESCPA lockout
Relinquished by: (Signature) ESCPA lockout	6/28/18	10:15	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) Date: 6/29/18 Time: 1042

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 0.3 °C Bottles Received: 30

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Chain of Custody Page ___ of ___

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1005894
A080
Tab

Acctnum: SUNSTANTEC
Template: T137388
Prelogin: P659137
TSR: 134 - Mark Beasley
PB: 6-18-18

Shipped Via:

Remarks | Sample # (lab only)

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

July 27, 2018

Stantec - S/E

Sample Delivery Group:	L1006118
Samples Received:	06/30/2018
Project Number:	213402429
Description:	Evergreen - PHL GWS

Report To: Jennifer Menges
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 3

Cn: Case Narrative 6

Sr: Sample Results 7

TB_20180628 L1006118-01 7

S-116SRTF_20180628 L1006118-02 8

S-113SRTF_20180628 L1006118-03 9

S-115SRTF_20180628 L1006118-04 10

S-114SRTF_20180628 L1006118-05 11

S-39D-HS_20180628 L1006118-06 12

S-39D_20180628 L1006118-07 13

S-218D-HS_20180628 L1006118-08 14

S-218D_20180628 L1006118-09 15

S-154-HS_20180628 L1006118-10 16

S-154_20180628 L1006118-11 17

S-271-HS_20180628 L1006118-12 18

S-271_20180628 L1006118-13 19

S-396_20180628 L1006118-14 20

S-396_HS_20180628 L1006118-15 21

S-418-HS_20180628 L1006118-16 22

S-418_20180628 L1006118-17 23

Qc: Quality Control Summary 24

Metals (ICPMS) by Method 6020 24

Volatile Organic Compounds (GC/MS) by Method 8260B 25

EDB / DBCP by Method 8011 34

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM 37

Gl: Glossary of Terms 39

Al: Accreditations & Locations 40

Sc: Sample Chain of Custody 41

TB_20180628 L1006118-01 GW

Collected by: Dane Hopkins | Collected date/time: 06/28/18 00:00 | Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133744	1	07/04/18 02:27	07/04/18 02:27	ACG

S-116SRTF_20180628 L1006118-02 GW

Collected by: Dane Hopkins | Collected date/time: 06/28/18 10:20 | Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1134555	1	07/09/18 14:17	07/10/18 01:14	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133713	10	07/04/18 05:56	07/04/18 05:56	LRL
EDB / DBCP by Method 8011	WG1134323	1	07/06/18 08:55	07/10/18 04:43	HMH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1133547	2	07/05/18 11:39	07/06/18 04:15	KM

S-113SRTF_20180628 L1006118-03 GW

Collected by: Dane Hopkins | Collected date/time: 06/28/18 11:10 | Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1134555	1	07/09/18 14:17	07/10/18 01:19	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133713	10	07/04/18 06:17	07/04/18 06:17	LRL
EDB / DBCP by Method 8011	WG1134323	1	07/06/18 08:55	07/10/18 03:29	HMH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1133547	2	07/05/18 11:39	07/06/18 04:37	KM

S-115SRTF_20180628 L1006118-04 GW

Collected by: Dane Hopkins | Collected date/time: 06/28/18 12:05 | Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1134555	1	07/09/18 14:17	07/10/18 01:23	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133713	50	07/04/18 06:38	07/04/18 06:38	LRL
EDB / DBCP by Method 8011	WG1134323	1	07/06/18 08:55	07/10/18 04:56	HMH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1133547	2	07/05/18 11:39	07/06/18 04:59	KM

S-114SRTF_20180628 L1006118-05 GW

Collected by: Dane Hopkins | Collected date/time: 06/28/18 13:00 | Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1134555	1	07/09/18 14:17	07/10/18 01:27	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133713	10	07/04/18 07:00	07/04/18 07:00	LRL
EDB / DBCP by Method 8011	WG1134323	1	07/06/18 08:55	07/10/18 05:08	HMH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1133547	2	07/05/18 11:39	07/06/18 05:21	KM

S-39D-HS_20180628 L1006118-06 GW

Collected by: Dane Hopkins | Collected date/time: 06/28/18 08:40 | Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133713	1	07/04/18 07:21	07/04/18 07:21	LRL

S-39D_20180628 L1006118-07 GW

Collected by: Dane Hopkins | Collected date/time: 06/28/18 09:33 | Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133713	1	07/04/18 07:42	07/04/18 07:42	LRL

S-218D-HS_20180628 L1006118-08 GW

Collected by: Dane Hopkins | Collected date/time: 06/28/18 10:15 | Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133713	1	07/04/18 08:03	07/04/18 08:03	LRL

S-218D_20180628 L1006118-09 GW

Collected by: Dane Hopkins | Collected date/time: 06/28/18 11:08 | Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133713	1	07/04/18 08:24	07/04/18 08:24	LRL

S-154-HS_20180628 L1006118-10 GW

Collected by: Dane Hopkins | Collected date/time: 06/28/18 12:50 | Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1134555	1	07/09/18 14:17	07/10/18 01:31	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133656	1	07/04/18 11:20	07/04/18 11:20	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135278	1	07/09/18 13:56	07/09/18 13:56	RAS
EDB / DBCP by Method 8011	WG1134323	1	07/06/18 08:55	07/10/18 05:45	HMH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1133547	1	07/05/18 11:39	07/06/18 05:43	KM

S-154_20180628 L1006118-11 GW

Collected by: Dane Hopkins | Collected date/time: 06/28/18 13:23 | Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1134555	1	07/09/18 14:17	07/10/18 01:35	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135278	1	07/09/18 14:18	07/09/18 14:18	RAS
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135479	1	07/09/18 16:04	07/09/18 16:04	RAS
EDB / DBCP by Method 8011	WG1134323	1	07/06/18 08:55	07/10/18 05:57	HMH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1133547	1	07/05/18 11:39	07/06/18 06:05	KM

S-271-HS_20180628 L1006118-12 GW

Collected by: Dane Hopkins | Collected date/time: 06/28/18 08:30 | Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133713	50	07/04/18 08:45	07/04/18 08:45	LRL
EDB / DBCP by Method 8011	WG1140686	1	07/20/18 08:51	07/21/18 02:13	ADF

S-271_20180628 L1006118-13 GW

Collected by: Dane Hopkins | Collected date/time: 06/28/18 09:40 | Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133713	50	07/04/18 09:06	07/04/18 09:06	LRL
EDB / DBCP by Method 8011	WG1140686	1	07/20/18 08:51	07/21/18 02:26	ADF

S-396_20180628 L1006118-14 GW

Collected by: Dane Hopkins
Collected date/time: 06/28/18 11:10
Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133713	1	07/04/18 09:27	07/04/18 09:27	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135333	2000	07/10/18 03:39	07/10/18 03:39	LRL
EDB / DBCP by Method 8011	WG1143228	.998	07/26/18 06:59	07/27/18 00:19	HMH

S-396_HS_20180628 L1006118-15 GW

Collected by: Dane Hopkins
Collected date/time: 06/28/18 09:50
Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133713	1	07/04/18 09:48	07/04/18 09:48	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135333	2000	07/10/18 03:59	07/10/18 03:59	LRL
EDB / DBCP by Method 8011	WG1143228	1	07/26/18 06:59	07/27/18 00:30	HMH

S-418-HS_20180628 L1006118-16 GW

Collected by: Dane Hopkins
Collected date/time: 06/28/18 12:00
Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133713	50	07/04/18 10:09	07/04/18 10:09	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135123	250	07/09/18 00:45	07/09/18 00:45	DWR
EDB / DBCP by Method 8011	WG1140686	1	07/20/18 08:51	07/21/18 03:27	ADF

S-418_20180628 L1006118-17 GW

Collected by: Dane Hopkins
Collected date/time: 06/28/18 13:35
Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133713	10	07/04/18 10:31	07/04/18 10:31	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135123	100	07/09/18 01:05	07/09/18 01:05	DWR
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135333	500	07/10/18 04:19	07/10/18 04:19	LRL
EDB / DBCP by Method 8011	WG1140686	1	07/20/18 08:51	07/21/18 03:40	ADF

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Mark W. Beasley
Project Manager

Project Narrative

SV8011 was analyzed outside of the 14 day holding time dueto lab error.

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	07/04/2018 02:27	WG1133744
1,2-Dichloroethane	ND		0.00100	1	07/04/2018 02:27	WG1133744
Ethylbenzene	ND		0.00100	1	07/04/2018 02:27	WG1133744
1,2-Dibromoethane	ND		0.00100	1	07/04/2018 02:27	WG1133744
Isopropylbenzene	ND		0.00100	1	07/04/2018 02:27	WG1133744
Toluene	ND		0.00100	1	07/04/2018 02:27	WG1133744
1,2,4-Trimethylbenzene	ND		0.00100	1	07/04/2018 02:27	WG1133744
1,3,5-Trimethylbenzene	ND		0.00100	1	07/04/2018 02:27	WG1133744
Xylenes, Total	ND		0.00300	1	07/04/2018 02:27	WG1133744
Methyl tert-butyl ether	ND		0.00100	1	07/04/2018 02:27	WG1133744
tert-Butyl alcohol	ND	J4	0.00500	1	07/04/2018 02:27	WG1133744
(S) Toluene-d8	*100*		*80.0-120*		*07/04/2018 02:27*	WG1133744
(S) Dibromofluoromethane	*90.5*		*76.0-123*		*07/04/2018 02:27*	WG1133744
(S) 4-Bromofluorobenzene	*95.9*		*80.0-120*		*07/04/2018 02:27*	WG1133744

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/10/2018 01:14	WG1134555

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.0483		0.0100	10	07/04/2018 05:56	WG1133713
Isopropylbenzene	0.0536		0.0100	10	07/04/2018 05:56	WG1133713
1,2-Dichloroethane	ND		0.0100	10	07/04/2018 05:56	WG1133713
Ethylbenzene	ND		0.0100	10	07/04/2018 05:56	WG1133713
Methyl tert-butyl ether	0.0161		0.0100	10	07/04/2018 05:56	WG1133713
Toluene	ND		0.0100	10	07/04/2018 05:56	WG1133713
1,2,4-Trimethylbenzene	ND		0.0100	10	07/04/2018 05:56	WG1133713
1,3,5-Trimethylbenzene	ND		0.0100	10	07/04/2018 05:56	WG1133713
Xylenes, Total	ND		0.0300	10	07/04/2018 05:56	WG1133713
(S) Toluene-d8	*107*		*80.0-120*		*07/04/2018 05:56*	WG1133713
(S) Dibromofluoromethane	*92.6*		*76.0-123*		*07/04/2018 05:56*	WG1133713
(S) 4-Bromofluorobenzene	*95.0*		*80.0-120*		*07/04/2018 05:56*	WG1133713

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/10/2018 04:43	WG1134323

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.000100	2	07/06/2018 04:15	WG1133547
Benzo(a)anthracene	ND		0.000100	2	07/06/2018 04:15	WG1133547
Benzo(a)pyrene	ND		0.000100	2	07/06/2018 04:15	WG1133547
Benzo(b)fluoranthene	ND		0.000100	2	07/06/2018 04:15	WG1133547
Benzo(g,h,i)perylene	ND		0.000100	2	07/06/2018 04:15	WG1133547
Chrysene	ND		0.000100	2	07/06/2018 04:15	WG1133547
Fluorene	ND		0.000100	2	07/06/2018 04:15	WG1133547
Naphthalene	0.000729		0.000500	2	07/06/2018 04:15	WG1133547
Phenanthrene	ND		0.000100	2	07/06/2018 04:15	WG1133547
Pyrene	ND		0.000100	2	07/06/2018 04:15	WG1133547
(S) Nitrobenzene-d5	*77.4*		*31.0-160*		*07/06/2018 04:15*	WG1133547
(S) 2-Fluorobiphenyl	*92.6*		*48.0-148*		*07/06/2018 04:15*	WG1133547
(S) p-Terphenyl-d14	*80.4*		*37.0-146*		*07/06/2018 04:15*	WG1133547

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/10/2018 01:19	WG1134555

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.145		0.0100	10	07/04/2018 06:17	WG1133713
Isopropylbenzene	0.0191		0.0100	10	07/04/2018 06:17	WG1133713
1,2-Dichloroethane	ND		0.0100	10	07/04/2018 06:17	WG1133713
Ethylbenzene	ND		0.0100	10	07/04/2018 06:17	WG1133713
Methyl tert-butyl ether	ND		0.0100	10	07/04/2018 06:17	WG1133713
Toluene	ND		0.0100	10	07/04/2018 06:17	WG1133713
1,2,4-Trimethylbenzene	ND		0.0100	10	07/04/2018 06:17	WG1133713
1,3,5-Trimethylbenzene	ND		0.0100	10	07/04/2018 06:17	WG1133713
Xylenes, Total	ND		0.0300	10	07/04/2018 06:17	WG1133713
(S) Toluene-d8	*106*		*80.0-120*		*07/04/2018 06:17*	WG1133713
(S) Dibromofluoromethane	*95.5*		*76.0-123*		*07/04/2018 06:17*	WG1133713
(S) 4-Bromofluorobenzene	*92.3*		*80.0-120*		*07/04/2018 06:17*	WG1133713

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/10/2018 03:29	WG1134323

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.000100	2	07/06/2018 04:37	WG1133547
Benzo(a)anthracene	ND		0.000100	2	07/06/2018 04:37	WG1133547
Benzo(a)pyrene	ND		0.000100	2	07/06/2018 04:37	WG1133547
Benzo(b)fluoranthene	ND		0.000100	2	07/06/2018 04:37	WG1133547
Benzo(g,h,i)perylene	ND		0.000100	2	07/06/2018 04:37	WG1133547
Chrysene	ND		0.000100	2	07/06/2018 04:37	WG1133547
Fluorene	ND		0.000100	2	07/06/2018 04:37	WG1133547
Naphthalene	0.00139		0.000500	2	07/06/2018 04:37	WG1133547
Phenanthrene	ND		0.000100	2	07/06/2018 04:37	WG1133547
Pyrene	ND		0.000100	2	07/06/2018 04:37	WG1133547
(S) Nitrobenzene-d5	*78.0*		*31.0-160*		*07/06/2018 04:37*	WG1133547
(S) 2-Fluorobiphenyl	*97.0*		*48.0-148*		*07/06/2018 04:37*	WG1133547
(S) p-Terphenyl-d14	*84.0*		*37.0-146*		*07/06/2018 04:37*	WG1133547

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	0.00384		0.00200	1	07/10/2018 01:23	WG1134555

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	1.03		0.0500	50	07/04/2018 06:38	WG1133713
Isopropylbenzene	0.131		0.0500	50	07/04/2018 06:38	WG1133713
1,2-Dichloroethane	ND		0.0500	50	07/04/2018 06:38	WG1133713
Ethylbenzene	0.144		0.0500	50	07/04/2018 06:38	WG1133713
Methyl tert-butyl ether	ND		0.0500	50	07/04/2018 06:38	WG1133713
Toluene	0.118		0.0500	50	07/04/2018 06:38	WG1133713
1,2,4-Trimethylbenzene	ND		0.0500	50	07/04/2018 06:38	WG1133713
1,3,5-Trimethylbenzene	ND		0.0500	50	07/04/2018 06:38	WG1133713
Xylenes, Total	0.157		0.150	50	07/04/2018 06:38	WG1133713
(S) Toluene-d8	*107*		*80.0-120*		*07/04/2018 06:38*	WG1133713
(S) Dibromofluoromethane	*93.7*		*76.0-123*		*07/04/2018 06:38*	WG1133713
(S) 4-Bromofluorobenzene	*92.6*		*80.0-120*		*07/04/2018 06:38*	WG1133713

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/10/2018 04:56	WG1134323

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.000100	2	07/06/2018 04:59	WG1133547
Benzo(a)anthracene	ND		0.000100	2	07/06/2018 04:59	WG1133547
Benzo(a)pyrene	ND		0.000100	2	07/06/2018 04:59	WG1133547
Benzo(b)fluoranthene	ND		0.000100	2	07/06/2018 04:59	WG1133547
Benzo(g,h,i)perylene	ND		0.000100	2	07/06/2018 04:59	WG1133547
Chrysene	ND		0.000100	2	07/06/2018 04:59	WG1133547
Fluorene	0.000378		0.000100	2	07/06/2018 04:59	WG1133547
Naphthalene	0.0252		0.000500	2	07/06/2018 04:59	WG1133547
Phenanthrene	0.000195		0.000100	2	07/06/2018 04:59	WG1133547
Pyrene	ND		0.000100	2	07/06/2018 04:59	WG1133547
(S) Nitrobenzene-d5	*72.0*		*31.0-160*		*07/06/2018 04:59*	WG1133547
(S) 2-Fluorobiphenyl	*90.0*		*48.0-148*		*07/06/2018 04:59*	WG1133547
(S) p-Terphenyl-d14	*81.0*		*37.0-146*		*07/06/2018 04:59*	WG1133547

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/10/2018 01:27	WG1134555

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.241		0.0100	10	07/04/2018 07:00	WG1133713
Isopropylbenzene	0.0225		0.0100	10	07/04/2018 07:00	WG1133713
1,2-Dichloroethane	ND		0.0100	10	07/04/2018 07:00	WG1133713
Ethylbenzene	0.131		0.0100	10	07/04/2018 07:00	WG1133713
Methyl tert-butyl ether	0.0157		0.0100	10	07/04/2018 07:00	WG1133713
Toluene	0.703		0.0100	10	07/04/2018 07:00	WG1133713
1,2,4-Trimethylbenzene	0.532		0.0100	10	07/04/2018 07:00	WG1133713
1,3,5-Trimethylbenzene	0.184		0.0100	10	07/04/2018 07:00	WG1133713
Xylenes, Total	1.81		0.0300	10	07/04/2018 07:00	WG1133713
(S) Toluene-d8	*107*		*80.0-120*		*07/04/2018 07:00*	WG1133713
(S) Dibromofluoromethane	*94.8*		*76.0-123*		*07/04/2018 07:00*	WG1133713
(S) 4-Bromofluorobenzene	*94.8*		*80.0-120*		*07/04/2018 07:00*	WG1133713

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/10/2018 05:08	WG1134323

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.000100	2	07/06/2018 05:21	WG1133547
Benzo(a)anthracene	ND		0.000100	2	07/06/2018 05:21	WG1133547
Benzo(a)pyrene	ND		0.000100	2	07/06/2018 05:21	WG1133547
Benzo(b)fluoranthene	ND		0.000100	2	07/06/2018 05:21	WG1133547
Benzo(g,h,i)perylene	ND		0.000100	2	07/06/2018 05:21	WG1133547
Chrysene	ND		0.000100	2	07/06/2018 05:21	WG1133547
Fluorene	0.000432		0.000100	2	07/06/2018 05:21	WG1133547
Naphthalene	0.0970		0.000500	2	07/06/2018 05:21	WG1133547
Phenanthrene	0.000292		0.000100	2	07/06/2018 05:21	WG1133547
Pyrene	ND		0.000100	2	07/06/2018 05:21	WG1133547
(S) Nitrobenzene-d5	*81.8*		*31.0-160*		*07/06/2018 05:21*	WG1133547
(S) 2-Fluorobiphenyl	*89.8*		*48.0-148*		*07/06/2018 05:21*	WG1133547
(S) p-Terphenyl-d14	*87.0*		*37.0-146*		*07/06/2018 05:21*	WG1133547

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Methyl tert-butyl ether	0.0282		0.00100	1	07/04/2018 07:21	WG1133713
tert-Butyl alcohol	ND	J4	0.00500	1	07/04/2018 07:21	WG1133713
(S) Toluene-d8	*105*		*80.0-120*		*07/04/2018 07:21*	WG1133713
(S) Dibromofluoromethane	*96.8*		*76.0-123*		*07/04/2018 07:21*	WG1133713
(S) 4-Bromofluorobenzene	*94.7*		*80.0-120*		*07/04/2018 07:21*	WG1133713

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Methyl tert-butyl ether	0.0551		0.00100	1	07/04/2018 07:42	WG1133713
tert-Butyl alcohol	ND	J4	0.00500	1	07/04/2018 07:42	WG1133713
(S) Toluene-d8	*107*		*80.0-120*		*07/04/2018 07:42*	WG1133713
(S) Dibromofluoromethane	*97.2*		*76.0-123*		*07/04/2018 07:42*	WG1133713
(S) 4-Bromofluorobenzene	*94.0*		*80.0-120*		*07/04/2018 07:42*	WG1133713

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Methyl tert-butyl ether	0.0506		0.00100	1	07/04/2018 08:03	WG1133713
tert-Butyl alcohol	ND	J4	0.00500	1	07/04/2018 08:03	WG1133713
(S) Toluene-d8	*102*		*80.0-120*		*07/04/2018 08:03*	WG1133713
(S) Dibromofluoromethane	*97.7*		*76.0-123*		*07/04/2018 08:03*	WG1133713
(S) 4-Bromofluorobenzene	*93.9*		*80.0-120*		*07/04/2018 08:03*	WG1133713

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Methyl tert-butyl ether	0.0486		0.00100	1	07/04/2018 08:24	WG1133713
tert-Butyl alcohol	ND	J4	0.00500	1	07/04/2018 08:24	WG1133713
(S) Toluene-d8	*106*		*80.0-120*		*07/04/2018 08:24*	WG1133713
(S) Dibromofluoromethane	*97.1*		*76.0-123*		*07/04/2018 08:24*	WG1133713
(S) 4-Bromofluorobenzene	*93.5*		*80.0-120*		*07/04/2018 08:24*	WG1133713

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/10/2018 01:31	WG1134555

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.00135		0.00100	1	07/04/2018 11:20	WG1133656
Isopropylbenzene	ND		0.00100	1	07/04/2018 11:20	WG1133656
1,2-Dichloroethane	ND		0.00100	1	07/04/2018 11:20	WG1133656
Ethylbenzene	ND		0.00100	1	07/09/2018 13:56	WG1135278
Methyl tert-butyl ether	0.0124		0.00100	1	07/04/2018 11:20	WG1133656
Toluene	ND		0.00100	1	07/09/2018 13:56	WG1135278
1,2,4-Trimethylbenzene	ND		0.00100	1	07/09/2018 13:56	WG1135278
1,3,5-Trimethylbenzene	ND		0.00100	1	07/09/2018 13:56	WG1135278
Xylenes, Total	ND		0.00300	1	07/09/2018 13:56	WG1135278
(S) Toluene-d8	*102*		*80.0-120*		*07/04/2018 11:20*	WG1133656
(S) Toluene-d8	*102*		*80.0-120*		*07/09/2018 13:56*	WG1135278
(S) Dibromofluoromethane	*96.1*		*76.0-123*		*07/04/2018 11:20*	WG1133656
(S) Dibromofluoromethane	*91.1*		*76.0-123*		*07/09/2018 13:56*	WG1135278
(S) 4-Bromofluorobenzene	*107*		*80.0-120*		*07/04/2018 11:20*	WG1133656
(S) 4-Bromofluorobenzene	*91.6*		*80.0-120*		*07/09/2018 13:56*	WG1135278

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/10/2018 05:45	WG1134323

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.0000807		0.0000500	1	07/06/2018 05:43	WG1133547
Benzo(a)anthracene	ND		0.0000500	1	07/06/2018 05:43	WG1133547
Benzo(a)pyrene	ND		0.0000500	1	07/06/2018 05:43	WG1133547
Benzo(b)fluoranthene	ND		0.0000500	1	07/06/2018 05:43	WG1133547
Benzo(g,h,i)perylene	ND		0.0000500	1	07/06/2018 05:43	WG1133547
Chrysene	ND		0.0000500	1	07/06/2018 05:43	WG1133547
Fluorene	0.000367		0.0000500	1	07/06/2018 05:43	WG1133547
Naphthalene	ND		0.000250	1	07/06/2018 05:43	WG1133547
Phenanthrene	0.0000809		0.0000500	1	07/06/2018 05:43	WG1133547
Pyrene	ND		0.0000500	1	07/06/2018 05:43	WG1133547
(S) Nitrobenzene-d5	*84.9*		*31.0-160*		*07/06/2018 05:43*	WG1133547
(S) 2-Fluorobiphenyl	*97.5*		*48.0-148*		*07/06/2018 05:43*	WG1133547
(S) p-Terphenyl-d14	*90.5*		*37.0-146*		*07/06/2018 05:43*	WG1133547

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/10/2018 01:35	WG1134555

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.00130		0.00100	1	07/09/2018 14:18	WG1135278
Isopropylbenzene	ND		0.00100	1	07/09/2018 14:18	WG1135278
1,2-Dichloroethane	ND		0.00100	1	07/09/2018 16:04	WG1135479
Ethylbenzene	ND		0.00100	1	07/09/2018 14:18	WG1135278
Methyl tert-butyl ether	0.0117		0.00100	1	07/09/2018 14:18	WG1135278
Toluene	ND		0.00100	1	07/09/2018 14:18	WG1135278
1,2,4-Trimethylbenzene	ND		0.00100	1	07/09/2018 14:18	WG1135278
1,3,5-Trimethylbenzene	ND		0.00100	1	07/09/2018 14:18	WG1135278
Xylenes, Total	ND		0.00300	1	07/09/2018 14:18	WG1135278
(S) Toluene-d8	*103*		*80.0-120*		*07/09/2018 14:18*	WG1135278
(S) Toluene-d8	*112*		*80.0-120*		*07/09/2018 16:04*	WG1135479
(S) Dibromofluoromethane	*89.8*		*76.0-123*		*07/09/2018 14:18*	WG1135278
(S) Dibromofluoromethane	*94.3*		*76.0-123*		*07/09/2018 16:04*	WG1135479
(S) 4-Bromofluorobenzene	*90.6*		*80.0-120*		*07/09/2018 14:18*	WG1135278
(S) 4-Bromofluorobenzene	*91.7*		*80.0-120*		*07/09/2018 16:04*	WG1135479

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/10/2018 05:57	WG1134323

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.000106		0.0000500	1	07/06/2018 06:05	WG1133547
Benzo(a)anthracene	ND		0.0000500	1	07/06/2018 06:05	WG1133547
Benzo(a)pyrene	ND		0.0000500	1	07/06/2018 06:05	WG1133547
Benzo(b)fluoranthene	ND		0.0000500	1	07/06/2018 06:05	WG1133547
Benzo(g,h,i)perylene	ND		0.0000500	1	07/06/2018 06:05	WG1133547
Chrysene	ND		0.0000500	1	07/06/2018 06:05	WG1133547
Fluorene	0.000457		0.0000500	1	07/06/2018 06:05	WG1133547
Naphthalene	ND		0.000250	1	07/06/2018 06:05	WG1133547
Phenanthrene	0.000145		0.0000500	1	07/06/2018 06:05	WG1133547
Pyrene	ND		0.0000500	1	07/06/2018 06:05	WG1133547
(S) Nitrobenzene-d5	*85.6*		*31.0-160*		*07/06/2018 06:05*	WG1133547
(S) 2-Fluorobiphenyl	*96.4*		*48.0-148*		*07/06/2018 06:05*	WG1133547
(S) p-Terphenyl-d14	*94.1*		*37.0-146*		*07/06/2018 06:05*	WG1133547

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.0671		0.0500	50	07/04/2018 08:45	WG1133713
1,2-Dichloroethane	ND		0.0500	50	07/04/2018 08:45	WG1133713
Ethylbenzene	ND		0.0500	50	07/04/2018 08:45	WG1133713
Isopropylbenzene	ND		0.0500	50	07/04/2018 08:45	WG1133713
Toluene	ND		0.0500	50	07/04/2018 08:45	WG1133713
1,2,4-Trimethylbenzene	ND		0.0500	50	07/04/2018 08:45	WG1133713
1,3,5-Trimethylbenzene	ND		0.0500	50	07/04/2018 08:45	WG1133713
Xylenes, Total	ND		0.150	50	07/04/2018 08:45	WG1133713
Methyl tert-butyl ether	ND		0.0500	50	07/04/2018 08:45	WG1133713
tert-Butyl alcohol	1.16	J4	0.250	50	07/04/2018 08:45	WG1133713
(S) Toluene-d8	*105*		*80.0-120*		*07/04/2018 08:45*	WG1133713
(S) Dibromofluoromethane	*96.5*		*76.0-123*		*07/04/2018 08:45*	WG1133713
(S) 4-Bromofluorobenzene	*90.9*		*80.0-120*		*07/04/2018 08:45*	WG1133713

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND	T8	0.0000100	1	07/21/2018 02:13	WG1140686

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.0867		0.0500	50	07/04/2018 09:06	WG1133713
1,2-Dichloroethane	ND		0.0500	50	07/04/2018 09:06	WG1133713
Ethylbenzene	ND		0.0500	50	07/04/2018 09:06	WG1133713
Isopropylbenzene	0.0742		0.0500	50	07/04/2018 09:06	WG1133713
Toluene	ND		0.0500	50	07/04/2018 09:06	WG1133713
1,2,4-Trimethylbenzene	ND		0.0500	50	07/04/2018 09:06	WG1133713
1,3,5-Trimethylbenzene	ND		0.0500	50	07/04/2018 09:06	WG1133713
Xylenes, Total	ND		0.150	50	07/04/2018 09:06	WG1133713
Methyl tert-butyl ether	ND		0.0500	50	07/04/2018 09:06	WG1133713
tert-Butyl alcohol	1.01	J4	0.250	50	07/04/2018 09:06	WG1133713
(S) Toluene-d8	*106*		*80.0-120*		*07/04/2018 09:06*	WG1133713
(S) Dibromofluoromethane	*95.6*		*76.0-123*		*07/04/2018 09:06*	WG1133713
(S) 4-Bromofluorobenzene	*90.7*		*80.0-120*		*07/04/2018 09:06*	WG1133713

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND	T8	0.0000100	1	07/21/2018 02:26	WG1140686

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	4.65		2.00	2000	07/10/2018 03:39	WG1135333
1,2-Dichloroethane	ND		0.00100	1	07/04/2018 09:27	WG1133713
Ethylbenzene	0.0203		0.00100	1	07/04/2018 09:27	WG1133713
Isopropylbenzene	0.0149		0.00100	1	07/04/2018 09:27	WG1133713
Toluene	0.00101		0.00100	1	07/04/2018 09:27	WG1133713
1,2,4-Trimethylbenzene	0.00419		0.00100	1	07/04/2018 09:27	WG1133713
1,3,5-Trimethylbenzene	ND		0.00100	1	07/04/2018 09:27	WG1133713
Xylenes, Total	0.0221		0.00300	1	07/04/2018 09:27	WG1133713
Methyl tert-butyl ether	2.12		2.00	2000	07/10/2018 03:39	WG1135333
tert-Butyl alcohol	72.8		10.0	2000	07/10/2018 03:39	WG1135333
(S) Toluene-d8	*106*		*80.0-120*		*07/04/2018 09:27*	WG1133713
(S) Toluene-d8	*106*		*80.0-120*		*07/10/2018 03:39*	WG1135333
(S) Dibromofluoromethane	*94.2*		*76.0-123*		*07/04/2018 09:27*	WG1133713
(S) Dibromofluoromethane	*96.7*		*76.0-123*		*07/10/2018 03:39*	WG1135333
(S) 4-Bromofluorobenzene	*97.5*		*80.0-120*		*07/04/2018 09:27*	WG1133713
(S) 4-Bromofluorobenzene	*96.9*		*80.0-120*		*07/10/2018 03:39*	WG1135333

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND	T8	0.0000100	.998	07/27/2018 00:19	WG1143228

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	5.20		2.00	2000	07/10/2018 03:59	WG1135333
1,2-Dichloroethane	ND		0.00100	1	07/04/2018 09:48	WG1133713
Ethylbenzene	0.0239		0.00100	1	07/04/2018 09:48	WG1133713
Isopropylbenzene	0.0201		0.00100	1	07/04/2018 09:48	WG1133713
Toluene	0.00113		0.00100	1	07/04/2018 09:48	WG1133713
1,2,4-Trimethylbenzene	0.00532		0.00100	1	07/04/2018 09:48	WG1133713
1,3,5-Trimethylbenzene	ND		0.00100	1	07/04/2018 09:48	WG1133713
Xylenes, Total	0.0250		0.00300	1	07/04/2018 09:48	WG1133713
Methyl tert-butyl ether	2.29		2.00	2000	07/10/2018 03:59	WG1135333
tert-Butyl alcohol	75.4		10.0	2000	07/10/2018 03:59	WG1135333
(S) Toluene-d8	*106*		*80.0-120*		*07/04/2018 09:48*	WG1133713
(S) Toluene-d8	*106*		*80.0-120*		*07/10/2018 03:59*	WG1135333
(S) Dibromofluoromethane	*94.8*		*76.0-123*		*07/04/2018 09:48*	WG1133713
(S) Dibromofluoromethane	*95.9*		*76.0-123*		*07/10/2018 03:59*	WG1135333
(S) 4-Bromofluorobenzene	*97.5*		*80.0-120*		*07/04/2018 09:48*	WG1133713
(S) 4-Bromofluorobenzene	*94.8*		*80.0-120*		*07/10/2018 03:59*	WG1135333

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND	T8	0.0000100	1	07/27/2018 00:30	WG1143228

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	7.62		0.0500	50	07/04/2018 10:09	WG1133713
1,2-Dichloroethane	ND		0.0500	50	07/04/2018 10:09	WG1133713
Ethylbenzene	0.282		0.0500	50	07/04/2018 10:09	WG1133713
Isopropylbenzene	0.0505		0.0500	50	07/04/2018 10:09	WG1133713
Toluene	ND		0.0500	50	07/04/2018 10:09	WG1133713
1,2,4-Trimethylbenzene	0.519		0.0500	50	07/04/2018 10:09	WG1133713
1,3,5-Trimethylbenzene	0.124		0.0500	50	07/04/2018 10:09	WG1133713
Xylenes, Total	0.502		0.150	50	07/04/2018 10:09	WG1133713
Methyl tert-butyl ether	0.195		0.0500	50	07/04/2018 10:09	WG1133713
tert-Butyl alcohol	3.07		1.25	250	07/09/2018 00:45	WG1135123
(S) Toluene-d8	*107*		*80.0-120*		*07/04/2018 10:09*	WG1133713
(S) Toluene-d8	*97.9*		*80.0-120*		*07/09/2018 00:45*	WG1135123
(S) Dibromofluoromethane	*89.6*		*76.0-123*		*07/04/2018 10:09*	WG1133713
(S) Dibromofluoromethane	*97.2*		*76.0-123*		*07/09/2018 00:45*	WG1135123
(S) 4-Bromofluorobenzene	*95.2*		*80.0-120*		*07/04/2018 10:09*	WG1133713
(S) 4-Bromofluorobenzene	*94.0*		*80.0-120*		*07/09/2018 00:45*	WG1135123

EDB / DBCP by Method 8011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	ND	T8	0.0000100	1	07/21/2018 03:27	WG1140686

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	30.2		0.500	500	07/10/2018 04:19	WG1135333
1,2-Dichloroethane	ND		0.0100	10	07/04/2018 10:31	WG1133713
Ethylbenzene	0.249		0.0100	10	07/04/2018 10:31	WG1133713
Isopropylbenzene	0.0833		0.0100	10	07/04/2018 10:31	WG1133713
Toluene	0.131		0.0100	10	07/04/2018 10:31	WG1133713
1,2,4-Trimethylbenzene	0.149		0.0100	10	07/04/2018 10:31	WG1133713
1,3,5-Trimethylbenzene	0.0671		0.0100	10	07/04/2018 10:31	WG1133713
Xylenes, Total	0.273		0.0300	10	07/04/2018 10:31	WG1133713
Methyl tert-butyl ether	0.0647		0.0100	10	07/04/2018 10:31	WG1133713
tert-Butyl alcohol	1.48		0.500	100	07/09/2018 01:05	WG1135123
(S) Toluene-d8	*105*		*80.0-120*		*07/04/2018 10:31*	WG1133713
(S) Toluene-d8	*98.0*		*80.0-120*		*07/09/2018 01:05*	WG1135123
(S) Toluene-d8	*106*		*80.0-120*		*07/10/2018 04:19*	WG1135333
(S) Dibromofluoromethane	*95.8*		*76.0-123*		*07/04/2018 10:31*	WG1133713
(S) Dibromofluoromethane	*98.2*		*76.0-123*		*07/09/2018 01:05*	WG1135123
(S) Dibromofluoromethane	*98.0*		*76.0-123*		*07/10/2018 04:19*	WG1135333
(S) 4-Bromofluorobenzene	*95.9*		*80.0-120*		*07/04/2018 10:31*	WG1133713
(S) 4-Bromofluorobenzene	*90.4*		*80.0-120*		*07/09/2018 01:05*	WG1135123
(S) 4-Bromofluorobenzene	*94.1*		*80.0-120*		*07/10/2018 04:19*	WG1135333

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND	T8	0.0000100	1	07/21/2018 03:40	WG1140686

Method Blank (MB)

(MB) R3324217-1 07/10/18 00:19

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Lead,Dissolved	U		0.000240	0.00200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324217-2 07/10/18 00:23 • (LCSD) R3324217-3 07/10/18 00:27

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Lead,Dissolved	0.0500	0.0477	0.0474	95.4	94.8	80.0-120			0.633	20

L1006563-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1006563-05 07/10/18 00:31 • (MS) R3324217-5 07/10/18 00:39 • (MSD) R3324217-6 07/10/18 00:44

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Lead,Dissolved	0.0500	ND	0.0467	0.0478	93.3	95.6	1	75.0-125			2.40	20

Method Blank (MB)

(MB) R3323969-3 07/04/18 05:01

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
(S) Toluene-d8	*105*			*80.0-120*
(S) Dibromofluoromethane	*98.2*			*76.0-123*
(S) 4-Bromofluorobenzene	*103*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323969-1 07/04/18 04:01 • (LCSD) R3323969-2 07/04/18 04:21

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0231	0.0232	92.6	92.8	69.0-123			0.224	20
1,2-Dichloroethane	0.0250	0.0266	0.0267	107	107	67.0-126			0.163	20
Isopropylbenzene	0.0250	0.0286	0.0265	114	106	75.0-120			7.70	20
Methyl tert-butyl ether	0.0250	0.0242	0.0247	96.9	98.6	64.0-123			1.76	20
(S) Toluene-d8				*99.9*	*102*	*80.0-120*				
(S) Dibromofluoromethane				*95.7*	*97.4*	*76.0-123*				
(S) 4-Bromofluorobenzene				*105*	*103*	*80.0-120*				

L1006109-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1006109-09 07/04/18 08:40 • (MS) R3323969-4 07/04/18 12:00 • (MSD) R3323969-5 07/04/18 12:20

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	ND	0.0244	0.0244	97.4	97.5	1	34.0-147			0.104	20
1,2-Dichloroethane	0.0250	ND	0.0265	0.0264	106	105	1	47.0-141			0.387	20
Isopropylbenzene	0.0250	ND	0.0291	0.0287	116	115	1	48.0-141			1.28	20
Methyl tert-butyl ether	0.0250	ND	0.0239	0.0236	95.7	94.6	1	42.0-142			1.20	20
(S) Toluene-d8					*104*	*104*		*80.0-120*				
(S) Dibromofluoromethane					*96.8*	*96.9*		*76.0-123*				
(S) 4-Bromofluorobenzene					*107*	*103*		*80.0-120*				

Method Blank (MB)

(MB) R3323875-4 07/04/18 05:14

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
tert-Butyl alcohol	U		0.00240	0.00500
(S) Toluene-d8	*110*			*80.0-120*
(S) Dibromofluoromethane	*91.6*			*76.0-123*
(S) 4-Bromofluorobenzene	*93.1*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323875-1 07/04/18 03:51 • (LCSD) R3323875-2 07/04/18 04:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0244	0.0241	97.5	96.4	69.0-123			1.18	20
1,2-Dichloroethane	0.0250	0.0254	0.0256	102	102	67.0-126			0.719	20
Ethylbenzene	0.0250	0.0272	0.0271	109	109	77.0-120			0.312	20
Isopropylbenzene	0.0250	0.0265	0.0263	106	105	75.0-120			0.554	20
Methyl tert-butyl ether	0.0250	0.0237	0.0240	94.8	96.0	64.0-123			1.22	20
Toluene	0.0250	0.0266	0.0266	106	107	77.0-120			0.258	20
1,2,4-Trimethylbenzene	0.0250	0.0265	0.0273	106	109	75.0-120			3.07	20
1,3,5-Trimethylbenzene	0.0250	0.0264	0.0262	106	105	75.0-120			0.703	20
Xylenes, Total	0.0750	0.0802	0.0806	107	107	77.0-120			0.498	20
(S) Toluene-d8				*107*	*107*	*80.0-120*				
(S) Dibromofluoromethane				*91.1*	*91.7*	*76.0-123*				
(S) 4-Bromofluorobenzene				*96.4*	*97.1*	*80.0-120*				

Laboratory Control Sample (LCS)

(LCS) R3323875-3 07/04/18 04:33

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
tert-Butyl alcohol	0.0500	0.0838	168	50.0-150	J4
(S) Toluene-d8			*110*	*80.0-120*	

Laboratory Control Sample (LCS)

(LCS) R3323875-3 07/04/18 04:33

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
(S) Dibromofluoromethane			*89.9*	*76.0-123*	
(S) 4-Bromofluorobenzene			*97.9*	*80.0-120*	

Method Blank (MB)

(MB) R3324109-4 07/04/18 01:48

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dibromoethane	U		0.000381	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
tert-Butyl alcohol	U		0.00240	0.00500
(S) Toluene-d8	*100*			*80.0-120*
(S) Dibromofluoromethane	*91.2*			*76.0-123*
(S) 4-Bromofluorobenzene	*95.7*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324109-1 07/04/18 00:30 • (LCSD) R3324109-2 07/04/18 00:50

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0277	0.0281	111	112	69.0-123			1.49	20
1,2-Dibromoethane	0.0250	0.0269	0.0282	108	113	77.0-123			4.87	20
1,2-Dichloroethane	0.0250	0.0269	0.0276	107	110	67.0-126			2.75	20
Ethylbenzene	0.0250	0.0267	0.0277	107	111	77.0-120			3.93	20
Isopropylbenzene	0.0250	0.0256	0.0263	103	105	75.0-120			2.73	20
Methyl tert-butyl ether	0.0250	0.0268	0.0270	107	108	64.0-123			0.607	20
Toluene	0.0250	0.0275	0.0282	110	113	77.0-120			2.26	20
1,2,4-Trimethylbenzene	0.0250	0.0260	0.0269	104	107	75.0-120			3.23	20
1,3,5-Trimethylbenzene	0.0250	0.0248	0.0258	99.2	103	75.0-120			4.08	20
Xylenes, Total	0.0750	0.0809	0.0838	108	112	77.0-120			3.52	20
(S) Toluene-d8				*98.1*	*99.0*	*80.0-120*				
(S) Dibromofluoromethane				*91.3*	*90.2*	*76.0-123*				
(S) 4-Bromofluorobenzene				*95.0*	*94.8*	*80.0-120*				

Laboratory Control Sample (LCS)

(LCS) R3324109-3 07/04/18 01:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
tert-Butyl alcohol	0.0500	0.0237	47.3	50.0-150	J4
(S) Toluene-d8			*101*	*80.0-120*	
(S) Dibromofluoromethane			*91.9*	*76.0-123*	
(S) 4-Bromofluorobenzene			*93.3*	*80.0-120*	

Method Blank (MB)

(MB) R3324003-4 07/08/18 14:49

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
tert-Butyl alcohol	U		0.00240	0.00500
(S) Toluene-d8	*101*			*80.0-120*
(S) Dibromofluoromethane	*96.5*			*76.0-123*
(S) 4-Bromofluorobenzene	*92.9*			*80.0-120*

Laboratory Control Sample (LCS)

(LCS) R3324003-3 07/08/18 14:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
tert-Butyl alcohol	0.0500	0.0527	105	50.0-150	
(S) Toluene-d8			*98.6*	*80.0-120*	
(S) Dibromofluoromethane			*98.1*	*76.0-123*	
(S) 4-Bromofluorobenzene			*93.6*	*80.0-120*	

Method Blank (MB)

(MB) R3324104-3 07/09/18 11:23

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*104*			*80.0-120*
(S) Dibromofluoromethane	*90.6*			*76.0-123*
(S) 4-Bromofluorobenzene	*90.0*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324104-1 07/09/18 09:35 • (LCSD) R3324104-2 07/09/18 09:57

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0205	0.0208	82.2	83.3	69.0-123			1.40	20
Ethylbenzene	0.0250	0.0258	0.0264	103	106	77.0-120			2.40	20
Isopropylbenzene	0.0250	0.0240	0.0244	96.2	97.4	75.0-120			1.30	20
Methyl tert-butyl ether	0.0250	0.0204	0.0210	81.5	83.8	64.0-123			2.76	20
Toluene	0.0250	0.0236	0.0246	94.4	98.4	77.0-120			4.09	20
1,2,4-Trimethylbenzene	0.0250	0.0238	0.0240	95.1	95.9	75.0-120			0.890	20
1,3,5-Trimethylbenzene	0.0250	0.0238	0.0240	95.3	96.2	75.0-120			0.919	20
Xylenes, Total	0.0750	0.0770	0.0798	103	106	77.0-120			3.57	20
(S) Toluene-d8				*102*	*103*	*80.0-120*				
(S) Dibromofluoromethane				*90.3*	*89.9*	*76.0-123*				
(S) 4-Bromofluorobenzene				*90.1*	*88.4*	*80.0-120*				

Method Blank (MB)

(MB) R3324243-4 07/10/18 01:18

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
(S) Toluene-d8	*108*			*80.0-120*
(S) Dibromofluoromethane	*97.1*			*76.0-123*
(S) 4-Bromofluorobenzene	*95.3*			*80.0-120*

Laboratory Control Sample (LCS)

(LCS) R3324243-1 07/09/18 23:37

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0250	0.0231	92.4	69.0-123	
Methyl tert-butyl ether	0.0250	0.0239	95.6	64.0-123	
(S) Toluene-d8			*104*	*80.0-120*	
(S) Dibromofluoromethane			*91.8*	*76.0-123*	
(S) 4-Bromofluorobenzene			*96.0*	*80.0-120*	

Laboratory Control Sample (LCS)

(LCS) R3324243-3 07/10/18 00:18

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
tert-Butyl alcohol	0.0500	0.0555	111	50.0-150	
(S) Toluene-d8			*105*	*80.0-120*	
(S) Dibromofluoromethane			*93.1*	*76.0-123*	
(S) 4-Bromofluorobenzene			*103*	*80.0-120*	

Method Blank (MB)

(MB) R3324122-3 07/09/18 10:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,2-Dichloroethane	U		0.000361	0.00100
(S) Toluene-d8	*113*			*80.0-120*
(S) Dibromofluoromethane	*92.0*			*76.0-123*
(S) 4-Bromofluorobenzene	*90.2*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324122-1 07/09/18 09:56 • (LCSD) R3324122-2 07/09/18 10:17

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,2-Dichloroethane	0.0250	0.0231	0.0245	92.2	97.9	67.0-126			5.93	20
(S) Toluene-d8				*106*	*109*	*80.0-120*				
(S) Dibromofluoromethane				*92.9*	*94.3*	*76.0-123*				
(S) 4-Bromofluorobenzene				*95.8*	*99.4*	*80.0-120*				

Method Blank (MB)

(MB) R3324567-1 07/10/18 02:41

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

Method Blank (MB)

(MB) R3325014-1 07/11/18 23:17

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1006118-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1006118-03 07/10/18 03:29 • (DUP) R3324567-3 07/10/18 03:17

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	ND	0.000	1			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324567-4 07/10/18 05:32 • (LCSD) R3324567-5 07/10/18 08:00

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000238	0.000236	95.2	94.4	60.0-140			0.844	20

L1006556-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1006556-02 07/10/18 03:05 • (MS) R3324567-2 07/10/18 02:53

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.000100	U	0.000111	111	1	72.0-146	

Method Blank (MB)

(MB) R3327677-1 07/20/18 23:57

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1009704-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1009704-01 07/21/18 00:47 • (DUP) R3327677-3 07/21/18 00:34

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	U	0.000	1			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3327677-4 07/21/18 02:50 • (LCSD) R3327677-5 07/21/18 05:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000239	0.000229	95.6	91.6	60.0-140			4.27	20

L1009704-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1009704-03 07/21/18 00:22 • (MS) R3327677-2 07/21/18 00:10

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.0000998	U	0.0000955	95.7	1	72.0-146	

Method Blank (MB)

(MB) R3328887-1 07/26/18 23:17

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1012111-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1012111-01 07/27/18 00:06 • (DUP) R3328887-3 07/26/18 23:54

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	ND	0.000	1			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3328887-4 07/27/18 01:07 • (LCSD) R3328887-5 07/27/18 01:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000253	0.000256	101	102	60.0-140			1.18	20

L1012025-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L1012025-04 07/26/18 23:42 • (MS) R3328887-2 07/26/18 23:29

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.0000998	ND	0.000120	120	.998	72.0-146	

Method Blank (MB)

(MB) R3323617-3 07/05/18 22:27

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Chrysene	U		0.0000108	0.0000500
Fluorene	U		0.00000850	0.0000500
Naphthalene	U		0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
(S) Nitrobenzene-d5	*81.9*			*31.0-160*
(S) 2-Fluorobiphenyl	*99.0*			*48.0-148*
(S) p-Terphenyl-d14	*83.0*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323617-1 07/05/18 21:43 • (LCSD) R3323617-2 07/05/18 22:05

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00219	0.00218	109	109	64.0-142			0.470	20
Benzo(a)anthracene	0.00200	0.00174	0.00171	86.8	85.5	59.0-134			1.55	20
Benzo(a)pyrene	0.00200	0.00186	0.00183	92.8	91.4	61.0-145			1.57	20
Benzo(b)fluoranthene	0.00200	0.00172	0.00169	85.9	84.5	57.0-136			1.71	20
Benzo(g,h,i)perylene	0.00200	0.00203	0.00199	101	99.7	54.0-140			1.53	20
Chrysene	0.00200	0.00205	0.00203	102	102	63.0-140			0.864	20
Fluorene	0.00200	0.00176	0.00173	88.1	86.7	64.0-129			1.55	20
Naphthalene	0.00200	0.00175	0.00180	87.7	90.2	68.0-129			2.88	20
Phenanthrene	0.00200	0.00184	0.00182	91.9	91.1	62.0-132			0.944	20
Pyrene	0.00200	0.00174	0.00173	86.9	86.6	58.0-156			0.322	20
(S) Nitrobenzene-d5				*87.6*	*86.3*	*31.0-160*				
(S) 2-Fluorobiphenyl				*104*	*98.9*	*48.0-148*				
(S) p-Terphenyl-d14				*88.7*	*86.5*	*37.0-146*				

L1006078-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1006078-02 07/05/18 23:54 • (MS) R3323617-4 07/06/18 00:16 • (MSD) R3323617-5 07/06/18 00:38

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	U	0.00209	0.00195	104	97.5	1	60.0-142			6.87	20
Benzo(a)anthracene	0.00200	U	0.00180	0.00173	89.8	86.4	1	55.0-134			3.82	20
Benzo(a)pyrene	0.00200	U	0.00186	0.00177	92.8	88.5	1	58.0-136			4.69	20
Benzo(b)fluoranthene	0.00200	U	0.00167	0.00163	83.6	81.6	1	54.0-130			2.40	20
Benzo(g,h,i)perylene	0.00200	U	0.00196	0.00187	98.2	93.4	1	46.0-135			4.98	20
Chrysene	0.00200	U	0.00198	0.00186	99.2	92.9	1	55.0-137			6.61	20
Fluorene	0.00200	0.00165	0.00362	0.00338	98.0	86.1	1	49.0-142			6.80	20
Naphthalene	0.00200	0.00246	0.00430	0.00402	92.0	77.9	1	29.0-154			6.78	20
Phenanthrene	0.00200	0.0000421	0.00192	0.00185	93.8	90.2	1	44.0-145			3.80	20
Pyrene	0.00200	U	0.00179	0.00171	89.3	85.7	1	62.0-150			4.09	20
(S) Nitrobenzene-d5					*87.9*	*85.4*		*31.0-160*				
(S) 2-Fluorobiphenyl					*99.8*	*94.1*		*48.0-148*				
(S) p-Terphenyl-d14					*91.1*	*87.8*		*37.0-146*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J4	The associated batch QC was outside the established quality control range for accuracy.
T8	Sample(s) received past/too close to holding time expiration.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

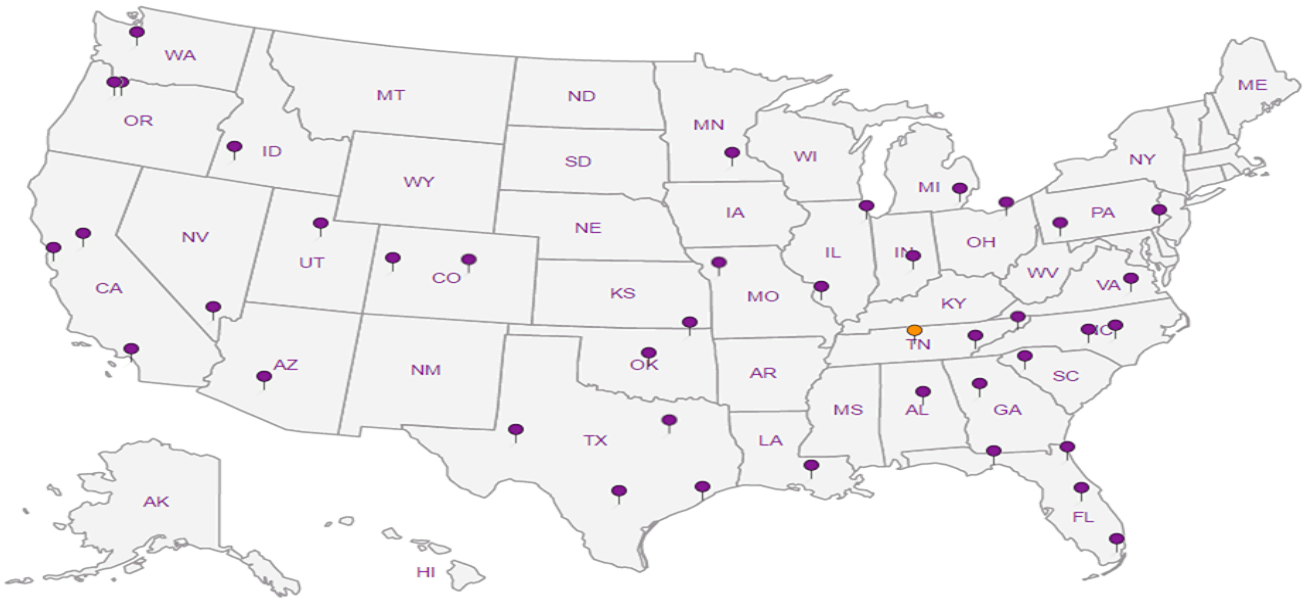
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Stantec - S/E

1060 Andrew Drive, Suite 140
West Chester, PA 19380

Billing Information:
Accounts Payable
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Pres Chk

Report to: **Jennifer Menges**

Email To: **Jennifer.Menges@stantec.com**

Project Description: Evergreen - PHL GWS

City/State Collected:

Phone: ~~267-240-3415~~ Fax: 610-425-8311

Client Project # 213402429

Lab Project # **SUNSTANTEC-PHL**

Collected by (print): Dane Hopkins

Site/Facility ID #

P.O. #

Collected by (signature): Dane

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1006118
D013

Acctnum: **SUNSTANTEC**
Template: **T137388**
Prelogin: **P659137**
TSR: **134 - Mark Beasley**
PB: 6-18-18

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Evergreen Short List - Various	Dissolved Pb (Lab) - 250ml plastic NP * lab filtered	VOCs/TBA - 3 - 40ml vials w/ HCL	V8260BTEX only - 3 - 40ml vials w/ HCL	MTBE/TBA only - 3 - 40ml vials w/ HCL	Remarks	Sample # (lab only)
TB_20180628	G	GW	—	6/28/18	—	1			X				-01
S-116SRTF_20180628	G	GW	10.0'	6/28/18	1020	9	X	X					-02
S-113SRTF_20180628	G	GW	13.0	6/28/18	1110	9	X	X					-03
S-115SRTF_20180628	G	GW	13.0'	6/28/18	1205	9	X	X					-04
S-114SRTF_20180628	G	GW	12.0'	6/28/18	1300	9	X	X					-05
S-39D-HS_20180628	G	GW	127'	6/28/18	0840	3					X		-06
S-39D_20180628	G	GW	127'	6/28/18	0933	3					X		-07
S-218D-HS_20180628	G	GW	91'	6/28/18	1015	3					X		-08
S-218D_20180628	G	GW	91'	6/28/18	1108	3					X		-09
S-154-HS_20180628	G	GW	10'	6/28/18	1250	9	X	X					-10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Various = 3 - 40ml vials w/ HCL, 3 - 40ml vials w/ NaThio, 2 - 40ml vials NP, and 1 - 250ml plastic NP
* EQuIS EDD Format
* refer to attached short list for analytes
* Standard TAT

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier X SWA

Tracking # N/A

Sample Receipt Checklist
COC Seal Present/Intact: __Y __NP __N
COC Signed/Accurate: X Y __N
Bottles arrive intact: X Y __N
Correct bottles used: X Y __N
Sufficient volume sent: X Y __N
If Applicable
VOA Zero Headspace: X __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Dane	6/28/18	1640	ESCPA lockout	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 0.7 °C Bottles Received: 84
ESCPA lockout	6/29/18	1205		If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/30/18 Time: 0922
				Hold:

Condition: NCF / OK

Stantec - S/E

1060 Andrew Drive, Suite 140
West Chester, PA 19380

Billing Information:
Accounts Payable
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Pres Chk

Report to: **Jennifer Menges**

Email To: **Jennifer.Menges@stantec.com**

Project Description: EVERGREEN - PHL GWS

City/State Collected:

Phone: ~~267-240-3415~~
Fax: 610-425-8311

Client Project # 213402429

Lab Project # **SUNSTANTEC-PHL**

Collected by (print): Karl McCarty IAN ANDREF

Site/Facility ID #

P.O. #

Collected by (signature): Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Evergreen Short List - Various	Dissolved Pb (Lab) - 250ml plastic NP * LAB FILTERED	VOCs/TBA - 3 - 40ml vials w/ HCL	V8260BTEX only - 3 - 40ml vials w/ HCL	MTBE/TBA only - 3 - 40ml vials w/ HCL	Remarks	Sample # (lab only)
S-154_20180628	G	GW	10'	6/29/18	1323	9	X	X					-11
S_271_20180628	G	GW	25'	6/28/18	830	3			X				-12
S-271_20180628	G	GW	25'	6/28/18	940	3			x				-13
S_396_20180628	G	GW	32'	6/28/18	1110	3			X				-14
S_396_HS_20180628	G	GW	32'	6/28/18	950	3			X				-15
S_418_HS_20180628	G	GW	25'	6/28/18	1200	3			X				-16
S_418_20180628	G	GW	25'	6/28/18	1335	3			X				-17
		GW											
		GW											
		GW											

Chain of Custody Page ___ of ___

ESC LABORATORY SCIENCES
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12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1006118

Table #

Acctnum: **SUNSTANTEC**

Template: **T137388**

Prelogin: **P659137**

TSR: **134 - Mark Beasley**

PB: 6-18-18

Shipped Via:

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:
Various = 3 - 40ml vials w/ HCL, 3 - 40ml vials w/ NaThio, 2 - 40ml vials NP, and 1 - 250ml plastic NP
* EQUIS EDD FORMAT
* REFER TO ATTACHED SHORTLIST FOR ANALYTES
* STANDARD TAT

pH ___ Temp ___ Flow ___ Other ___

Samples returned via: ___ UPS ___ FedEx ___ Courier X SWA

Tracking # N/A

Sample Receipt Checklist
COC Seal Present/Intact: NP ___Y ___N
COC Signed/Accurate: ___Y ___N
Bottles arrive intact: ___Y ___N
Correct bottles used: ___Y ___N
Sufficient volume sent: ___Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: (Yes) / No HCL / MeoH TBR	
	6/28/18	1640	ESCPA lockout		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 0.5 °C	Bottles Received: 84
ESCPA lockout	6/29/18	1205			If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/30/18	Time: 0922
				Hold:	Condition: NCF OK

L1006118

Table 1
Evergreen Petroleum Short List of Constituents of Concern

VOCs by EPA Method 8260	CAS No.
Benzene	71-43-2
Cumene	98-82-8
Dichloroethane, 1,2-	107-06-2
Ethylbenzene	100-41-4
Ethylene Dibromide*	106-93-4
Methyl tert butyl ether	1634-04-4
Toluene	108-88-3
Trimethylbenzene, 1,2,4-	95-63-6
Trimethylbenzene, 1,3,5-	108-67-8
Xylenes	1330-20-7

SVOCs by EPA Method 8270	CAS No.
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Chrysene	218-01-9
Fluorene	86-73-7
Naphthalene**	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Metals by Method 6010/6020	CAS No.
Lead***	7439-92-1

*Ethylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

**Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

***Metals analysis should be total in soil and dissolved in groundwater.

This list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline and No. 1, 2, 4, 5, 6 Fuel Oils).

Stantec

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

July 26, 2018

Stantec - S/E

Sample Delivery Group:	L1006569
Samples Received:	07/03/2018
Project Number:	
Description:	Evergreen PHL GWS

Report To: Jennifer Menges
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



TABLE OF CONTENTS

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 3

Cn: Case Narrative 5

Sr: Sample Results 6

- TB_20180629 L1006569-01 6
- S-276-20180629 L1006569-02 7
- S-277_20180629 L1006569-03 8
- RW-701_20180629 L1006569-04 9
- RW-701_HS_20180629 L1006569-05 10
- S-382_20180629 L1006569-06 11
- S-382_DUP_20180629 L1006569-07 12

Qc: Quality Control Summary 13

- Metals (ICPMS) by Method 6020 13
- Volatile Organic Compounds (GC/MS) by Method 8260B 14
- EDB / DBCP by Method 8011 23
- Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM 25

Gl: Glossary of Terms 26

Al: Accreditations & Locations 27

Sc: Sample Chain of Custody 28

TB_20180629 L1006569-01 GW

Collected by: Dane Hopkins | Collected date/time: 06/29/18 00:00 | Received date/time: 07/03/18 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134531	1	07/06/18 15:27	07/06/18 15:27	BMB

S-276-20180629 L1006569-02 GW

Collected by: Dane Hopkins | Collected date/time: 06/29/18 09:30 | Received date/time: 07/03/18 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134531	200	07/06/18 20:39	07/06/18 20:39	BMB
EDB / DBCP by Method 8011	WG1140686	1	07/20/18 08:51	07/21/18 03:52	ADF

S-277_20180629 L1006569-03 GW

Collected by: Dane Hopkins | Collected date/time: 06/29/18 10:40 | Received date/time: 07/03/18 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134531	50	07/06/18 20:58	07/06/18 20:58	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135067	5000	07/08/18 23:47	07/08/18 23:47	DWR
EDB / DBCP by Method 8011	WG1140686	1	07/20/18 08:51	07/21/18 04:05	ADF

RW-701_20180629 L1006569-04 GW

Collected by: Dane Hopkins | Collected date/time: 06/29/18 12:30 | Received date/time: 07/03/18 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1134555	1	07/09/18 14:17	07/10/18 02:29	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134887	200	07/07/18 17:18	07/07/18 17:18	RAS
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1138924	200	07/17/18 10:41	07/17/18 10:41	LRL
EDB / DBCP by Method 8011	WG1135246	.995	07/09/18 10:36	07/10/18 12:34	HMH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1134478	1.03	07/06/18 13:22	07/07/18 11:25	DMG
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1134478	20.6	07/06/18 13:22	07/07/18 18:23	KM

RW-701_HS_20180629 L1006569-05 GW

Collected by: Dane Hopkins | Collected date/time: 06/29/18 11:45 | Received date/time: 07/03/18 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1134555	1	07/09/18 14:17	07/10/18 02:33	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134887	200	07/07/18 17:40	07/07/18 17:40	RAS
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1138924	200	07/17/18 11:01	07/17/18 11:01	LRL
EDB / DBCP by Method 8011	WG1135246	.995	07/09/18 10:36	07/10/18 12:46	HMH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1134478	2	07/06/18 13:22	07/07/18 11:45	DMG

S-382_20180629 L1006569-06 GW

Collected by: Dane Hopkins | Collected date/time: 06/29/18 14:00 | Received date/time: 07/03/18 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134870	1000	07/07/18 21:40	07/07/18 21:40	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135097	25000	07/08/18 20:34	07/08/18 20:34	JCP

S-382_DUP_20180629 L1006569-07 GW

Collected by	Collected date/time	Received date/time
Dane Hopkins	06/29/18 14:00	07/03/18 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134564	500	07/06/18 18:46	07/06/18 18:46	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135141	5000	07/09/18 17:10	07/09/18 17:10	ACG

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Mark W. Beasley
Project Manager

Project Narrative

SV8011 was analyzed outside of the 14 day holding time due to lab error.

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	07/06/2018 15:27	WG1134531
1,2-Dichloroethane	ND		0.00100	1	07/06/2018 15:27	WG1134531
Ethylbenzene	ND		0.00100	1	07/06/2018 15:27	WG1134531
1,2-Dibromoethane	ND		0.00100	1	07/06/2018 15:27	WG1134531
Isopropylbenzene	ND		0.00100	1	07/06/2018 15:27	WG1134531
Toluene	ND		0.00100	1	07/06/2018 15:27	WG1134531
1,2,4-Trimethylbenzene	ND		0.00100	1	07/06/2018 15:27	WG1134531
1,3,5-Trimethylbenzene	ND		0.00100	1	07/06/2018 15:27	WG1134531
Xylenes, Total	ND		0.00300	1	07/06/2018 15:27	WG1134531
Methyl tert-butyl ether	ND		0.00100	1	07/06/2018 15:27	WG1134531
tert-Butyl alcohol	ND		0.00500	1	07/06/2018 15:27	WG1134531
(S) Toluene-d8	*97.8*		*80.0-120*		*07/06/2018 15:27*	WG1134531
(S) Dibromofluoromethane	*95.3*		*76.0-123*		*07/06/2018 15:27*	WG1134531
(S) 4-Bromofluorobenzene	*94.6*		*80.0-120*		*07/06/2018 15:27*	WG1134531

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	6.04		0.200	200	07/06/2018 20:39	WG1134531
1,2-Dichloroethane	ND		0.200	200	07/06/2018 20:39	WG1134531
Ethylbenzene	0.373		0.200	200	07/06/2018 20:39	WG1134531
Isopropylbenzene	ND		0.200	200	07/06/2018 20:39	WG1134531
Toluene	ND		0.200	200	07/06/2018 20:39	WG1134531
1,2,4-Trimethylbenzene	0.454		0.200	200	07/06/2018 20:39	WG1134531
1,3,5-Trimethylbenzene	0.243		0.200	200	07/06/2018 20:39	WG1134531
Xylenes, Total	1.50		0.600	200	07/06/2018 20:39	WG1134531
Methyl tert-butyl ether	ND		0.200	200	07/06/2018 20:39	WG1134531
tert-Butyl alcohol	ND		1.00	200	07/06/2018 20:39	WG1134531
(S) Toluene-d8	*101*		*80.0-120*		*07/06/2018 20:39*	WG1134531
(S) Dibromofluoromethane	*96.3*		*76.0-123*		*07/06/2018 20:39*	WG1134531
(S) 4-Bromofluorobenzene	*92.9*		*80.0-120*		*07/06/2018 20:39*	WG1134531

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND	T8	0.0000100	1	07/21/2018 03:52	WG1140686

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	4.02		0.0500	50	07/06/2018 20:58	WG1134531
1,2-Dichloroethane	ND		0.0500	50	07/06/2018 20:58	WG1134531
Ethylbenzene	0.139		0.0500	50	07/06/2018 20:58	WG1134531
Isopropylbenzene	ND		0.0500	50	07/06/2018 20:58	WG1134531
Toluene	1.05		0.0500	50	07/06/2018 20:58	WG1134531
1,2,4-Trimethylbenzene	0.614		0.0500	50	07/06/2018 20:58	WG1134531
1,3,5-Trimethylbenzene	0.323		0.0500	50	07/06/2018 20:58	WG1134531
Xylenes, Total	2.91		0.150	50	07/06/2018 20:58	WG1134531
Methyl tert-butyl ether	4.32		0.0500	50	07/06/2018 20:58	WG1134531
tert-Butyl alcohol	120		25.0	5000	07/08/2018 23:47	WG1135067
(S) Toluene-d8	*97.5*		*80.0-120*		*07/06/2018 20:58*	WG1134531
(S) Toluene-d8	*99.5*		*80.0-120*		*07/08/2018 23:47*	WG1135067
(S) Dibromofluoromethane	*95.8*		*76.0-123*		*07/06/2018 20:58*	WG1134531
(S) Dibromofluoromethane	*96.8*		*76.0-123*		*07/08/2018 23:47*	WG1135067
(S) 4-Bromofluorobenzene	*96.0*		*80.0-120*		*07/06/2018 20:58*	WG1134531
(S) 4-Bromofluorobenzene	*93.6*		*80.0-120*		*07/08/2018 23:47*	WG1135067

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND	T8	0.0000100	1	07/21/2018 04:05	WG1140686

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/10/2018 02:29	WG1134555

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	4.57		0.200	200	07/07/2018 17:18	WG1134887
Isopropylbenzene	ND		0.200	200	07/07/2018 17:18	WG1134887
1,2-Dichloroethane	ND		0.200	200	07/07/2018 17:18	WG1134887
Ethylbenzene	0.554		0.200	200	07/07/2018 17:18	WG1134887
Methyl tert-butyl ether	ND		0.200	200	07/07/2018 17:18	WG1134887
Toluene	2.12		0.200	200	07/07/2018 17:18	WG1134887
1,2,4-Trimethylbenzene	0.615		0.200	200	07/07/2018 17:18	WG1134887
1,3,5-Trimethylbenzene	0.201		0.200	200	07/07/2018 17:18	WG1134887
Xylenes, Total	3.58		0.600	200	07/07/2018 17:18	WG1134887
tert-Butyl alcohol	ND	T8	1.00	200	07/17/2018 10:41	WG1138924
(S) Toluene-d8	*103*		*80.0-120*		*07/07/2018 17:18*	WG1134887
(S) Toluene-d8	*97.3*		*80.0-120*		*07/17/2018 10:41*	WG1138924
(S) Dibromofluoromethane	*96.3*		*76.0-123*		*07/07/2018 17:18*	WG1134887
(S) Dibromofluoromethane	*100*		*76.0-123*		*07/17/2018 10:41*	WG1138924
(S) 4-Bromofluorobenzene	*91.0*		*80.0-120*		*07/07/2018 17:18*	WG1134887
(S) 4-Bromofluorobenzene	*91.6*		*80.0-120*		*07/17/2018 10:41*	WG1138924

Sample Narrative:

L1006569-04 WG1138924: Target and Non-target compounds too high to run at a lower dilution.

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.995	07/10/2018 12:34	WG1135246

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.0306		0.0000515	1.03	07/07/2018 11:25	WG1134478
Benzo(a)anthracene	0.0000935		0.0000515	1.03	07/07/2018 11:25	WG1134478
Benzo(a)pyrene	ND		0.0000515	1.03	07/07/2018 11:25	WG1134478
Benzo(b)fluoranthene	ND		0.0000515	1.03	07/07/2018 11:25	WG1134478
Benzo(g,h,i)perylene	ND		0.0000515	1.03	07/07/2018 11:25	WG1134478
Chrysene	0.000149		0.0000515	1.03	07/07/2018 11:25	WG1134478
Fluorene	0.0487		0.00103	20.6	07/07/2018 18:23	WG1134478
Naphthalene	0.271		0.00515	20.6	07/07/2018 18:23	WG1134478
Phenanthrene	0.126		0.00103	20.6	07/07/2018 18:23	WG1134478
Pyrene	0.00699		0.0000515	1.03	07/07/2018 11:25	WG1134478
(S) Nitrobenzene-d5	*335*	J1	*31.0-160*		*07/07/2018 11:25*	WG1134478
(S) Nitrobenzene-d5	*6.21*	J7	*31.0-160*		*07/07/2018 18:23*	WG1134478
(S) 2-Fluorobiphenyl	*8.94*	J7	*48.0-148*		*07/07/2018 18:23*	WG1134478
(S) 2-Fluorobiphenyl	*75.6*		*48.0-148*		*07/07/2018 11:25*	WG1134478
(S) p-Terphenyl-d14	*5.62*	J7	*37.0-146*		*07/07/2018 18:23*	WG1134478
(S) p-Terphenyl-d14	*95.1*		*37.0-146*		*07/07/2018 11:25*	WG1134478

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/10/2018 02:33	WG1134555

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	4.25		0.200	200	07/07/2018 17:40	WG1134887
Isopropylbenzene	ND		0.200	200	07/07/2018 17:40	WG1134887
1,2-Dichloroethane	ND		0.200	200	07/07/2018 17:40	WG1134887
Ethylbenzene	0.489		0.200	200	07/07/2018 17:40	WG1134887
Methyl tert-butyl ether	ND		0.200	200	07/07/2018 17:40	WG1134887
Toluene	1.38		0.200	200	07/07/2018 17:40	WG1134887
1,2,4-Trimethylbenzene	0.515		0.200	200	07/07/2018 17:40	WG1134887
1,3,5-Trimethylbenzene	ND		0.200	200	07/07/2018 17:40	WG1134887
Xylenes, Total	3.16		0.600	200	07/07/2018 17:40	WG1134887
tert-Butyl alcohol	ND	T8	1.00	200	07/17/2018 11:01	WG1138924
(S) Toluene-d8	*101*		*80.0-120*		*07/07/2018 17:40*	WG1134887
(S) Toluene-d8	*99.8*		*80.0-120*		*07/17/2018 11:01*	WG1138924
(S) Dibromofluoromethane	*95.9*		*76.0-123*		*07/07/2018 17:40*	WG1134887
(S) Dibromofluoromethane	*100*		*76.0-123*		*07/17/2018 11:01*	WG1138924
(S) 4-Bromofluorobenzene	*93.5*		*80.0-120*		*07/07/2018 17:40*	WG1134887
(S) 4-Bromofluorobenzene	*91.1*		*80.0-120*		*07/17/2018 11:01*	WG1138924

Sample Narrative:

L1006569-05 WG1138924: Target and Non-target compounds too high to run at a lower dilution.

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.995	07/10/2018 12:46	WG1135246

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.000100	2	07/07/2018 11:45	WG1134478
Benzo(a)anthracene	ND		0.000100	2	07/07/2018 11:45	WG1134478
Benzo(a)pyrene	ND		0.000100	2	07/07/2018 11:45	WG1134478
Benzo(b)fluoranthene	ND		0.000100	2	07/07/2018 11:45	WG1134478
Benzo(g,h,i)perylene	ND		0.000100	2	07/07/2018 11:45	WG1134478
Chrysene	ND		0.000100	2	07/07/2018 11:45	WG1134478
Fluorene	0.000372		0.000100	2	07/07/2018 11:45	WG1134478
Naphthalene	0.0127		0.000500	2	07/07/2018 11:45	WG1134478
Phenanthrene	0.000560		0.000100	2	07/07/2018 11:45	WG1134478
Pyrene	0.000169		0.000100	2	07/07/2018 11:45	WG1134478
(S) Nitrobenzene-d5	*181*	J1	*31.0-160*		*07/07/2018 11:45*	WG1134478
(S) 2-Fluorobiphenyl	*84.4*		*48.0-148*		*07/07/2018 11:45*	WG1134478
(S) p-Terphenyl-d14	*79.4*		*37.0-146*		*07/07/2018 11:45*	WG1134478

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	478		25.0	25000	07/08/2018 20:34	WG1135097
Toluene	75.7		1.00	1000	07/07/2018 21:40	WG1134870
Ethylbenzene	ND		1.00	1000	07/07/2018 21:40	WG1134870
Total Xylenes	ND		3.00	1000	07/07/2018 21:40	WG1134870
(S) Toluene-d8	*109*		*80.0-120*		*07/07/2018 21:40*	WG1134870
(S) Toluene-d8	*106*		*80.0-120*		*07/08/2018 20:34*	WG1135097
(S) Dibromofluoromethane	*84.8*		*76.0-123*		*07/07/2018 21:40*	WG1134870
(S) Dibromofluoromethane	*96.4*		*76.0-123*		*07/08/2018 20:34*	WG1135097
(S) a,a,a-Trifluorotoluene	*97.7*		*80.0-120*		*07/07/2018 21:40*	WG1134870
(S) a,a,a-Trifluorotoluene	*107*		*80.0-120*		*07/08/2018 20:34*	WG1135097
(S) 4-Bromofluorobenzene	*88.0*		*80.0-120*		*07/07/2018 21:40*	WG1134870
(S) 4-Bromofluorobenzene	*99.2*		*80.0-120*		*07/08/2018 20:34*	WG1135097

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	515		5.00	5000	07/09/2018 17:10	WG1135141
Toluene	70.7		0.500	500	07/06/2018 18:46	WG1134564
Ethylbenzene	ND		0.500	500	07/06/2018 18:46	WG1134564
Total Xylenes	ND		1.50	500	07/06/2018 18:46	WG1134564
(S) Toluene-d8	*109*		*80.0-120*		*07/06/2018 18:46*	WG1134564
(S) Toluene-d8	*104*		*80.0-120*		*07/09/2018 17:10*	WG1135141
(S) Dibromofluoromethane	*82.7*		*76.0-123*		*07/06/2018 18:46*	WG1134564
(S) Dibromofluoromethane	*88.3*		*76.0-123*		*07/09/2018 17:10*	WG1135141
(S) a,a,a-Trifluorotoluene	*99.4*		*80.0-120*		*07/06/2018 18:46*	WG1134564
(S) a,a,a-Trifluorotoluene	*105*		*80.0-120*		*07/09/2018 17:10*	WG1135141
(S) 4-Bromofluorobenzene	*88.2*		*80.0-120*		*07/06/2018 18:46*	WG1134564
(S) 4-Bromofluorobenzene	*90.5*		*80.0-120*		*07/09/2018 17:10*	WG1135141

Method Blank (MB)

(MB) R3324217-1 07/10/18 00:19

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Lead,Dissolved	U		0.000240	0.00200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324217-2 07/10/18 00:23 • (LCSD) R3324217-3 07/10/18 00:27

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
Lead,Dissolved	0.0500	0.0477	0.0474	95.4	94.8	80.0-120			0.633	20

L1006563-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1006563-05 07/10/18 00:31 • (MS) R3324217-5 07/10/18 00:39 • (MSD) R3324217-6 07/10/18 00:44

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Lead,Dissolved	0.0500	ND	0.0467	0.0478	93.3	95.6	1	75.0-125			2.40	20

Method Blank (MB)

(MB) R3323833-4 07/06/18 13:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dibromoethane	U		0.000381	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
tert-Butyl alcohol	U		0.00240	0.00500
(S) Toluene-d8	*98.8*			*80.0-120*
(S) Dibromofluoromethane	*94.7*			*76.0-123*
(S) 4-Bromofluorobenzene	*92.7*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323833-1 07/06/18 12:21 • (LCSD) R3323833-2 07/06/18 12:41

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0232	0.0229	92.8	91.4	69.0-123			1.52	20
1,2-Dibromoethane	0.0250	0.0234	0.0234	93.7	93.8	77.0-123			0.0592	20
1,2-Dichloroethane	0.0250	0.0241	0.0240	96.5	96.1	67.0-126			0.423	20
Ethylbenzene	0.0250	0.0238	0.0237	95.0	94.7	77.0-120			0.359	20
Isopropylbenzene	0.0250	0.0235	0.0229	93.9	91.4	75.0-120			2.70	20
Methyl tert-butyl ether	0.0250	0.0225	0.0221	90.0	88.5	64.0-123			1.71	20
Toluene	0.0250	0.0235	0.0232	94.0	92.7	77.0-120			1.39	20
1,2,4-Trimethylbenzene	0.0250	0.0234	0.0227	93.4	91.0	75.0-120			2.64	20
1,3,5-Trimethylbenzene	0.0250	0.0237	0.0231	94.9	92.3	75.0-120			2.76	20
Xylenes, Total	0.0750	0.0717	0.0713	95.6	95.1	77.0-120			0.559	20
(S) Toluene-d8				*97.7*	*96.3*	*80.0-120*				
(S) Dibromofluoromethane				*96.7*	*96.3*	*76.0-123*				
(S) 4-Bromofluorobenzene				*93.6*	*92.1*	*80.0-120*				

Laboratory Control Sample (LCS)

(LCS) R3323833-3 07/06/18 13:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
tert-Butyl alcohol	0.0500	0.0489	97.8	50.0-150	
(S) Toluene-d8			*96.7*	*80.0-120*	
(S) Dibromofluoromethane			*96.8*	*76.0-123*	
(S) 4-Bromofluorobenzene			*93.4*	*80.0-120*	

Method Blank (MB)

(MB) R3323881-3 07/06/18 14:35

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylbenzene	U		0.000384	0.00100
Toluene	U		0.000412	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*108*			*80.0-120*
(S) Dibromofluoromethane	*95.7*			*76.0-123*
(S) a,a,a-Trifluorotoluene	*99.1*			*80.0-120*
(S) 4-Bromofluorobenzene	*88.0*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323881-1 07/06/18 13:33 • (LCSD) R3323881-2 07/06/18 13:54

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	0.0250	0.0259	0.0246	104	98.4	77.0-120			5.25	20
Toluene	0.0250	0.0263	0.0251	105	100	77.0-120			4.69	20
Xylenes, Total	0.0750	0.0776	0.0742	103	98.9	77.0-120			4.48	20
(S) Toluene-d8				*110*	*108*	*80.0-120*				
(S) Dibromofluoromethane				*90.0*	*91.5*	*76.0-123*				
(S) a,a,a-Trifluorotoluene				*98.7*	*98.1*	*80.0-120*				
(S) 4-Bromofluorobenzene				*90.0*	*94.1*	*80.0-120*				

Method Blank (MB)

(MB) R3323847-2 07/07/18 11:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylbenzene	U		0.000384	0.00100
Toluene	U		0.000412	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*108*			*80.0-120*
(S) Dibromofluoromethane	*94.6*			*76.0-123*
(S) a,a,a-Trifluorotoluene	*99.2*			*80.0-120*
(S) 4-Bromofluorobenzene	*86.6*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323847-1 07/07/18 11:18 • (LCSD) R3323847-3 07/07/18 12:32

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	0.0250	0.0269	0.0242	108	96.9	77.0-120			10.5	20
Toluene	0.0250	0.0266	0.0246	106	98.2	77.0-120			7.83	20
Xylenes, Total	0.0750	0.0789	0.0733	105	97.7	77.0-120			7.36	20
(S) Toluene-d8				*108*	*108*	*80.0-120*				
(S) Dibromofluoromethane				*90.5*	*91.6*	*76.0-123*				
(S) a,a,a-Trifluorotoluene				*99.8*	*100*	*80.0-120*				
(S) 4-Bromofluorobenzene				*91.9*	*93.1*	*80.0-120*				

Method Blank (MB)

(MB) R3324148-2 07/07/18 14:03

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*103*			*80.0-120*
(S) Dibromofluoromethane	*94.7*			*76.0-123*
(S) 4-Bromofluorobenzene	*93.9*			*80.0-120*

Laboratory Control Sample (LCS)

(LCS) R3324148-1 07/07/18 12:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0250	0.0202	80.9	69.0-123	
1,2-Dichloroethane	0.0250	0.0204	81.7	67.0-126	
Ethylbenzene	0.0250	0.0250	100	77.0-120	
Isopropylbenzene	0.0250	0.0237	95.0	75.0-120	
Methyl tert-butyl ether	0.0250	0.0210	84.1	64.0-123	
Toluene	0.0250	0.0232	92.9	77.0-120	
1,2,4-Trimethylbenzene	0.0250	0.0232	92.7	75.0-120	
1,3,5-Trimethylbenzene	0.0250	0.0235	93.9	75.0-120	
Xylenes, Total	0.0750	0.0753	100	77.0-120	
(S) Toluene-d8			*104*	*80.0-120*	
(S) Dibromofluoromethane			*94.9*	*76.0-123*	
(S) 4-Bromofluorobenzene			*92.3*	*80.0-120*	

Method Blank (MB)

(MB) R3324000-4 07/08/18 14:49

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
tert-Butyl alcohol	U		0.00240	0.00500
(S) Toluene-d8	*101*			*80.0-120*
(S) Dibromofluoromethane	*96.5*			*76.0-123*
(S) 4-Bromofluorobenzene	*92.9*			*80.0-120*

Laboratory Control Sample (LCS)

(LCS) R3324000-3 07/08/18 14:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
tert-Butyl alcohol	0.0500	0.0527	105	50.0-150	
(S) Toluene-d8			*98.6*	*80.0-120*	
(S) Dibromofluoromethane			*98.1*	*76.0-123*	
(S) 4-Bromofluorobenzene			*93.6*	*80.0-120*	

Method Blank (MB)

(MB) R3324174-2 07/08/18 11:43

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
(S) Toluene-d8	*105*			*80.0-120*
(S) Dibromofluoromethane	*98.8*			*76.0-123*
(S) a,a,a-Trifluorotoluene	*107*			*80.0-120*
(S) 4-Bromofluorobenzene	*98.2*			*80.0-120*

Laboratory Control Sample (LCS)

(LCS) R3324174-1 07/08/18 10:22

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0250	0.0242	96.6	69.0-123	
(S) Toluene-d8			*104*	*80.0-120*	
(S) Dibromofluoromethane			*98.0*	*76.0-123*	
(S) a,a,a-Trifluorotoluene			*104*	*80.0-120*	
(S) 4-Bromofluorobenzene			*96.5*	*80.0-120*	

Method Blank (MB)

(MB) R3324103-3 07/09/18 11:23

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
(S) Toluene-d8	*104*			*80.0-120*
(S) Dibromofluoromethane	*90.6*			*76.0-123*
(S) a,a,a-Trifluorotoluene	*104*			*80.0-120*
(S) 4-Bromofluorobenzene	*90.0*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324103-1 07/09/18 09:35 • (LCSD) R3324103-2 07/09/18 09:57

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0205	0.0208	82.2	83.3	69.0-123			1.40	20
(S) Toluene-d8				*102*	*103*	*80.0-120*				
(S) Dibromofluoromethane				*90.3*	*89.9*	*76.0-123*				
(S) a,a,a-Trifluorotoluene				*105*	*104*	*80.0-120*				
(S) 4-Bromofluorobenzene				*90.1*	*88.4*	*80.0-120*				

Method Blank (MB)

(MB) R3326107-4 07/17/18 10:21

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
tert-Butyl alcohol	U		0.00240	0.00500
(S) Toluene-d8	*100*			*80.0-120*
(S) Dibromofluoromethane	*98.6*			*76.0-123*
(S) 4-Bromofluorobenzene	*92.9*			*80.0-120*

Laboratory Control Sample (LCS)

(LCS) R3326107-3 07/17/18 09:43

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
tert-Butyl alcohol	0.0500	0.0536	107	50.0-150	
(S) Toluene-d8			*98.7*	*80.0-120*	
(S) Dibromofluoromethane			*98.9*	*76.0-123*	
(S) 4-Bromofluorobenzene			*91.8*	*80.0-120*	

Method Blank (MB)

(MB) R3324568-1 07/10/18 08:25

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

Method Blank (MB)

(MB) R3325015-1 07/12/18 00:07

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1006645-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1006645-07 07/10/18 09:15 • (DUP) R3324568-3 07/10/18 09:02

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	ND	0.000	1			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324568-4 07/10/18 11:56 • (LCSD) R3324568-5 07/10/18 14:25

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000236	0.000241	94.4	96.4	60.0-140			2.10	20

L1006151-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1006151-01 07/10/18 08:50 • (MS) R3324568-2 07/10/18 08:37

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.0000995	U	0.0000980	98.5	.995	72.0-146	

Method Blank (MB)

(MB) R3327677-1 07/20/18 23:57

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1009704-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1009704-01 07/21/18 00:47 • (DUP) R3327677-3 07/21/18 00:34

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	U	0.000	1			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3327677-4 07/21/18 02:50 • (LCSD) R3327677-5 07/21/18 05:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000239	0.000229	95.6	91.6	60.0-140			4.27	20

L1009704-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1009704-03 07/21/18 00:22 • (MS) R3327677-2 07/21/18 00:10

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.0000998	U	0.0000955	95.7	1	72.0-146	

Method Blank (MB)

(MB) R3323796-3 07/07/18 08:31

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Chrysene	U		0.0000108	0.0000500
Fluorene	U		0.00000850	0.0000500
Naphthalene	U		0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
(S) Nitrobenzene-d5	*121*			*31.0-160*
(S) 2-Fluorobiphenyl	*90.3*			*48.0-148*
(S) p-Terphenyl-d14	*107*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323796-1 07/07/18 07:50 • (LCSD) R3323796-2 07/07/18 08:10

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00215	0.00212	108	106	64.0-142			1.79	20
Benzo(a)anthracene	0.00200	0.00222	0.00218	111	109	59.0-134			1.46	20
Benzo(a)pyrene	0.00200	0.00208	0.00211	104	106	61.0-145			1.56	20
Benzo(b)fluoranthene	0.00200	0.00198	0.00208	98.9	104	57.0-136			4.82	20
Benzo(g,h,i)perylene	0.00200	0.00190	0.00195	95.1	97.6	54.0-140			2.52	20
Chrysene	0.00200	0.00208	0.00210	104	105	63.0-140			0.721	20
Fluorene	0.00200	0.00204	0.00199	102	99.7	64.0-129			2.09	20
Naphthalene	0.00200	0.00163	0.00162	81.5	81.1	68.0-129			0.475	20
Phenanthrene	0.00200	0.00207	0.00205	104	102	62.0-132			1.19	20
Pyrene	0.00200	0.00216	0.00208	108	104	58.0-156			4.05	20
(S) Nitrobenzene-d5				*120*	*119*	*31.0-160*				
(S) 2-Fluorobiphenyl				*90.6*	*87.1*	*48.0-148*				
(S) p-Terphenyl-d14				*112*	*102*	*37.0-146*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
T8	Sample(s) received past/too close to holding time expiration.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

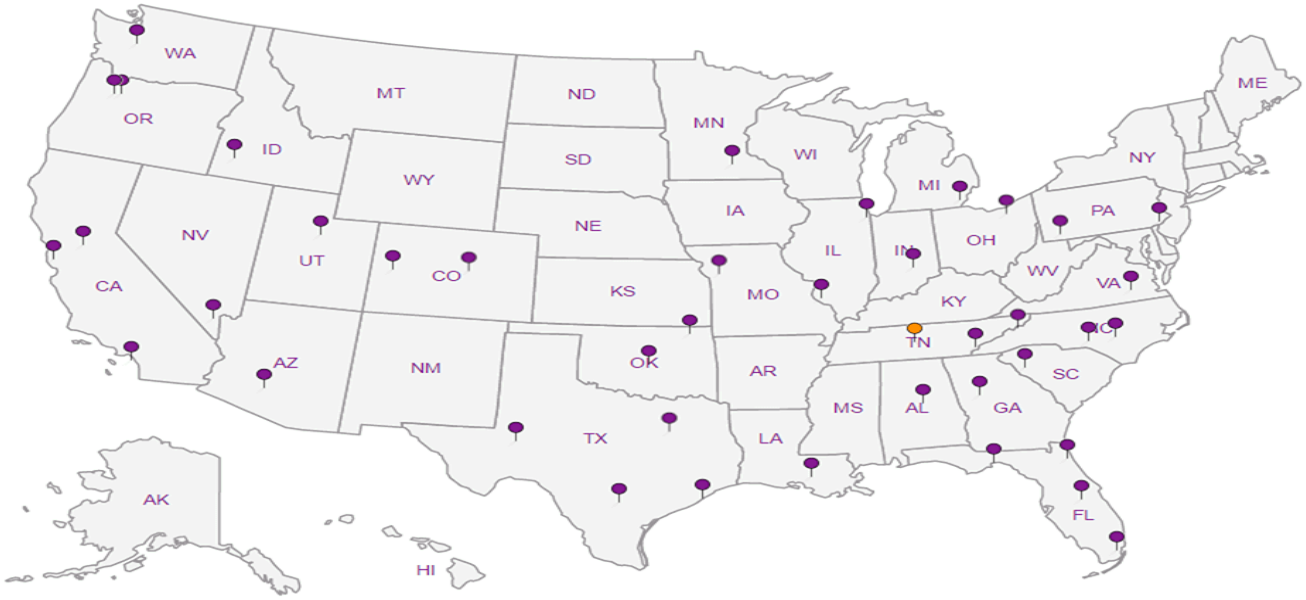
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Stantec - S/E

1060 Andrew Drive, Suite 140
West Chester, PA 19380

Billing Information:
Accounts Payable
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Pres Chk

Report to: **Jennifer Menges**

Email To: **Jennifer.Menges@stantec.com**

Project Description: Evergreen-PHL GWS

City/State Collected:

Phone: ~~267-240-3415~~

Fax: 610-425-8311

Client Project #

Lab Project # **SUNSTANTEC-PHL**

Collected by (print): Dane Hopkins

Site/Facility ID #

P.O. #

Collected by (signature): Dane

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: Standard

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Evergreen Short List - Various	Dissolved Pb (Lab) - 250ml plastic NP (Lab Filtered)	VOCs/TBA - 3 - 40ml vials w/ HCL	V8260BTEX only - 3 - 40ml vials w/ HCL	MTBE/TBA only - 3 - 40ml vials w/ HCL	Remarks	Sample # (lab only)
TB-20180629	G	GW	—	6/29/18	—	1			X				01
S-276-20180629	G	GW	26'	6/29/18	0930	3			X				02
S-277-20180629	G	GW	26'	6/29/18	1040	3			X				03
RW-701-20180629	G	GW	20'	6/29/18	1230	9	X	X	X				04
RW-701-HS-20180629	G	GW	20	6/29/18	1145	9	X	X	X				05
S-382-20180629	G	GW	22'	6/29/18	1400	3				X			06
S-382DUP-20180629	G	GW	22'	6/29/18	1400	3				X			07
		GW											
		GW											
		GW											

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Various = 3 - 40ml vials w/ HCL, 3 - 40ml vials w/ NaThio, 2 - 40ml vials NP, and 1 - 250ml plastic NP

*EQuIS EDD format
*refer to attached short list for analytes
*Standard TAT

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Chain of Custody Page ___ of ___

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1006569

Table #

Acctnum: **SUNSTANTEC**

Template: **T137388**

Prelogin: **P659137**

TSR: **134 - Mark Beasley**

PB: 6-18-18

Shipped Via:

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Dane	6/29/18	1700	ESCPA lockout
ESCPA lockout	7/2/18	9:30	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 27 °C Bottles Received: 78

Date: 7/3/18 Time: 1020

If preservation required by Login: Date/Time

Hold:

Condition: NCF OK

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

November 21, 2018

Aquaterra Technologies, Inc. - S/E

Sample Delivery Group:	L1044397
Samples Received:	11/14/2018
Project Number:	
Description:	AOI-4

Report To: Michael Sarcinello
122 South Church St.
West Chester, PA 19382

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



TABLE OF CONTENTS

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 3

Cn: Case Narrative 4

Sr: Sample Results 5

S-377-20181112-WG L1044397-01 5

S-378-20181112-WG L1044397-02 6

Qc: Quality Control Summary 7

Volatile Organic Compounds (GC/MS) by Method 8260B 7

Gl: Glossary of Terms 10

Al: Accreditations & Locations 11

Sc: Sample Chain of Custody 12

S-377-20181112-WG L1044397-01 GW

			Collected by	Collected date/time	Received date/time
				11/12/18 00:00	11/14/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1197706	1	11/16/18 13:17	11/16/18 13:17	TJJ
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1198981	10	11/19/18 23:21	11/19/18 23:21	JHH

S-378-20181112-WG L1044397-02 GW

			Collected by	Collected date/time	Received date/time
				11/12/18 00:00	11/14/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1198981	10	11/19/18 23:40	11/19/18 23:40	JHH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1199481	50	11/20/18 19:04	11/20/18 19:04	DWR

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Mark W. Beasley
Project Manager

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	966		10.0	10	11/19/2018 23:21	WG1198981
1,2-Dichloroethane	ND		1.00	1	11/16/2018 13:17	WG1197706
1,2-Dibromoethane	ND		1.00	1	11/16/2018 13:17	WG1197706
Ethylbenzene	290		10.0	10	11/19/2018 23:21	WG1198981
Isopropylbenzene	41.8		1.00	1	11/16/2018 13:17	WG1197706
Methyl tert-butyl ether	ND		1.00	1	11/16/2018 13:17	WG1197706
Toluene	267		10.0	10	11/19/2018 23:21	WG1198981
1,2,4-Trimethylbenzene	405		10.0	10	11/19/2018 23:21	WG1198981
1,3,5-Trimethylbenzene	194		1.00	1	11/16/2018 13:17	WG1197706
Xylenes, Total	873		30.0	10	11/19/2018 23:21	WG1198981
(S) Toluene-d8	*76.8*	J2	*80.0-120*		*11/16/2018 13:17*	WG1197706
(S) Toluene-d8	*91.5*		*80.0-120*		*11/19/2018 23:21*	WG1198981
(S) Dibromofluoromethane	*65.0*	J2	*75.0-120*		*11/16/2018 13:17*	WG1197706
(S) Dibromofluoromethane	*101*		*75.0-120*		*11/19/2018 23:21*	WG1198981
(S) 4-Bromofluorobenzene	*92.7*		*77.0-126*		*11/16/2018 13:17*	WG1197706
(S) 4-Bromofluorobenzene	*101*		*77.0-126*		*11/19/2018 23:21*	WG1198981

Sample Narrative:

L1044397-01 WG1197706: Surrogates fail due to matrix interference.

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	1890		50.0	50	11/20/2018 19:04	WG1199481
1,2-Dichloroethane	ND		10.0	10	11/19/2018 23:40	WG1198981
1,2-Dibromoethane	ND		10.0	10	11/19/2018 23:40	WG1198981
Ethylbenzene	1040		10.0	10	11/19/2018 23:40	WG1198981
Isopropylbenzene	57.0		10.0	10	11/19/2018 23:40	WG1198981
Methyl tert-butyl ether	10.6		10.0	10	11/19/2018 23:40	WG1198981
Toluene	504		10.0	10	11/19/2018 23:40	WG1198981
1,2,4-Trimethylbenzene	898		10.0	10	11/19/2018 23:40	WG1198981
1,3,5-Trimethylbenzene	337		10.0	10	11/19/2018 23:40	WG1198981
Xylenes, Total	1520		30.0	10	11/19/2018 23:40	WG1198981
(S) Toluene-d8	*95.2*		*80.0-120*		*11/19/2018 23:40*	WG1198981
(S) Toluene-d8	*100*		*80.0-120*		*11/20/2018 19:04*	WG1199481
(S) Dibromofluoromethane	*102*		*75.0-120*		*11/19/2018 23:40*	WG1198981
(S) Dibromofluoromethane	*101*		*75.0-120*		*11/20/2018 19:04*	WG1199481
(S) 4-Bromofluorobenzene	*97.5*		*77.0-126*		*11/19/2018 23:40*	WG1198981
(S) 4-Bromofluorobenzene	*100*		*77.0-126*		*11/20/2018 19:04*	WG1199481

Method Blank (MB)

(MB) R3361182-3 11/16/18 10:06

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
1,2-Dibromoethane	U		0.381	1.00
1,2-Dichloroethane	U		0.361	1.00
Isopropylbenzene	U		0.326	1.00
Methyl tert-butyl ether	U		0.367	1.00
1,3,5-Trimethylbenzene	U		0.387	1.00
(S) Toluene-d8	*104*			*80.0-120*
(S) Dibromofluoromethane	*88.1*			*75.0-120*
(S) 4-Bromofluorobenzene	*95.3*			*77.0-126*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3361182-1 11/16/18 09:04 • (LCSD) R3361182-2 11/16/18 09:25

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,2-Dibromoethane	25.0	25.1	25.4	100	102	80.0-122			1.47	20
1,2-Dichloroethane	25.0	22.8	22.9	91.4	91.4	70.0-128			0.0570	20
Isopropylbenzene	25.0	21.0	21.9	84.1	87.7	76.0-127			4.22	20
Methyl tert-butyl ether	25.0	23.5	23.2	93.8	93.0	68.0-125			0.910	20
1,3,5-Trimethylbenzene	25.0	20.9	21.4	83.5	85.7	76.0-122			2.66	20
(S) Toluene-d8				*95.7*	*100*	*80.0-120*				
(S) Dibromofluoromethane				*91.0*	*92.4*	*75.0-120*				
(S) 4-Bromofluorobenzene				*92.9*	*95.3*	*77.0-126*				

Method Blank (MB)

(MB) R3361524-3 11/19/18 14:34

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.331	1.00
1,2-Dibromoethane	U		0.381	1.00
1,2-Dichloroethane	U		0.361	1.00
Ethylbenzene	U		0.384	1.00
Isopropylbenzene	U		0.326	1.00
Methyl tert-butyl ether	U		0.367	1.00
Toluene	U		0.412	1.00
1,2,4-Trimethylbenzene	U		0.373	1.00
1,3,5-Trimethylbenzene	U		0.387	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	*94.7*			*80.0-120*
(S) Dibromofluoromethane	*100*			*75.0-120*
(S) 4-Bromofluorobenzene	*96.5*			*77.0-126*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3361524-1 11/19/18 13:18 • (LCSD) R3361524-2 11/19/18 13:37

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	25.0	27.0	26.9	108	108	70.0-123			0.370	20
1,2-Dibromoethane	25.0	26.1	26.1	104	104	80.0-122			0.141	20
1,2-Dichloroethane	25.0	28.7	27.6	115	110	70.0-128			3.94	20
Ethylbenzene	25.0	26.0	26.3	104	105	79.0-123			0.957	20
Isopropylbenzene	25.0	26.4	26.6	106	106	76.0-127			0.736	20
Methyl tert-butyl ether	25.0	26.3	26.2	105	105	68.0-125			0.496	20
Toluene	25.0	25.2	25.7	101	103	79.0-120			2.14	20
1,2,4-Trimethylbenzene	25.0	27.1	26.8	109	107	76.0-121			1.25	20
1,3,5-Trimethylbenzene	25.0	26.3	26.0	105	104	76.0-122			1.22	20
Xylenes, Total	75.0	79.4	80.1	106	107	79.0-123			0.878	20
(S) Toluene-d8				*94.4*	*98.2*	*80.0-120*				
(S) Dibromofluoromethane				*101*	*99.3*	*75.0-120*				
(S) 4-Bromofluorobenzene				*99.2*	*98.4*	*77.0-126*				

Method Blank (MB)

(MB) R3361853-3 11/20/18 15:24

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.331	1.00
(S) Toluene-d8	*103*			*80.0-120*
(S) Dibromofluoromethane	*98.5*			*75.0-120*
(S) 4-Bromofluorobenzene	*98.0*			*77.0-126*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3361853-1 11/20/18 14:24 • (LCSD) R3361853-2 11/20/18 14:44

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	25.0	22.9	22.7	91.6	90.9	70.0-123			0.742	20
(S) Toluene-d8				*99.8*	*103*	*80.0-120*				
(S) Dibromofluoromethane				*98.2*	*99.8*	*75.0-120*				
(S) 4-Bromofluorobenzene				*98.0*	*99.9*	*77.0-126*				

L1045571-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1045571-01 11/20/18 23:05 • (MS) R3361853-4 11/20/18 23:25 • (MSD) R3361853-5 11/20/18 23:45

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	25.0	ND	12.0	11.3	48.2	45.3	1	17.0-158			6.12	27
(S) Toluene-d8					*102*	*105*		*80.0-120*				
(S) Dibromofluoromethane					*97.7*	*96.0*		*75.0-120*				
(S) 4-Bromofluorobenzene					*104*	*100*		*77.0-126*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
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State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

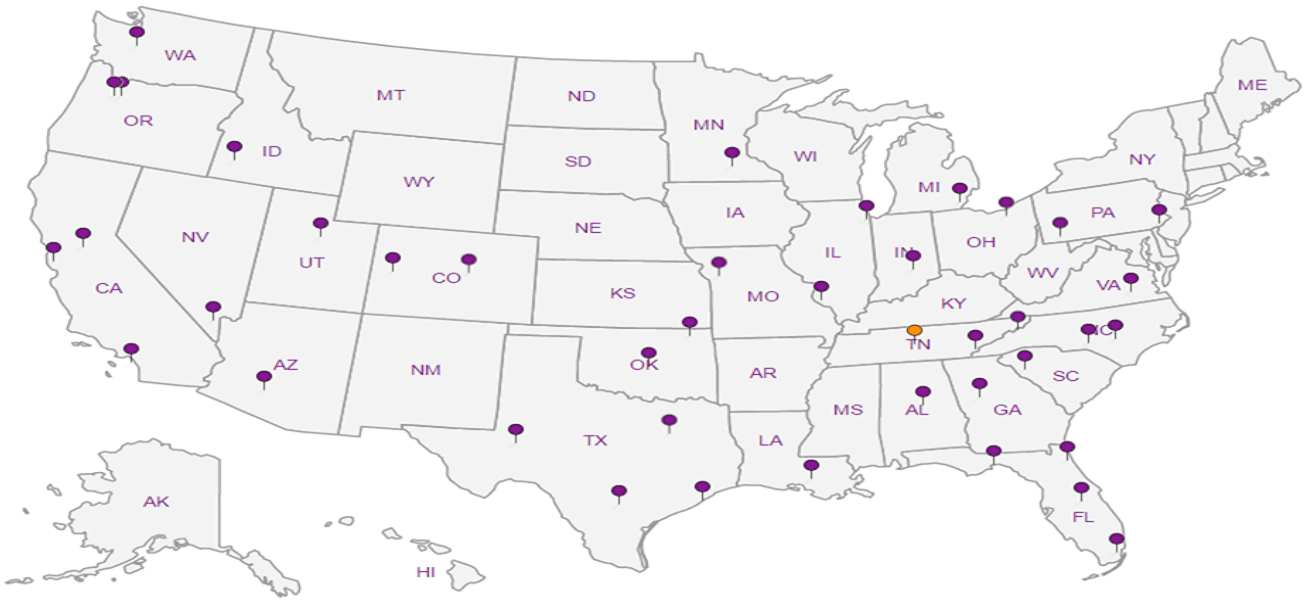
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Pace Analytical
www.pacelabs.com
220 William Pitt Way
Pittsburgh, PA 15238
412-826-5245

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

F179

Page: of

013453

Section A Required Client Information:
Company: Aquatera Tech.
Address: 120 S Church St West Chester, PA
Email To: MS@Aquatech-tek.com
Phone: 484-488-8817 Fax:
Requested Due Date/TAT:

Section B Required Project Information:
Report To: Mike Sacciello
Copy To:
Purchase Order No.:
Project Name: Philly Refinery Aq14 Pace Outside Labs
Project Number:

Section C Invoice Information:
Attention:
Company Name: Aquatera
Address: 120 S Church St West Chester, PA
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY
NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE:

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information: SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	Matrix Codes MATRIX / CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	TSP	BAK	Zinc Acetate & NaOH	Other	Analysis Test Y/N	Energy Savings Analysis	CSIA-CH	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	S-203-20181112-WG	WT	G				11/12			6				X						X	X		L1044397 -01
2	S-377-20181112-WG	WT	G				11/12			6				X						X	X		-02
3	S-378-20181112-WG	WT	G				11/12			6				X						X	X		-03
4	RW-703-20181112-WG	WT	G				11/12			6				X						X	X		-04
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Jason Milowicki	11/12/18	1504	Aquatera Refrigerator	11/12/18	1504	
	Aquatera Refrigerator	11/13/18	1315		11/13/18	1315	OK
				PACE	11/14/18	845	2.5 Y N Y

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

2.4 +0.1 2.5 #2

RAD SCREEN: ORIGINAL <0.5 mR/hr

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Jason Milowicki
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 11/12/18

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

T.C. 24 x TB

F-ALL-Q-020rev.07, 15-May-2007

L1044397

Evergreen Petroleum Short List (June 2016)

VOCs by EPA Method 8260	CAS No.
Benzene	71-43-2
Cumene	98-82-8
Dichloroethane, 1,2-	107-06-2
Ethylbenzene	100-41-4
Ethylene Dibromide*	106-93-4
Methyl tert butyl ether	1634-04-4
Toluene	108-88-3
Trimethylbenzene, 1,2,4-	95-63-6
Trimethylbenzene, 1,3,5-	108-67-8
Xylenes	1330-20-7

SVOCs by EPA Method 8270	CAS No.
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(a)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Chrysene	218-01-9
Fluorene	86-73-7
Naphthalene**	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Metals by Method 6010/6020	CAS No.
Lead***	7439-92-1

*Ethylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

**Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

***Metals analysis should be total in soil and dissolved in groundwater.

This list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline and No. 1, 2, 4, 5, 6 Fuel Oils).

Pace Analytical National Center for Testing & Innovation
Cooler Receipt Form

Client: SUNAQUA		SDG#	L1044397
Cooler Received/Opened On: 11/14/18		Temperature:	2.5
Received By: Patrick Nshizirungu			
Signature:			

Receipt Check List	NP	Yes	No
COC Seal Present / Intact?	✓		
COC Signed / Accurate?		✓	
Bottles arrive intact?		✓	
Correct bottles used?		✓	
Sufficient volume sent?		✓	
If Applicable		✓	
VOA Zero headspace?			
Preservation Correct / Checked?			

Troy Dunlap

Pace Analytical®
National Center for Testing & Innovation

Login #: L1044397	Client: SUNAQUA	Date: 11/14/18	Evaluated by: Troy Dunlap

Non-Conformance (check applicable items)

	Sample Integrity		Chain of Custody Clarification		
	Parameter(s) past holding time	X	Login Clarification Needed		**If Broken Container:**
	Improper temperature		Chain of custody is incomplete		Insufficient packing material around container
	Improper container type		Please specify Metals requested.		Insufficient packing material inside cooler
	Improper preservation		Please specify TCLP requested.		Improper handling by carrier (FedEx / UPS / Courie
	Insufficient sample volume.		Received additional samples not listed on coc.		Sample was frozen
	Sample is biphasic.		Sample ids on containers do not match ids on coc		Container lid not intact
	Vials received with headspace.		Trip Blank not received.		**If no Chain of Custody:**
	Broken container		Client did not "X" analysis.		Received by:
	Broken container:		Chain of Custody is missing		Date/Time:
	Sufficient sample remains				Temp./Cont. Rec./pH:
					Carrier:
					Tracking#

Login Comments: Please clarify analysis.

Client informed by:		Call		Email		Voice Mail		Date: 11/15/18	Time: 1240
TSR Initials: MB	Client Contact: Mike S.								

Login Instructions:

Log S-377 and S-378 for V8260UGPA (3 HCL vials)
Ship rest of samples and copy of COC to Pace - Energy

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

March 11, 2019

Aquaterra Technologies, Inc. - S/E

Sample Delivery Group:	L1063104
Samples Received:	01/22/2019
Project Number:	
Description:	Ph Refinery AOI4 Penrose

Report To: Michael Sarcinello
122 South Church St.
West Chester, PA 19382

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 3

Cn: Case Narrative 5

Sr: Sample Results 6

S-374-20190116-WG L1063104-01 6

S-375-20190116-WG L1063104-02 7

S-376-20190116-WG L1063104-03 8

S-377-20190117-WG L1063104-04 9

S-378-20190117-WG L1063104-05 10

S-224-20190118-WG L1063104-06 11

S-223-20190118-WG L1063104-07 12

S-239-20190118-WG L1063104-08 13

S-243-20190118-WG L1063104-09 14

Qc: Quality Control Summary 15

Volatile Organic Compounds (GC/MS) by Method 8260B 15

EDB / DBCP by Method 8011 20

Gl: Glossary of Terms 22

Al: Accreditations & Locations 23

Sc: Sample Chain of Custody 24

S-374-20190116-WG L1063104-01 GW

Collected by: Jason Milowicki | Collected date/time: 01/16/19 15:15 | Received date/time: 01/22/19 11:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1226857	20	01/22/19 18:48	01/22/19 18:48	ACG	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1227696	1	01/24/19 08:03	01/25/19 17:54	HMH	Mt. Juliet, TN

S-375-20190116-WG L1063104-02 GW

Collected by: Jason Milowicki | Collected date/time: 01/16/19 13:20 | Received date/time: 01/22/19 11:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1226857	1	01/22/19 19:07	01/22/19 19:07	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1227257	50	01/23/19 19:06	01/23/19 19:06	JCP	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1227696	1	01/24/19 08:03	01/25/19 18:07	HMH	Mt. Juliet, TN

S-376-20190116-WG L1063104-03 GW

Collected by: Jason Milowicki | Collected date/time: 01/16/19 11:40 | Received date/time: 01/22/19 11:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1226857	10	01/22/19 19:27	01/22/19 19:27	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1227257	100	01/23/19 19:25	01/23/19 19:25	JCP	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1227696	1	01/24/19 08:03	01/25/19 18:19	HMH	Mt. Juliet, TN

S-377-20190117-WG L1063104-04 GW

Collected by: Jason Milowicki | Collected date/time: 01/17/19 13:00 | Received date/time: 01/22/19 11:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1226857	5	01/22/19 19:46	01/22/19 19:46	ACG	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1227696	1	01/24/19 08:03	01/25/19 18:31	HMH	Mt. Juliet, TN

S-378-20190117-WG L1063104-05 GW

Collected by: Jason Milowicki | Collected date/time: 01/17/19 14:15 | Received date/time: 01/22/19 11:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1226857	5	01/22/19 20:06	01/22/19 20:06	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1227257	50	01/23/19 19:45	01/23/19 19:45	JCP	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1227696	1	01/24/19 08:03	01/25/19 18:43	HMH	Mt. Juliet, TN

S-224-20190118-WG L1063104-06 GW

Collected by: Jason Milowicki | Collected date/time: 01/18/19 09:30 | Received date/time: 01/22/19 11:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1226857	1	01/22/19 20:26	01/22/19 20:26	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1227512	10	01/23/19 17:16	01/23/19 17:16	ADM	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1227696	1	01/24/19 08:03	01/25/19 18:56	HMH	Mt. Juliet, TN

S-223-20190118-WG L1063104-07 GW

Collected by: Jason Milowicki | Collected date/time: 01/18/19 10:30 | Received date/time: 01/22/19 11:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1227512	50	01/23/19 17:36	01/23/19 17:36	ADM	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1228993	1	01/27/19 09:16	01/28/19 23:02	HMH	Mt. Juliet, TN

S-239-20190118-WG L1063104-08 GW

Collected by: Jason Milowicki
Collected date/time: 01/18/19 11:45
Received date/time: 01/22/19 11:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1226857	1	01/22/19 21:05	01/22/19 21:05	ACG	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1228993	1	01/27/19 09:16	01/28/19 23:15	HMH	Mt. Juliet, TN

S-243-20190118-WG L1063104-09 GW

Collected by: Jason Milowicki
Collected date/time: 01/18/19 12:45
Received date/time: 01/22/19 11:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1226857	1	01/22/19 21:25	01/22/19 21:25	ACG	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1228993	1	01/27/19 09:16	01/28/19 23:26	HMH	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Mark W. Beasley
Project Manager

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	312		20.0	20	01/22/2019 18:48	WG1226857
1,2-Dichloroethane	ND		20.0	20	01/22/2019 18:48	WG1226857
Ethylbenzene	1530		20.0	20	01/22/2019 18:48	WG1226857
Isopropylbenzene	102		20.0	20	01/22/2019 18:48	WG1226857
Toluene	903		20.0	20	01/22/2019 18:48	WG1226857
1,2,4-Trimethylbenzene	1110		20.0	20	01/22/2019 18:48	WG1226857
1,3,5-Trimethylbenzene	237		20.0	20	01/22/2019 18:48	WG1226857
Xylenes, Total	4060		60.0	20	01/22/2019 18:48	WG1226857
Methyl tert-butyl ether	ND		20.0	20	01/22/2019 18:48	WG1226857
tert-Butyl alcohol	ND		100	20	01/22/2019 18:48	WG1226857
(S) Toluene-d8	*100*		*80.0-120*		*01/22/2019 18:48*	WG1226857
(S) Dibromofluoromethane	*93.9*		*75.0-120*		*01/22/2019 18:48*	WG1226857
(S) 4-Bromofluorobenzene	*92.1*		*77.0-126*		*01/22/2019 18:48*	WG1226857

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Ethylene Dibromide	ND		0.0100	1	01/25/2019 17:54	WG1227696

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	1090		50.0	50	01/23/2019 19:06	WG1227257
1,2-Dichloroethane	ND		1.00	1	01/22/2019 19:07	WG1226857
Ethylbenzene	1190		50.0	50	01/23/2019 19:06	WG1227257
Isopropylbenzene	43.7		1.00	1	01/22/2019 19:07	WG1226857
Toluene	2920		50.0	50	01/23/2019 19:06	WG1227257
1,2,4-Trimethylbenzene	823		50.0	50	01/23/2019 19:06	WG1227257
1,3,5-Trimethylbenzene	239		50.0	50	01/23/2019 19:06	WG1227257
Xylenes, Total	6270		150	50	01/23/2019 19:06	WG1227257
Methyl tert-butyl ether	ND		1.00	1	01/22/2019 19:07	WG1226857
tert-Butyl alcohol	ND		5.00	1	01/22/2019 19:07	WG1226857
(S) Toluene-d8	*82.4*		*80.0-120*		*01/22/2019 19:07*	WG1226857
(S) Dibromofluoromethane	*93.7*		*75.0-120*		*01/22/2019 19:07*	WG1226857
(S) 4-Bromofluorobenzene	*99.3*		*77.0-126*		*01/22/2019 19:07*	WG1226857
(S) Toluene-d8	*108*		*80.0-120*		*01/23/2019 19:06*	WG1227257
(S) Dibromofluoromethane	*102*		*75.0-120*		*01/23/2019 19:06*	WG1227257
(S) a,a,a-Trifluorotoluene	*107*		*80.0-120*		*01/23/2019 19:06*	WG1227257
(S) 4-Bromofluorobenzene	*98.1*		*77.0-126*		*01/23/2019 19:06*	WG1227257

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	ND		0.0100	1	01/25/2019 18:07	WG1227696

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	198		10.0	10	01/22/2019 19:27	WG1226857
1,2-Dichloroethane	ND		10.0	10	01/22/2019 19:27	WG1226857
Ethylbenzene	1160		10.0	10	01/22/2019 19:27	WG1226857
Isopropylbenzene	26.9		10.0	10	01/22/2019 19:27	WG1226857
Toluene	2310		100	100	01/23/2019 19:25	WG1227257
1,2,4-Trimethylbenzene	1210		10.0	10	01/22/2019 19:27	WG1226857
1,3,5-Trimethylbenzene	373		10.0	10	01/22/2019 19:27	WG1226857
Xylenes, Total	6220		300	100	01/23/2019 19:25	WG1227257
Methyl tert-butyl ether	ND		10.0	10	01/22/2019 19:27	WG1226857
tert-Butyl alcohol	ND		50.0	10	01/22/2019 19:27	WG1226857
(S) Toluene-d8	*98.1*		*80.0-120*		*01/22/2019 19:27*	WG1226857
(S) Dibromofluoromethane	*90.8*		*75.0-120*		*01/22/2019 19:27*	WG1226857
(S) 4-Bromofluorobenzene	*93.2*		*77.0-126*		*01/22/2019 19:27*	WG1226857
(S) Toluene-d8	*109*		*80.0-120*		*01/23/2019 19:25*	WG1227257
(S) Dibromofluoromethane	*100*		*75.0-120*		*01/23/2019 19:25*	WG1227257
(S) a,a,a-Trifluorotoluene	*106*		*80.0-120*		*01/23/2019 19:25*	WG1227257
(S) 4-Bromofluorobenzene	*99.0*		*77.0-126*		*01/23/2019 19:25*	WG1227257

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Ethylene Dibromide	ND		0.0100	1	01/25/2019 18:19	WG1227696

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	109		5.00	5	01/22/2019 19:46	WG1226857
1,2-Dichloroethane	ND		5.00	5	01/22/2019 19:46	WG1226857
Ethylbenzene	221		5.00	5	01/22/2019 19:46	WG1226857
Isopropylbenzene	37.8		5.00	5	01/22/2019 19:46	WG1226857
Toluene	61.0		5.00	5	01/22/2019 19:46	WG1226857
1,2,4-Trimethylbenzene	284		5.00	5	01/22/2019 19:46	WG1226857
1,3,5-Trimethylbenzene	129		5.00	5	01/22/2019 19:46	WG1226857
Xylenes, Total	494		15.0	5	01/22/2019 19:46	WG1226857
Methyl tert-butyl ether	ND		5.00	5	01/22/2019 19:46	WG1226857
tert-Butyl alcohol	ND		25.0	5	01/22/2019 19:46	WG1226857
(S) Toluene-d8	*97.2*		*80.0-120*		*01/22/2019 19:46*	WG1226857
(S) Dibromofluoromethane	*92.0*		*75.0-120*		*01/22/2019 19:46*	WG1226857
(S) 4-Bromofluorobenzene	*94.3*		*77.0-126*		*01/22/2019 19:46*	WG1226857

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Ethylene Dibromide	ND		0.0100	1	01/25/2019 18:31	WG1227696

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	1390		50.0	50	01/23/2019 19:45	WG1227257
1,2-Dichloroethane	ND		5.00	5	01/22/2019 20:06	WG1226857
Ethylbenzene	1090		50.0	50	01/23/2019 19:45	WG1227257
Isopropylbenzene	55.0		5.00	5	01/22/2019 20:06	WG1226857
Toluene	325		5.00	5	01/22/2019 20:06	WG1226857
1,2,4-Trimethylbenzene	722		5.00	5	01/22/2019 20:06	WG1226857
1,3,5-Trimethylbenzene	289		5.00	5	01/22/2019 20:06	WG1226857
Xylenes, Total	1270		15.0	5	01/22/2019 20:06	WG1226857
Methyl tert-butyl ether	ND		5.00	5	01/22/2019 20:06	WG1226857
tert-Butyl alcohol	130		25.0	5	01/22/2019 20:06	WG1226857
(S) Toluene-d8	*94.6*		*80.0-120*		*01/22/2019 20:06*	WG1226857
(S) Dibromofluoromethane	*92.7*		*75.0-120*		*01/22/2019 20:06*	WG1226857
(S) 4-Bromofluorobenzene	*96.1*		*77.0-126*		*01/22/2019 20:06*	WG1226857
(S) Toluene-d8	*109*		*80.0-120*		*01/23/2019 19:45*	WG1227257
(S) Dibromofluoromethane	*101*		*75.0-120*		*01/23/2019 19:45*	WG1227257
(S) a,a,a-Trifluorotoluene	*107*		*80.0-120*		*01/23/2019 19:45*	WG1227257
(S) 4-Bromofluorobenzene	*98.1*		*77.0-126*		*01/23/2019 19:45*	WG1227257

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Ethylene Dibromide	ND		0.0100	1	01/25/2019 18:43	WG1227696

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	107		1.00	1	01/22/2019 20:26	WG1226857
1,2-Dichloroethane	ND		1.00	1	01/22/2019 20:26	WG1226857
Ethylbenzene	104		1.00	1	01/22/2019 20:26	WG1226857
Isopropylbenzene	8.25		1.00	1	01/22/2019 20:26	WG1226857
Toluene	51.5		1.00	1	01/22/2019 20:26	WG1226857
1,2,4-Trimethylbenzene	131		1.00	1	01/22/2019 20:26	WG1226857
1,3,5-Trimethylbenzene	37.3		1.00	1	01/22/2019 20:26	WG1226857
Xylenes, Total	317		3.00	1	01/22/2019 20:26	WG1226857
Methyl tert-butyl ether	ND		1.00	1	01/22/2019 20:26	WG1226857
tert-Butyl alcohol	209		50.0	10	01/23/2019 17:16	WG1227512
(S) Toluene-d8	*90.3*		*80.0-120*		*01/22/2019 20:26*	WG1226857
(S) Toluene-d8	*106*		*80.0-120*		*01/23/2019 17:16*	WG1227512
(S) Dibromofluoromethane	*91.5*		*75.0-120*		*01/22/2019 20:26*	WG1226857
(S) Dibromofluoromethane	*98.1*		*75.0-120*		*01/23/2019 17:16*	WG1227512
(S) 4-Bromofluorobenzene	*95.0*		*77.0-126*		*01/22/2019 20:26*	WG1226857
(S) 4-Bromofluorobenzene	*108*		*77.0-126*		*01/23/2019 17:16*	WG1227512

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	ND		0.0100	1	01/25/2019 18:56	WG1227696

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	1680		50.0	50	01/23/2019 17:36	WG1227512
1,2-Dichloroethane	ND		50.0	50	01/23/2019 17:36	WG1227512
Ethylbenzene	601		50.0	50	01/23/2019 17:36	WG1227512
Isopropylbenzene	ND		50.0	50	01/23/2019 17:36	WG1227512
Toluene	221		50.0	50	01/23/2019 17:36	WG1227512
1,2,4-Trimethylbenzene	664		50.0	50	01/23/2019 17:36	WG1227512
1,3,5-Trimethylbenzene	232		50.0	50	01/23/2019 17:36	WG1227512
Xylenes, Total	1400		150	50	01/23/2019 17:36	WG1227512
Methyl tert-butyl ether	ND		50.0	50	01/23/2019 17:36	WG1227512
tert-Butyl alcohol	ND		250	50	01/23/2019 17:36	WG1227512
(S) Toluene-d8	*105*		*80.0-120*		*01/23/2019 17:36*	WG1227512
(S) Dibromofluoromethane	*103*		*75.0-120*		*01/23/2019 17:36*	WG1227512
(S) 4-Bromofluorobenzene	*109*		*77.0-126*		*01/23/2019 17:36*	WG1227512

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Ethylene Dibromide	ND		0.0100	1	01/28/2019 23:02	WG1228993

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	25.1		1.00	1	01/22/2019 21:05	WG1226857
1,2-Dichloroethane	ND		1.00	1	01/22/2019 21:05	WG1226857
Ethylbenzene	67.3		1.00	1	01/22/2019 21:05	WG1226857
Isopropylbenzene	3.72		1.00	1	01/22/2019 21:05	WG1226857
Toluene	21.9		1.00	1	01/22/2019 21:05	WG1226857
1,2,4-Trimethylbenzene	86.7		1.00	1	01/22/2019 21:05	WG1226857
1,3,5-Trimethylbenzene	28.8		1.00	1	01/22/2019 21:05	WG1226857
Xylenes, Total	196		3.00	1	01/22/2019 21:05	WG1226857
Methyl tert-butyl ether	ND		1.00	1	01/22/2019 21:05	WG1226857
tert-Butyl alcohol	ND		5.00	1	01/22/2019 21:05	WG1226857
(S) Toluene-d8	*95.5*		*80.0-120*		*01/22/2019 21:05*	WG1226857
(S) Dibromofluoromethane	*92.1*		*75.0-120*		*01/22/2019 21:05*	WG1226857
(S) 4-Bromofluorobenzene	*92.0*		*77.0-126*		*01/22/2019 21:05*	WG1226857

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Ethylene Dibromide	ND		0.0100	1	01/28/2019 23:15	WG1228993

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	22.2		1.00	1	01/22/2019 21:25	WG1226857
1,2-Dichloroethane	ND		1.00	1	01/22/2019 21:25	WG1226857
Ethylbenzene	75.5		1.00	1	01/22/2019 21:25	WG1226857
Isopropylbenzene	4.67		1.00	1	01/22/2019 21:25	WG1226857
Toluene	23.2		1.00	1	01/22/2019 21:25	WG1226857
1,2,4-Trimethylbenzene	106		1.00	1	01/22/2019 21:25	WG1226857
1,3,5-Trimethylbenzene	35.3		1.00	1	01/22/2019 21:25	WG1226857
Xylenes, Total	214		3.00	1	01/22/2019 21:25	WG1226857
Methyl tert-butyl ether	ND		1.00	1	01/22/2019 21:25	WG1226857
tert-Butyl alcohol	ND		5.00	1	01/22/2019 21:25	WG1226857
(S) Toluene-d8	*93.2*		*80.0-120*		*01/22/2019 21:25*	WG1226857
(S) Dibromofluoromethane	*94.6*		*75.0-120*		*01/22/2019 21:25*	WG1226857
(S) 4-Bromofluorobenzene	*92.9*		*77.0-126*		*01/22/2019 21:25*	WG1226857

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Ethylene Dibromide	ND		0.0100	1	01/28/2019 23:26	WG1228993

Method Blank (MB)

(MB) R3377870-4 01/22/19 13:55

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.331	1.00
1,2-Dichloroethane	U		0.361	1.00
Ethylbenzene	U		0.384	1.00
Isopropylbenzene	U		0.326	1.00
Methyl tert-butyl ether	U		0.367	1.00
Toluene	U		0.412	1.00
1,2,4-Trimethylbenzene	U		0.373	1.00
1,3,5-Trimethylbenzene	U		0.387	1.00
Xylenes, Total	U		1.06	3.00
tert-Butyl alcohol	U		2.40	5.00
(S) Toluene-d8	*101*			*80.0-120*
(S) Dibromofluoromethane	*93.6*			*75.0-120*
(S) 4-Bromofluorobenzene	*92.6*			*77.0-126*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3377870-1 01/22/19 12:15 • (LCSD) R3377870-2 01/22/19 12:35

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	25.0	24.4	24.7	97.6	98.8	70.0-123			1.23	20
1,2-Dichloroethane	25.0	25.0	24.6	100	98.6	70.0-128			1.41	20
Ethylbenzene	25.0	26.4	27.3	105	109	79.0-123			3.70	20
Isopropylbenzene	25.0	25.3	26.0	101	104	76.0-127			2.85	20
Methyl tert-butyl ether	25.0	25.9	25.7	104	103	68.0-125			0.966	20
Toluene	25.0	25.2	25.9	101	104	79.0-120			2.55	20
1,2,4-Trimethylbenzene	25.0	24.6	25.2	98.6	101	76.0-121			2.24	20
1,3,5-Trimethylbenzene	25.0	25.0	25.7	99.9	103	76.0-122			2.66	20
Xylenes, Total	75.0	79.3	82.7	106	110	79.0-123			4.20	20
(S) Toluene-d8				*98.2*	*99.9*	*80.0-120*				
(S) Dibromofluoromethane				*95.1*	*94.6*	*75.0-120*				
(S) 4-Bromofluorobenzene				*93.4*	*93.7*	*77.0-126*				

Laboratory Control Sample (LCS)

(LCS) R3377870-3 01/22/19 13:15

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
tert-Butyl alcohol	50.0	67.9	136	27.0-160	
(S) Toluene-d8			*99.3*	*80.0-120*	

Laboratory Control Sample (LCS)

(LCS) R3377870-3 01/22/19 13:15

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
(S) Dibromofluoromethane			*94.0*	*75.0-120*	
(S) 4-Bromofluorobenzene			*92.4*	*77.0-126*	

Method Blank (MB)

(MB) R3378529-3 01/23/19 11:06

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.331	1.00
Ethylbenzene	U		0.384	1.00
Toluene	U		0.412	1.00
1,2,4-Trimethylbenzene	U		0.373	1.00
1,3,5-Trimethylbenzene	U		0.387	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	*110*			*80.0-120*
(S) Dibromofluoromethane	*99.8*			*75.0-120*
(S) a,a,a-Trifluorotoluene	*107*			*80.0-120*
(S) 4-Bromofluorobenzene	*101*			*77.0-126*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3378529-1 01/23/19 09:29 • (LCSD) R3378529-2 01/23/19 09:48

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Benzene	25.0	24.4	25.0	97.7	99.9	70.0-123			2.28	20
Ethylbenzene	25.0	28.1	28.7	112	115	79.0-123			2.36	20
Toluene	25.0	25.6	26.2	102	105	79.0-120			2.17	20
1,2,4-Trimethylbenzene	25.0	24.8	25.9	99.3	104	76.0-121			4.26	20
1,3,5-Trimethylbenzene	25.0	24.4	25.9	97.6	103	76.0-122			5.87	20
Xylenes, Total	75.0	81.7	86.3	109	115	79.0-123			5.48	20
(S) Toluene-d8				*107*	*106*	*80.0-120*				
(S) Dibromofluoromethane				*101*	*102*	*75.0-120*				
(S) a,a,a-Trifluorotoluene				*106*	*105*	*80.0-120*				
(S) 4-Bromofluorobenzene				*95.5*	*96.6*	*77.0-126*				

Method Blank (MB)

(MB) R3378288-5 01/23/19 11:10

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.331	1.00
1,2-Dichloroethane	U		0.361	1.00
Ethylbenzene	U		0.384	1.00
Isopropylbenzene	U		0.326	1.00
Methyl tert-butyl ether	U		0.367	1.00
Toluene	U		0.412	1.00
1,2,4-Trimethylbenzene	U		0.373	1.00
1,3,5-Trimethylbenzene	U		0.387	1.00
Xylenes, Total	U		1.06	3.00
tert-Butyl alcohol	U		2.40	5.00
(S) Toluene-d8	*108*			*80.0-120*
(S) Dibromofluoromethane	*103*			*75.0-120*
(S) 4-Bromofluorobenzene	*111*			*77.0-126*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3378288-1 01/23/19 09:29 • (LCSD) R3378288-2 01/23/19 09:49

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	25.0	24.5	25.0	98.0	100	70.0-123			2.19	20
1,2-Dichloroethane	25.0	24.1	23.7	96.4	94.6	70.0-128			1.91	20
Ethylbenzene	25.0	26.4	26.2	106	105	79.0-123			0.719	20
Isopropylbenzene	25.0	29.4	30.4	118	122	76.0-127			3.53	20
Methyl tert-butyl ether	25.0	23.2	23.0	92.9	92.0	68.0-125			0.960	20
Toluene	25.0	25.8	25.7	103	103	79.0-120			0.405	20
1,2,4-Trimethylbenzene	25.0	24.3	25.6	97.4	102	76.0-121			5.03	20
1,3,5-Trimethylbenzene	25.0	26.8	27.8	107	111	76.0-122			3.72	20
Xylenes, Total	75.0	79.9	79.9	107	107	79.0-123			0.000	20
(S) Toluene-d8				*107*	*104*	*80.0-120*				
(S) Dibromofluoromethane				*97.2*	*101*	*75.0-120*				
(S) 4-Bromofluorobenzene				*109*	*110*	*77.0-126*				

Laboratory Control Sample (LCS)

(LCS) R3378288-4 01/23/19 10:30

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
tert-Butyl alcohol	50.0	53.9	108	27.0-160	
(S) Toluene-d8			*105*	*80.0-120*	

Laboratory Control Sample (LCS)

(LCS) R3378288-4 01/23/19 10:30

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
(S) Dibromofluoromethane			*100*	*75.0-120*	
(S) 4-Bromofluorobenzene			*106*	*77.0-126*	

Method Blank (MB)

(MB) R3379234-1 01/25/19 14:02

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Ethylene Dibromide	U		0.00240	0.0100

L1063083-13 Original Sample (OS) • Duplicate (DUP)

(OS) L1063083-13 01/28/19 20:09 • (DUP) R3379509-3 01/28/19 19:57

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Ethylene Dibromide	7.68	8.72	20	12.7		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3379234-4 01/25/19 16:53 • (LCSD) R3379234-5 01/25/19 19:20

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Ethylene Dibromide	0.250	0.245	0.237	98.0	94.8	60.0-140			3.32	20

L1063083-14 Original Sample (OS) • Matrix Spike (MS)

(OS) L1063083-14 01/28/19 19:45 • (MS) R3379509-2 01/28/19 19:34

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
	ug/l	ug/l	ug/l	%		%	
Ethylene Dibromide	0.100	2.08	2.06	0.000	10	64.0-159	V

Method Blank (MB)

(MB) R3379510-1 01/28/19 22:04

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Ethylene Dibromide	U		0.00240	0.0100

L1063270-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1063270-01 01/28/19 22:51 • (DUP) R3379510-3 01/28/19 22:39

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Ethylene Dibromide	U	0.000	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3379510-4 01/29/19 00:51 • (LCSD) R3379510-5 01/29/19 03:19

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Ethylene Dibromide	0.250	0.221	0.236	88.4	94.4	60.0-140			6.56	20

L1063270-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1063270-02 01/28/19 22:27 • (MS) R3379510-2 01/28/19 22:16

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
	ug/l	ug/l	ug/l	%		%	
Ethylene Dibromide	0.0998	U	0.104	104	1	64.0-159	

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
V	The sample concentration is too high to evaluate accurate spike recoveries.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

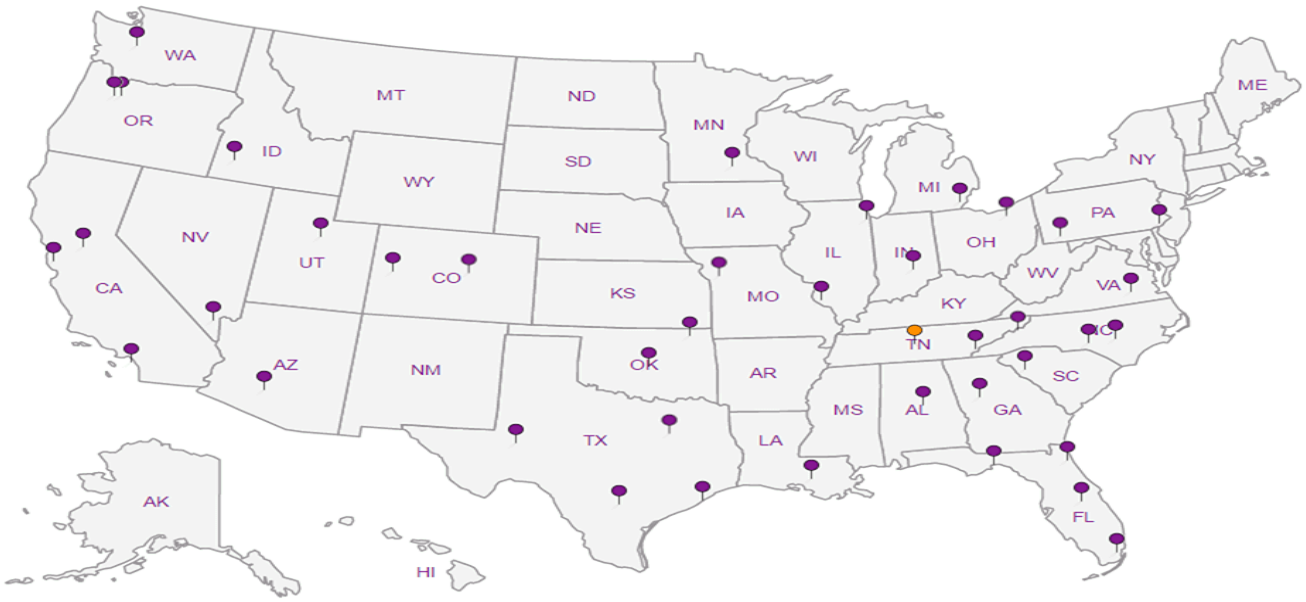
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

ALL SHADED AREAS are for LAB USE ONLY L1063104

Company: Aguaterra Technologies	Billing Information:
Address: 122 Church St Lyncheste, PA	
Report To: M. Sarcinello	Email To: ms@Aguaterra-tech.com
Copy To:	Site Collection Info/Address: Philadelphia Refinery
Customer Project Name/Number: PA Refinery A014 Penrose	State: PA / County/City: Philadelphia / Time Zone Collected: [ ] PT [ ] MT [ ] CT [ ] ET
Phone: Email: ms@Aguaterratech.com	Site/Facility ID #: / Compliance Monitoring? [ ] Yes [ ] No
Collected By (print): Jason Milowicki	Purchase Order #: / Quote #: / DW PWS ID #: / DW Location Code:
Collected By (signature):	Turnaround Date Required: / Immediately Packed on Ice: [ ] Yes [ ] No
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold:	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply) / Field Filtered (if applicable): [ ] Yes [ ] No / Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	Energreen Shallow UST + TBA	Energreen Shallow UST + TBA	Analyses	Lab Profile/Line:
S-374-20190116-WG	GW	G	1/16/19	1515				6	X	X		-01
S-375-20190116-WG	GW	G	1/16/19	1320				6	X	X		-02
S-376-20190116-WG	GW	G	1/16/19	1140				6	X	X		-03
S-377-20190117-WG	GW	G	1/17/19	1350				6	X	X		-04
S-378-20190117-WG	GW	G	1/17/19	1415				6	X	X		-05
S-204-20190118-WG	GW	G	1/18/19	930				6	X	X		-06
S-223-20190118-WG	GW	G	1/18/19	1030				6	X	X		-07
S-239-20190118-WG	GW	G	1/18/19	1145				6	X	X		-08
S-243-20190118-WG	GW	G	1/18/19	1245				6	X	X		-09
												-10

Container Preservative Type **

Lab Project Manager:

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y	N	NA
Custody Signatures Present	Y	N	NA
Collector Signature Present	Y	N	NA
Bottles Intact	Y	N	NA
Correct Bottles	Y	N	NA
Sufficient Volume	Y	N	NA
Samples Received on Ice	Y	N	NA
VOA - Headspace Acceptable	Y	N	NA
USDA Regulated Soils	Y	N	NA
Samples in Holding Time	Y	N	NA
Residual Chlorine Present	Y	N	NA
Cl Strips:			
Sample pH Acceptable	Y	N	NA
pH Strips:			
Sulfide Present	Y	N	NA
Lead Acetate Strips:			

LAB USE ONLY:
Lab Sample # / Comments:

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 2347615

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#: 41 CK
Cooler 1 Temp Upon Receipt: 4.7 oC
Cooler 1 Therm Corr. Factor: +.1 oC
Cooler 1 Corrected Temp: 4.8 oC
Comments:

Relinquished by/Company: (Signature) Jason Milowicki	Date/Time: 1/18/19 1600	Received by/Company: (Signature) Aguaterra Refrigerator
Relinquished by/Company: (Signature) Aguaterra Sample Fridge	Date/Time: 1/21/19 1400	Received by/Company: (Signature)
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)

Received by/Company: (Signature)	Date/Time: 1/18/19 1600
Received by/Company: (Signature)	Date/Time:
Received by/Company: (Signature)	Date/Time: 1/22/19 1100

MTJL LAB USE ONLY

I182

Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: of:

L1063104

Evergreen Petroleum Short List (June 2016)

VOCs by EPA Method 8260	CAS No.
Benzene	71-43-2
Cumene	98-82-8
Dichloroethane, 1,2-	107-06-2
Ethylbenzene	100-41-4
Ethylene Dibromide*	106-93-4
Methyl tert butyl ether	1634-04-4
Toluene	108-88-3
Trimethylbenzene, 1,2,4-	95-63-6
Trimethylbenzene, 1,3,5-	108-67-8
Xylenes	1330-20-7

Evergreen Short list (VOC's)

SVOCs by EPA Method 8270	CAS No.
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(a)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Chrysene	218-01-9
Fluorene	86-73-7
Naphthalene**	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Metals by Method 6010/6020	CAS No.
Lead***	7439-92-1

*Ethylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

**Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

***Metals analysis should be total in soil and dissolved in groundwater.

This list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline and No. 1, 2, 4, 5, 6 Fuel Oils).

ULTRA-TRACE ANALYSIS OF SUCRALOSE IN MULTI-MATRIX AQUEOUS SAMPLES BY ONLINE SPE HPLC-HIGH RESOLUTION MASS SPECTROMETRY

FINAL REPORT

M2105C M2105F

Submitted to

Mark Cejas & Andrew Klingbeil
ChemQuants, LLC
1338 Kenwood Rd. Santa Barbara, CA 93109

Performing Laboratory

Environmental Analysis Research Laboratory (EARL)
Southeast Environmental Research Center and
Department of Chemistry & Biochemistry
Florida International University
North Miami, Florida 33181

Study Completed on

July 1st, 2021

SIGNATURES AND APPROVAL

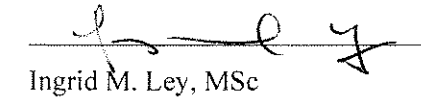
M2105C M2105F

Submitted by: Environmental Analysis Research Laboratory (EARL)
Southeast Environmental Research Center and
Department of Chemistry & Biochemistry
Florida International University
North Miami, Florida 33181



QC Reviewer

07/01/21
Date



Ingrid M. Ley, MSc
Organic Analyst

07/01/2021
Date

The above results relate only to the samples.

Environmental Analysis Research Laboratory (EARL)
Southeast Environmental Research Center and
Department of Chemistry & Biochemistry
Florida International University, Marine Science Building MSB 230/232,
North Miami, Florida 33181
(305) 348-6354 – (305) 348-6249

Florida International University
Environmental Analysis Research Laboratory
3000 NE 151st Street
North Miami, FL 33181

Case Narrative

Project: 20210514_STANTEC

Client Project ID: CQ#0139_Former Philadelphia Refinery Annual GWS

Client: Evergreen c/o Stantec

FIU QC Batch No: M2489-M2491

SDG #: M2105C, M2105D

Date: June 25, 2021

General Information:

23 samples arrived on 05/14/21 and 14 samples arrived on 05/20/2021. They were analyzed for Sucralose using EARL SOP-2014-O-130.1.

Samples were received in acceptable condition with any exceptions noted below.

Sample Receipt:

Samples were received at frozen.

Holding Time:

Samples were analyzed within the allowable holding time of 30 days as specified in EARL SOP-2014-O-130.1.

Sample Storage:

Samples were stored in a freezer at < -20°C until sample preparation / analysis.

Initial Calibrations:

All criteria were within EARL SOP-2014-O-130.1 method requirements (r^2>0.99).

Continuing Calibration Verification:

All criteria were within method requirements (the measured concentration should not deviate more than 30% from the assigned value, for all analytes). With any exceptions noted below.

Laboratory Reagent Blank (LRB):

All analytes were below the method detection limit in the LRB with any exceptions noted below.

Laboratory Fortified Blank (LFB) and LFB Duplicate:

All Laboratory Fortified Blank compounds were within EARL SOP-2014-O-130.1 method requirements (70%-130% recovery), with any exceptions noted below.

All Laboratory Fortified Blank RPD were within EARL SOP-2014-O-130.1 method requirements (≤ 30% RPD) with any exceptions noted below.

Laboratory Fortified Matrix (LFM):

All Laboratory Fortified Matrix compounds were within EARL SOP-2014-O-130.1 method requirements (70%-130% recovery), with any exceptions noted below.

Matrix spike was not analyzed for batch M2491 due to a miss-spike. Instrument malfunctioned afterwards and sample re-run was not acquired.

Sample Duplicate:

All Duplicate Samples above MDL were within EARL SOP-2014-O-130.1 method requirements (<30% RPD) with any exceptions noted below.

RPD for duplicate samples S-115SRTF was outside the quality control criteria but sample results were below the MDL.

ICVS:

Analysis of ICVS was within EARL SOP-2014-O-130.1 method requirements (Recovery within 70-130%) with any exceptions noted below.

Additional Comments:

Recovery of the internal standard for all samples was low when analyzed at full strenghth; therefore, different dilutions were used in order to get an acceptable percent recovery.

Southeast Environmental Research Center
Environmental Analysis Research Laboratory
Biscayne Bay Campus, MSB 232
Miami, Florida 33181 (305) 348-6249

EARL CHAIN OF CUSTODY RECORD

MATRIX CODE	SDG #
1 WATER 2 SEDIMENT/SOIL 3 TISSUE 4 OTHER	M2105C

PROJECT/ASR #:	PROJECT NAME (COC ID):
CQ #0139	Former Philadelphia Refinery Annual GWS

SAMPLERS NAME/SIGNATURE:	CLIENT PI:
Dane Hopkins, Andrea Hill, Maddie Bredehoeft	Evergreen c/o Stantec
Doulton Campbell	

ITEM #	SAMPLE ID (CLIENT SAMPLE ID):	DATE	TIME	STATION LOCATION		TOTAL # of CONTAINERS	MATRIX	SAMPLE TYPE	COLLECTION TYPE	SAMPLE CONDITION	REQUESTED PARAMETERS: SUCRALOSE						FIU ID
1	S-442_20210505	5/5/2021	8:55			2	1	GW	Grab		X						21-00396
2	S-446_20210505	5/5/2021	10:00			2	1	GW	Grab		X						21-00397
3	S-44_20210505	5/5/2021	10:35			2	1	GW	Grab		X						21-00398
4	S-445_20210505	5/5/2021	11:35			2	1	GW	Grab		X						21-00399
5	S-50_20210505	5/5/2021	13:00			2	1	GW	Grab		X						21-00400
6	S-396_20210505	5/5/2021	14:15			2	1	GW	Grab		X						21-00401
7	S-441_20210505	5/5/2021	14:45			2	1	GW	Grab		X						21-00402
8	S-444_20210506	5/6/2021	08:55			2	1	GW	Grab		X						21-00403
9	S-42I_20210506	5/6/2021	08:25			2	1	GW	Grab		X						21-00404
10	S-87I_20210506	5/6/2021	11:55			2	1	GW	Grab		X						21-00405
11	S-449_20210506	5/6/2021	12:20			2	1	GW	Grab		X						21-00406
12	S-378_20210506	5/6/2021	15:20			2	1	GW	Grab		X						21-00407
13	S-273_20210506	5/6/2021	14:00			2	1	GW	Grab		X						21-00408
14	S-271_20210507	5/7/2021	08:35			2	1	GW	Grab		X						21-00409
15	ARCO-1D_20210507	5/7/2021	08:40			2	1	GW	Grab		X						21-00410
16	ARCO-2_20210507	5/7/2021	10:00			2	1	GW	Grab		X						21-00411
17	S-230_20210507	5/7/2021	10:55			2	1	GW	Grab		X						21-00412
18	ARCO-1_20210507	5/7/2021	11:00			2	1	GW	Grab		X						21-00413
19	S-418_20210507	5/7/2021	12:30			2	1	GW	Grab		X						21-00414
20	ARCO-3_20210507	5/7/2021	12:30			2	1	GW	Grab		X						21-00415

Samples Arrived: **Frozen** **In:** **Airbill Present:** **Shipping Company:**

Temperature upon Arrival: **Therm. ID:** **Airbill #:**

# of Shipping Containers: **Description:** **Custody Seals Present:** **Custody Seals Intact:**

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Dane Hopkins / Stantec			Kassidy Troxell	5/14/2021	11:00

COMMENTS:

Southeast Environmental Research Center
Environmental Analysis Research Laboratory
Biscayne Bay Campus, MSB 232
Miami, Florida 33181 (305) 348-6249

EARL CHAIN OF CUSTODY RECORD

MATRIX CODE	SDG #
1 WATER 2 SEDIMENT/SOIL 3 TISSUE 4 OTHER	M2105C

PROJECT/ASR #:	PROJECT NAME (COC ID):
CQ #0139	Former Philadelphia Refinery Annual GWS

SAMPLERS NAME/SIGNATURE:	CLIENT PI:
Dane Hopkins, Andrea Hill, Maddie Bredehoeft	Evergreen c/o Stantec
Doulton Campbell	

ITEM #	SAMPLE ID (CLIENT SAMPLE ID):	DATE	TIME	STATION LOCATION		TOTAL # of CONTAINERS	MATRIX	SAMPLE TYPE	COLLECTION TYPE	SAMPLE CONDITION	REQUESTED PARAMETERS: SUCRALOSE						FIU ID
1	S-39D_20210507	5/7/2021	14:15			2	1	GW	Grab		X						21-00416
2	S-369_20210510	5/10/2021	09:10			2	1	GW	Grab		X						21-00417
3	** RW-701_20210510	5/10/2021	12:25			2	1	GW	Grab		X						21-00418
4	S-110DSRTF_20210511	5/11/2021	09:20			2	1	GW	Grab		X						21-00419
5	S-115SRTF_20210511	5/11/2021	10:28			2	1	GW	Grab		X						21-00420
6	S-143SRTF_20210511	5/11/2021	13:50			2	1	GW	Grab		X						21-00421
7	S-440_20210512	5/12/2021	9:25			2	1	GW	Grab		X						21-00422
8	S-78SRTF_20210512	5/12/2021	8:35			2	1	GW	Grab		X						21-00423
9	S-142SRTF_20210512	5/12/2021	10:05			2	1	GW	Grab		X						21-00424
10	S-376_SL_20210512	5/12/2021	11:30			2	1	GW	Grab		X						21-00425
11	S-193_20210512	5/12/2021	14:00			2	1	GW	Grab		X						21-00426
12	S-149SRTF_20210513	5/13/2021	11:30			2	1	GW	Grab		X						21-00427
13	S-150SRTF_20210513	5/13/2021	10:15			2	1	GW	Grab		X						21-00428
14																	
15																	
16																	
17																	
18																	
19																	
20																	

Samples Arrived:	**In:**	**Airbill Present:**	**Shipping Company:**
Temperature upon Arrival:	**Therm. ID:**	**Airbill #:**	
# of Shipping Containers:	**Description:**	**Custody Seals Present:**	**Custody Seals Intact:**

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Dane Hopkins / Stantec			Kassidy Troxell	5/14/2021	11:00

COMMENTS: ** RW-701_20210510 sample was labeled RW-703_20210510 in the sample bottle.

Southeast Environmental Research Center
Environmental Analysis Research Laboratory
Biscayne Bay Campus, MSB 232
Miami, Florida 33181 (305) 348-6249

EARL CHAIN OF CUSTODY RECORD

MATRIX CODE				SDG #
1 WATER	2 SEDIMENT/SOIL	3 TISSUE	4 OTHER	M2105F

PROJECT/ASR #:	PROJECT NAME (COC ID):
CQ #0139	Former Philadelphia Refinery Annual GWS

SAMPLERS NAME/SIGNATURE:	CLIENT PI:
Dane Hopkins, Andrea Hil	Evergreen c/o Stantec

ITEM #	SAMPLE ID (CLIENT SAMPLE ID):	DATE	TIME	STATION LOCATION		TOTAL # of CONTAINERS	MATRIX	SAMPLE TYPE	COLLECTION TYPE	SAMPLE CONDITION	REQUESTED PARAMETERS: SUCRALOSE						FIU ID
1	S-472_20210514	5/14/2021	10:55			2	1	GW	Grab		X						21-00469
2	S-458_20210514	5/14/2021	12:45			2	1	GW	Grab		X						21-00470
3	MW-37_20210514	5/14/2021	13:20			2	1	GW	Grab		X						21-00471
4	S-463_20210514	5/14/2021	14:25			2	1	GW	Grab		X						21-00472
5	MW-36_20210517	5/17/2021	9:15			2	1	GW	Grab		X						21-00473
6	TW-5_20210517	5/17/2021	9:59			2	1	GW	Grab		X						21-00474
7	S-461_20210517	5/17/2021	11:12			2	1	GW	Grab		X						21-00475
8	S-75_20210517	5/17/2021	11:54			2	1	GW	Grab		X						21-00476
9	S-460_20210517	5/17/2021	13:00			2	1	GW	Grab		X						21-00477
10	S-456_20210517	5/17/2021	14:14			2	1	GW	Grab		X						21-00478
11	S-464_20210518	5/18/2021	10:10			2	1	GW	Grab		X						21-00479
12	S-466_20210518	5/18/2021	14:40			2	1	GW	Grab		X						21-00480
13	S-469_20210519	5/19/2021	8:00			2	1	GW	Grab		X						21-00481
14	S-465_20210519	5/19/2021	13:41			2	1	GW	Grab		X						21-00482
15																	
16																	
17																	
18																	
19																	
20																	

Samples Arrived: **Frozen** **In:** **Airbill Present:** **Shipping Company:**

Temperature upon Arrival: **Therm. ID:** **Airbill #:**

# of Shipping Containers: **Description:** red/white cooler **Custody Seals Present:** **Custody Seals Intact:**

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Dane Hopkins / Stantec	5/19/2021		Ingrid Ley	5/20/2021	13:45

COMMENTS:

SUCRALOSE by ONLINE SPE LC-HRMS ANALYSIS
M2489 QC REPORT

Client Sample ID	**LRB**
Sample Descriptor	
Sample ID	Q9267
FIU ID	
Sample Type	*LRB*
SDG	

Pre-analysis Dilution Factor	1.00
Analysis Dilution Factor	1.10
Total Dilution Factor	1.10
Actual Sample Volume (uL)	10000
Final Volume (uL)	11000
Matrix	
Reporting Units	ng/L
Volume Units	uL
Data File	40246

QC Batch ID	M2489
Method	Online SPE LC-HRMS
Collection Date	NA
Receive Date	NA
Sample Prep	06/17/2021
Analysis Date	06/17/2021 14:49

COMPOUND	**Conc.**	**FLAG**	**DF**	**MDL**	**RL**
SUCRALOSE		ND	1.10	12.1	36.3

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination > MDL
D Dilution
EC Exceeds Calibration

SUCRALOSE by ONLINE SPE LC-HRMS ANALYSIS
M2489 QC REPORT

Client Sample ID	LFB	LFB-D
Sample Descriptor		
Sample ID	Q9268	Q9269
FIU ID		
Sample Type	*LFB*	*LFBD*
SDG		
Pre-analysis Dilution Factor	1.00	1.00
Analysis Dilution Factor	1.10	1.10
Total Dilution Factor	1.10	1.10
Actual Sample Volume (uL)	10000	10000
Final Volume (uL)	11000	11000
Matrix		
Reporting Units	ng/L	ng/L
Volume Units	uL	uL
Data File	40247	40248
QC Batch ID	M2489	M2489
Method	Online SPE LC-HRMS	Online SPE LC-HRMS
Collection Date	NA	NA
Receive Date	NA	NA
Sample Prep	06/17/2021	06/17/2021
Analysis Date	06/17/2021 15:05	06/17/2021 15:22

COMPOUND	Conc.	FLAG	DF	MDL	RL	%Rec	FLAG	Conc.	FLAG	DF	MDL	RL	%Rec	FLAG	RPD%	FLAG
SUCRALOSE	104		1.10	12.1	36.3	94.9		103		1.10	12.1	36.3	94.1		0.836	

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination > MDL
D Dilution
EC Exceeds Calibration

SUCRALOSE by ONLINE SPE LC-HRMS ANALYSIS
M2489 QC REPORT

Client Sample ID	S-446_20210505	S-446_20210505 MS
Sample Descriptor		
Sample ID	W19450	Q9271
FIU ID	21-00397	21-00397
Sample Type	*ORIGINAL*	*LFM*
SDG	M2007A	M2007A
Pre-analysis Dilution Factor	1.00	1.00
Analysis Dilution Factor	4.40	4.40
Total Dilution Factor	4.40	4.40
Actual Sample Volume (uL)	2500	2500
Final Volume (uL)	11000	11000
Matrix	Water	Water
Reporting Units	ng/L	ng/L
Volume Units	uL	uL
Data File	40251	40252
QC Batch ID	M2489	M2489
Method	Online SPE LC-HRMS	Online SPE LC-HRMS
Collection Date	05/05/2021 10:00 AM	05/05/2021 10:00 AM
Receive Date	05/14/2021	05/14/2021
Sample Prep	06/17/2021	06/17/2021
Analysis Date	06/17/2021 16:12	06/17/2021 16:28

COMPOUND	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL	%Rec	FLAG
SUCRALOSE	103		4.40	48.4	145	549		4.40	48.4	145	101.44	

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination > MDL
D Dilution
EC Exceeds Calibration

SUCRALOSE by ONLINE SPE LC-HRMS ANALYSIS
M2489 QC REPORT

Client Sample ID	S-442_20210505	S-442_20210505 DUP
Sample Descriptor		
Sample ID	W19449	Q9270
FIU ID	21-00396	21-00396
Sample Type	*ORIGINAL*	*DUPLICATE*
SDG	M2007A	M2007A
Pre-analysis Dilution Factor	1.00	1.00
Analysis Dilution Factor	4.40	4.40
Total Dilution Factor	4.40	4.40
Actual Sample Volume (uL)	2500	2500
Final Volume (uL)	11000	11000
Matrix	Water	Water
Reporting Units	ng/L	ng/L
Volume Units	uL	uL
Data File	40249	40250
QC Batch ID	M2489	M2489
Method	Online SPE LC-HRMS	Online SPE LC-HRMS
Collection Date	05/05/2021 8:55 AM	05/05/2021 8:55 AM
Receive Date	05/14/2021	05/14/2021
Sample Prep	06/17/2021	06/17/2021
Analysis Date	06/17/2021 15:38	06/17/2021 15:55

COMPOUND	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL	RPD%	FLAG
SUCRALOSE	363		4.40	48.4	145	349		4.40	48.4	145	3.95	

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination > MDL
D Dilution
EC Exceeds Calibration

SUCRALOSE by ONLINE SPE LC-HRMS ANALYSIS
M2105C_M2489 SAMPLE REPORT

Client Sample ID	S-442_20210505	S-446_20210505	S-44_20210505
Sample Descriptor			
Sample ID	W19449	W19450	W19451
FIU ID	21-00396	21-00397	21-00398
Sample Type	*N*	*N*	*N*
SDG	M2105C	M2105C	M2105C
Pre-analysis Dilution Factor	1.00	1.00	1.00
Analysis Dilution Factor	4.40	4.40	4.40
Total Dilution Factor	4.40	4.40	4.40
Actual Sample Volume (uL)	2500	2500	2500
Final Volume (uL)	11000	11000	11000
Matrix	Water	Water	Water
Reporting Units	ng/L	ng/L	ng/L
Volume Units	uL	uL	uL
Data File	40249	40251	40253
QC Batch ID	M2489	M2489	M2489
Method	Online SPE LC-HRMS	Online SPE LC-HRMS	Online SPE LC-HRMS
Collection Date	05/05/2021 8:55 AM	05/05/2021 10:00 AM	05/05/2021 10:35 AM
Receive Date	05/14/2021	05/14/2021	05/14/2021
Sample Prep	06/17/2021	06/17/2021	06/17/2021
Analysis Date	06/17/2021 15:38	06/17/2021 16:12	06/17/2021 16:45

COMPOUND	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL
SUCRALOSE	363		4.40	48.4	145	103		4.40	48.4	145		ND	4.40	48.4	145

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination>3xMDL
D Dilution
EC Exceeds Calibration

SUCRALOSE by ONLINE SPE LC-HRMS ANALYSIS
M2105C_M2489 SAMPLE REPORT

Client Sample ID	S-445_20210505	S-50_20210505	S-396_20210505
Sample Descriptor			
Sample ID	W19452	W19453	W19454
FIU ID	21-00399	21-00400	21-00401
Sample Type	*N*	*N*	*N*
SDG	M2105C	M2105C	M2105C
Pre-analysis Dilution Factor	1.00	1.00	1.00
Analysis Dilution Factor	4.40	4.40	4.40
Total Dilution Factor	4.40	4.40	4.40
Actual Sample Volume (uL)	2500	2500	2500
Final Volume (uL)	11000	11000	11000
Matrix	Water	Water	Water
Reporting Units	ng/L	ng/L	ng/L
Volume Units	uL	uL	uL
Data File	40254	40255	40258
QC Batch ID	M2489	M2489	M2489
Method	Online SPE LC-HRMS	Online SPE LC-HRMS	Online SPE LC-HRMS
Collection Date	05/05/2021 11:35 AM	05/05/2021 1:00 PM	05/05/2021 2:15 PM
Receive Date	05/14/2021	05/14/2021	05/14/2021
Sample Prep	06/17/2021	06/17/2021	06/17/2021
Analysis Date	06/17/2021 17:01	06/17/2021 17:18	06/17/2021 18:07

COMPOUND	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL
SUCRALOSE	218		4.40	48.4	145	81.3		4.40	48.4	145		ND	4.40	48.4	145

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination>3xMDL
D Dilution
EC Exceeds Calibration

SUCRALOSE by ONLINE SPE LC-HRMS ANALYSIS
M2105C_M2489 SAMPLE REPORT

Client Sample ID	S-441_20210505	S-444_20210506	S-42I_20210506
Sample Descriptor			
Sample ID	W19455	W19456	W19457
FIU ID	21-00402	21-00403	21-00404
Sample Type	*N*	*N*	*N*
SDG	M2105C	M2105C	M2105C
Pre-analysis Dilution Factor	1.00	1.00	1.00
Analysis Dilution Factor	4.40	4.40	4.40
Total Dilution Factor	4.40	4.40	4.40
Actual Sample Volume (uL)	2500	2500	2500
Final Volume (uL)	11000	11000	11000
Matrix	Water	Water	Water
Reporting Units	ng/L	ng/L	ng/L
Volume Units	uL	uL	uL
Data File	40259	40260	40261
QC Batch ID	M2489	M2489	M2489
Method	Online SPE LC-HRMS	Online SPE LC-HRMS	Online SPE LC-HRMS
Collection Date	05/05/2021 2:45 PM	05/06/2021 8:55 AM	05/06/2021 8:25 AM
Receive Date	05/14/2021	05/14/2021	05/14/2021
Sample Prep	06/17/2021	06/17/2021	06/17/2021
Analysis Date	06/17/2021 18:24	06/17/2021 18:41	06/17/2021 18:57

COMPOUND	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL
SUCRALOSE	55.4		4.40	48.4	145	29.3	J	4.40	48.4	145		ND	4.40	48.4	145

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination>3xMDL
D Dilution
EC Exceeds Calibration

SUCRALOSE by ONLINE SPE LC-HRMS ANALYSIS
M2105C_M2489 SAMPLE REPORT

Client Sample ID	S-87I_20210506	S-449_20210506	S-378_20210506
Sample Descriptor			
Sample ID	W19458	W19459	W19460
FIU ID	21-00405	21-00406	21-00407
Sample Type	*N*	*N*	*N*
SDG	M2105C	M2105C	M2105C
Pre-analysis Dilution Factor	1.00	1.00	1.00
Analysis Dilution Factor	11.0	4.40	4.40
Total Dilution Factor	11.0	4.40	4.40
Actual Sample Volume (uL)	1000	2500	2500
Final Volume (uL)	11000	11000	11000
Matrix	Water	Water	Water
Reporting Units	ng/L	ng/L	ng/L
Volume Units	uL	uL	uL
Data File	40311	40263	40264
QC Batch ID	M2489	M2489	M2489
Method	Online SPE LC-HRMS	Online SPE LC-HRMS	Online SPE LC-HRMS
Collection Date	05/06/2021 11:55 AM	05/06/2021 12:20 PM	05/06/2021 3:20 PM
Receive Date	05/14/2021	05/14/2021	05/14/2021
Sample Prep	06/17/2021	06/17/2021	06/17/2021
Analysis Date	06/18/2021 15:39	06/17/2021 19:30	06/17/2021 19:47

COMPOUND	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL
SUCRALOSE		ND	11.0	121	363		ND	4.40	48.4	145		ND	4.40	48.4	145

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination>3xMDL
D Dilution
EC Exceeds Calibration

SUCRALOSE by ONLINE SPE LC-HRMS ANALYSIS
M2105C_M2489 SAMPLE REPORT

Client Sample ID	S-273_20210506	S-271_20210507	ARCO-1D_20210507
Sample Descriptor			
Sample ID	W19461	W19462	W19463
FIU ID	21-00408	21-00409	21-00410
Sample Type	*N*	*N*	*N*
SDG	M2105C	M2105C	M2105C
Pre-analysis Dilution Factor	1.00	1.00	1.00
Analysis Dilution Factor	4.40	4.40	4.40
Total Dilution Factor	4.40	4.40	4.40
Actual Sample Volume (uL)	2500	2500	2500
Final Volume (uL)	11000	11000	11000
Matrix	Water	Water	Water
Reporting Units	ng/L	ng/L	ng/L
Volume Units	uL	uL	uL
Data File	40265	40266	40267
QC Batch ID	M2489	M2489	M2489
Method	Online SPE LC-HRMS	Online SPE LC-HRMS	Online SPE LC-HRMS
Collection Date	05/06/2021 2:00 PM	05/07/2021 8:35 AM	05/07/2021 8:40 AM
Receive Date	05/14/2021	05/14/2021	05/14/2021
Sample Prep	06/17/2021	06/17/2021	06/17/2021
Analysis Date	06/17/2021 20:03	06/17/2021 20:20	06/17/2021 20:36

COMPOUND	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL
SUCRALOSE	74.5		4.40	48.4	145		ND	4.40	48.4	145		ND	4.40	48.4	145

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination>3xMDL
D Dilution
EC Exceeds Calibration

SUCRALOSE by ONLINE SPE LC-HRMS ANALYSIS
M2105C_M2489 SAMPLE REPORT

Client Sample ID	ARCO-2_20210507	S-230_20210507	ARCO-1_20210507
Sample Descriptor			
Sample ID	W19464	W19465	W19466
FIU ID	21-00411	21-00412	21-00413
Sample Type	*N*	*N*	*N*
SDG	M2105C	M2105C	M2105C
Pre-analysis Dilution Factor	1.00	1.00	1.00
Analysis Dilution Factor	4.40	11.0	4.40
Total Dilution Factor	4.40	11.0	4.40
Actual Sample Volume (uL)	2500	1000	2500
Final Volume (uL)	11000	11000	11000
Matrix	Water	Water	Water
Reporting Units	ng/L	ng/L	ng/L
Volume Units	uL	uL	uL
Data File	40270	40312_210618164420	40272
QC Batch ID	M2489	M2489	M2489
Method	Online SPE LC-HRMS	Online SPE LC-HRMS	Online SPE LC-HRMS
Collection Date	05/07/2021 10:00 AM	05/07/2021 10:55 AM	05/07/2021 11:00 AM
Receive Date	05/14/2021	05/14/2021	05/14/2021
Sample Prep	06/17/2021	06/17/2021	06/17/2021
Analysis Date	06/17/2021 21:26	06/18/2021 16:44	06/17/2021 21:59

COMPOUND	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL
SUCRALOSE	36.2	J	4.40	48.4	145		ND	11.0	121	363	63.5		4.40	48.4	145

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination>3xMDL
D Dilution
EC Exceeds Calibration

SUCRALOSE by ONLINE SPE LC-HRMS ANALYSIS
M2105C_M2489 SAMPLE REPORT

Client Sample ID	S-418_20210507	ARCO-3_20210507	S-39D_20210507
Sample Descriptor			
Sample ID	W19467	W19468	W19469
FIU ID	21-00414	21-00415	21-00416
Sample Type	*N*	*N*	*N*
SDG	M2105C	M2105C	M2105C
Pre-analysis Dilution Factor	1.00	1.00	1.00
Analysis Dilution Factor	4.40	4.40	4.40
Total Dilution Factor	4.40	4.40	4.40
Actual Sample Volume (uL)	2500	2500	2500
Final Volume (uL)	11000	11000	11000
Matrix	Water	Water	Water
Reporting Units	ng/L	ng/L	ng/L
Volume Units	uL	uL	uL
Data File	40273	40274	40275
QC Batch ID	M2489	M2489	M2489
Method	Online SPE LC-HRMS	Online SPE LC-HRMS	Online SPE LC-HRMS
Collection Date	05/07/2021 12:30 PM	05/07/2021 12:30 PM	05/07/2021 2:15 PM
Receive Date	05/14/2021	05/14/2021	05/14/2021
Sample Prep	06/17/2021	06/17/2021	06/17/2021
Analysis Date	06/17/2021 22:16	06/17/2021 22:32	06/17/2021 22:49

COMPOUND	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL
SUCRALOSE		ND	4.40	48.4	145	31.1	J	4.40	48.4	145		ND	4.40	48.4	145

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination>3xMDL
D Dilution
EC Exceeds Calibration

SUCRALOSE by ONLINE SPE LC-HRMS ANALYSIS
M2105C_M2489 SAMPLE REPORT

Client Sample ID	S-369_20210510	RW-703_20210510	S-110DSRTF_20210511
Sample Descriptor			
Sample ID	W19470	W19471	W19472
FIU ID	21-00417	21-00418	21-00419
Sample Type	*N*	*N*	*N*
SDG	M2105C	M2105C	M2105C
Pre-analysis Dilution Factor	1.00	1.00	1.00
Analysis Dilution Factor	4.40	4.40	4.40
Total Dilution Factor	4.40	4.40	4.40
Actual Sample Volume (uL)	2500	2500	2500
Final Volume (uL)	11000	11000	11000
Matrix	Water	Water	Water
Reporting Units	ng/L	ng/L	ng/L
Volume Units	uL	uL	uL
Data File	40276	40277	40278
QC Batch ID	M2489	M2489	M2489
Method	Online SPE LC-HRMS	Online SPE LC-HRMS	Online SPE LC-HRMS
Collection Date	05/10/2021 9:10 AM	05/10/2021 12:25 PM	05/11/2021 9:20 AM
Receive Date	05/14/2021	05/14/2021	05/14/2021
Sample Prep	06/17/2021	06/17/2021	06/17/2021
Analysis Date	06/17/2021 23:05	06/17/2021 23:22	06/17/2021 23:39

COMPOUND	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL
SUCRALOSE		ND	4.40	48.4	145	1389		4.40	48.4	145		ND	4.40	48.4	145

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination>3xMDL
D Dilution
EC Exceeds Calibration

SUCRALOSE by ONLINE SPE LC-HRMS ANALYSIS
M2491 QC REPORT

Client Sample ID	**LRB**
Sample Descriptor	
Sample ID	Q9272
FIU ID	
Sample Type	*LRB*
SDG	
Pre-analysis Dilution Factor	1.00
Analysis Dilution Factor	1.10
Total Dilution Factor	1.10
Actual Sample Volume (uL)	10000
Final Volume (uL)	11000
Matrix	
Reporting Units	ng/L
Volume Units	uL
Data File	40281
QC Batch ID	M2491
Method	Online SPE LC-HRMS
Collection Date	NA
Receive Date	NA
Sample Prep	6/17/2021
Analysis Date	06/18/2021 0:28

COMPOUND	**Conc.**	**FLAG**	**DF**	**MDL**	**RL**
SUCRALOSE	9.45	J	1.10	12.1	36.3

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination > MDL
D Dilution
EC Exceeds Calibration

SUCRALOSE by ONLINE SPE LC-HRMS ANALYSIS
M2491 QC REPORT

Client Sample ID	LFB	LFB-D
Sample Descriptor		
Sample ID	Q9273	Q9274
FIU ID		
Sample Type	*LFB*	*LFBD*
SDG		
Pre-analysis Dilution Factor	1.00	1.00
Analysis Dilution Factor	1.10	1.10
Total Dilution Factor	1.10	1.10
Actual Sample Volume (uL)	10000	10000
Final Volume (uL)	11000	11000
Matrix		
Reporting Units	ng/L	ng/L
Volume Units	uL	uL
Data File	40282	40283
QC Batch ID	M2491	M2491
Method	Online SPE LC-HRMS	Online SPE LC-HRMS
Collection Date	NA	NA
Receive Date	NA	NA
Sample Prep	6/17/2021	6/17/2021
Analysis Date	06/18/2021 0:45	06/18/2021 1:01

COMPOUND	Conc.	FLAG	DF	MDL	RL	%Rec	FLAG	Conc.	FLAG	DF	MDL	RL	%Rec	FLAG	RPD%	FLAG
SUCRALOSE	104		1.10	12.1	36.3	85.7		101		1.10	12.1	36.3	83.3		2.544	

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination > MDL
D Dilution
EC Exceeds Calibration

SUCRALOSE by ONLINE SPE LC-HRMS ANALYSIS
M2491 QC REPORT

Client Sample ID	S-115SRTF_20210511	S-115SRTF_20210511 DUP
Sample Descriptor		
Sample ID	W19473	Q9475
FIU ID	21-00420	21-00420
Sample Type	*ORIGINAL*	*DUPLICATE*
SDG	M2105C	M2105C
Pre-analysis Dilution Factor	1.00	1.00
Analysis Dilution Factor	4.40	4.40
Total Dilution Factor	4.40	4.40
Actual Sample Volume (uL)	2500	2500
Final Volume (uL)	11000	11000
Matrix	Water	Water
Reporting Units	ng/L	ng/L
Volume Units	uL	uL
Data File	40284	40285
QC Batch ID	M2491	M2491
Method	Online SPE LC-HRMS	Online SPE LC-HRMS
Collection Date	05/11/2021 10:28 AM	05/11/2021 10:28 AM
Receive Date	05/14/2021	05/14/2021
Sample Prep	6/17/2021	6/17/2021
Analysis Date	06/18/2021 1:18	06/18/2021 1:35

COMPOUND	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL	RPD%	FLAG
SUCRALOSE	22.6	J	4.40	48.4	145	34.7	J	4.40	48.4	145	41.93	Q

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination > MDL
D Dilution
EC Exceeds Calibration

SUCRALOSE by ONLINE SPE LC-HRMS ANALYSIS
M2105F_M2491 SAMPLE REPORT

Client Sample ID	S-115SRTF_20210511	S-143SRTF_20210511	S-440_20210512
Sample Descriptor			
Sample ID	W19473	W19474	W19475
FIU ID	21-00420	21-00421	21-00422
Sample Type	*N*	*N*	*N*
SDG	M2105C	M2105C	M2105C
Pre-analysis Dilution Factor	1.00	1.00	1.00
Analysis Dilution Factor	4.40	4.40	4.40
Total Dilution Factor	4.40	4.40	4.40
Actual Sample Volume (uL)	2500	2500	2500
Final Volume (uL)	11000	11000	11000
Matrix	Water	Water	Water
Reporting Units	ng/L	ng/L	ng/L
Volume Units	uL	uL	uL
Data File	40284	40286	40288
QC Batch ID	M2489	M2489	M2489
Method	Online SPE LC-HRMS	Online SPE LC-HRMS	Online SPE LC-HRMS
Collection Date	05/11/2021 10:28 AM	05/11/2021 1:50 PM	05/12/2021 9:25 AM
Receive Date	05/14/2021	05/14/2021	05/14/2021
Sample Prep	06/17/2021	06/17/2021	06/17/2021
Analysis Date	06/18/2021 1:18	06/18/2021 1:51	06/18/2021 2:24

COMPOUND	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL
SUCRALOSE	22.6	J	4.40	48.4	145		ND	4.40	48.4	145		ND	4.40	48.4	145

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination>3xMDL
D Dilution
EC Exceeds Calibration

SUCRALOSE by ONLINE SPE LC-HRMS ANALYSIS
M2105F_M2491 SAMPLE REPORT

Client Sample ID	S-78SRTF_20210512	S-142SRTF_20210512	S-376_SL_20210512
Sample Descriptor			
Sample ID	W19476	W19477	W19478
FIU ID	21-00423	21-00424	21-00425
Sample Type	*N*	*N*	*N*
SDG	M2105C	M2105C	M2105C
Pre-analysis Dilution Factor	1.00	1.00	1.00
Analysis Dilution Factor	4.40	4.40	4.40
Total Dilution Factor	4.40	4.40	4.40
Actual Sample Volume (uL)	2500	2500	2500
Final Volume (uL)	11000	11000	11000
Matrix	Water	Water	Water
Reporting Units	ng/L	ng/L	ng/L
Volume Units	uL	uL	uL
Data File	40289	40290	40291
QC Batch ID	M2489	M2489	M2489
Method	Online SPE LC-HRMS	Online SPE LC-HRMS	Online SPE LC-HRMS
Collection Date	05/12/2021 8:35 AM	05/12/2021 10:05 AM	05/12/2021 11:30 AM
Receive Date	05/14/2021	05/14/2021	05/14/2021
Sample Prep	06/17/2021	06/17/2021	06/17/2021
Analysis Date	06/18/2021 2:41	06/18/2021 2:57	06/18/2021 3:14

COMPOUND	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL
SUCRALOSE	133		4.40	48.4	145		ND	4.40	48.4	145	59.4		4.40	48.4	145

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination>3xMDL
D Dilution
EC Exceeds Calibration

SUCRALOSE by ONLINE SPE LC-HRMS ANALYSIS
M2105F_M2491 SAMPLE REPORT

Client Sample ID	S-193_20210512	S-149SRTF_20210513	S-150SRTF_20210513
Sample Descriptor			
Sample ID	W19479	W19480	W19481
FIU ID	21-00426	21-00427	21-00428
Sample Type	*N*	*N*	*N*
SDG	M2105C	M2105C	M2105C
Pre-analysis Dilution Factor	1.00	1.00	1.00
Analysis Dilution Factor	4.40	4.40	4.40
Total Dilution Factor	4.40	4.40	4.40
Actual Sample Volume (uL)	2500	2500	2500
Final Volume (uL)	11000	11000	11000
Matrix	Water	Water	Water
Reporting Units	ng/L	ng/L	ng/L
Volume Units	uL	uL	uL
Data File	40294	40295	40296
QC Batch ID	M2489	M2489	M2489
Method	Online SPE LC-HRMS	Online SPE LC-HRMS	Online SPE LC-HRMS
Collection Date	05/12/2021 2:00 PM	05/13/2021 11:30 AM	05/13/2021 10:15 AM
Receive Date	05/14/2021	05/14/2021	05/14/2021
Sample Prep	06/17/2021	06/17/2021	06/17/2021
Analysis Date	06/18/2021 10:25	06/18/2021 10:41	06/18/2021 10:58

COMPOUND	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL
SUCRALOSE		ND	4.40	48.4	145	89.7		4.40	48.4	145		ND	4.40	48.4	145

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination>3xMDL
D Dilution
EC Exceeds Calibration

SUCRALOSE by ONLINE SPE LC-HRMS ANALYSIS
M2105F_M2491 SAMPLE REPORT

Client Sample ID	S-472_20210514	S-458_20210514	MW-37_20210514
Sample Descriptor			
Sample ID	W19487	W19488	W19489
FIU ID	21-00469	21-00470	21-00471
Sample Type	*N*	*N*	*N*
SDG	M2105F	M2105F	M2105F
Pre-analysis Dilution Factor	1.00	1.00	1.00
Analysis Dilution Factor	11.0	4.40	4.40
Total Dilution Factor	11.0	4.40	4.40
Actual Sample Volume (uL)	1000	2500	2500
Final Volume (uL)	11000	11000	11000
Matrix	Water	Water	Water
Reporting Units	ng/L	ng/L	ng/L
Volume Units	uL	uL	uL
Data File	40296_210618111451	40296_210618113125	40297
QC Batch ID	M2489	M2489	M2489
Method	Online SPE LC-HRMS	Online SPE LC-HRMS	Online SPE LC-HRMS
Collection Date	05/14/2021 10:55 AM	05/14/2021 12:45 PM	05/14/2021 1:20 PM
Receive Date	05/20/2021	05/20/2021	05/20/2021
Sample Prep	06/17/2021	06/17/2021	06/17/2021
Analysis Date	06/18/2021 11:14	06/18/2021 11:31	06/18/2021 11:47

COMPOUND	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL
SUCRALOSE	129		11.0	121	363	84.1		4.40	48.4	145		ND	4.40	48.4	145

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination>3xMDL
D Dilution
EC Exceeds Calibration

SUCRALOSE by ONLINE SPE LC-HRMS ANALYSIS
M2105F_M2491 SAMPLE REPORT

Client Sample ID	S-463_20210514	MW-36_20210517	TW-5_20210517
Sample Descriptor			
Sample ID	W19490	W19491	W19492
FIU ID	21-00472	21-00473	21-00474
Sample Type	*N*	*N*	*N*
SDG	M2105F	M2105F	M2105F
Pre-analysis Dilution Factor	1.00	1.00	1.00
Analysis Dilution Factor	11.0	4.40	4.40
Total Dilution Factor	11.0	4.40	4.40
Actual Sample Volume (uL)	1000	2500	2500
Final Volume (uL)	11000	11000	11000
Matrix	Water	Water	Water
Reporting Units	ng/L	ng/L	ng/L
Volume Units	uL	uL	uL
Data File	40313	40299	40300
QC Batch ID	M2489	M2489	M2489
Method	Online SPE LC-HRMS	Online SPE LC-HRMS	Online SPE LC-HRMS
Collection Date	05/14/2021 2:25 PM	05/17/2021 9:15 AM	05/17/2021 9:59 AM
Receive Date	05/20/2021	05/20/2021	05/20/2021
Sample Prep	06/17/2021	06/17/2021	06/17/2021
Analysis Date	06/18/2021 16:27	06/18/2021 12:21	06/18/2021 12:37

COMPOUND	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL
SUCRALOSE		ND	11.0	121	363		ND	4.40	48.4	145		ND	4.40	48.4	145

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination>3xMDL
D Dilution
EC Exceeds Calibration

SUCRALOSE by ONLINE SPE LC-HRMS ANALYSIS
M2105F_M2491 SAMPLE REPORT

Client Sample ID	S-461_20210517	S-75_20210517	S-460_20210517
Sample Descriptor			
Sample ID	W19493	W19494	W19495
FIU ID	21-00475	21-00476	21-00477
Sample Type	*N*	*N*	*N*
SDG	M2105F	M2105F	M2105F
Pre-analysis Dilution Factor	1.00	1.00	1.00
Analysis Dilution Factor	4.40	4.40	4.40
Total Dilution Factor	4.40	4.40	4.40
Actual Sample Volume (uL)	2500	2500	2500
Final Volume (uL)	11000	11000	11000
Matrix	Water	Water	Water
Reporting Units	ng/L	ng/L	ng/L
Volume Units	uL	uL	uL
Data File	40301	40304	40305
QC Batch ID	M2489	M2489	M2489
Method	Online SPE LC-HRMS	Online SPE LC-HRMS	Online SPE LC-HRMS
Collection Date	05/17/2021 11:12 AM	05/17/2021 11:54 AM	05/17/2021 1:00 PM
Receive Date	05/20/2021	05/20/2021	05/20/2021
Sample Prep	06/17/2021	06/17/2021	06/17/2021
Analysis Date	06/18/2021 12:54	06/18/2021 13:43	06/18/2021 14:00

COMPOUND	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL
SUCRALOSE		ND	4.40	48.4	145	172		4.40	48.4	145	43.2	J	4.40	48.4	145

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination>3xMDL
D Dilution
EC Exceeds Calibration

SUCRALOSE by ONLINE SPE LC-HRMS ANALYSIS
M2105F_M2491 SAMPLE REPORT

Client Sample ID	S-456_20210517	S-464_20210518	S-466_20210518
Sample Descriptor			
Sample ID	W19496	W19497	W19498
FIU ID	21-00478	21-00479	21-00480
Sample Type	*N*	*N*	*N*
SDG	M2105F	M2105F	M2105F
Pre-analysis Dilution Factor	1.00	1.00	1.00
Analysis Dilution Factor	4.40	4.40	4.40
Total Dilution Factor	4.40	4.40	4.40
Actual Sample Volume (uL)	2500	2500	2500
Final Volume (uL)	11000	11000	11000
Matrix	Water	Water	Water
Reporting Units	ng/L	ng/L	ng/L
Volume Units	uL	uL	uL
Data File	40306	40307	40308
QC Batch ID	M2489	M2489	M2489
Method	Online SPE LC-HRMS	Online SPE LC-HRMS	Online SPE LC-HRMS
Collection Date	05/17/2021 2:14 PM	05/18/2021 10:10 AM	05/18/2021 2:40 PM
Receive Date	05/20/2021	05/20/2021	05/20/2021
Sample Prep	06/17/2021	06/17/2021	06/17/2021
Analysis Date	06/18/2021 14:16	06/18/2021 14:33	06/18/2021 14:50

COMPOUND	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL
SUCRALOSE	833		4.40	48.4	145		ND	4.40	48.4	145		ND	4.40	48.4	145

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination>3xMDL
D Dilution
EC Exceeds Calibration

SUCRALOSE by ONLINE SPE LC-HRMS ANALYSIS
M2105F_M2491 SAMPLE REPORT

Client Sample ID	S-469_20210519	S-465_20210519
Sample Descriptor		
Sample ID	W19499	W19500
FIU ID	21-00481	21-00482
Sample Type	*N*	*N*
SDG	M2105F	M2105F
Pre-analysis Dilution Factor	1.00	1.00
Analysis Dilution Factor	4.40	4.40
Total Dilution Factor	4.40	4.40
Actual Sample Volume (uL)	2500	2500
Final Volume (uL)	11000	11000
Matrix	Water	Water
Reporting Units	ng/L	ng/L
Volume Units	uL	uL
Data File	40309	40310
QC Batch ID	M2489	M2489
Method	Online SPE LC-HRMS	Online SPE LC-HRMS
Collection Date	05/19/2021 8:00 AM	05/19/2021 1:41 PM
Receive Date	05/20/2021	05/20/2021
Sample Prep	06/17/2021	06/17/2021
Analysis Date	06/18/2021 15:06	06/18/2021 15:23

COMPOUND	Concentration	FLAG	DF	MDL	RL	Concentration	FLAG	DF	MDL	RL
SUCRALOSE	150		4.40	48.4	145		ND	4.40	48.4	145

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination>3xMDL
D Dilution
EC Exceeds Calibration

Miscellaneous Laboratory Sample Logbook

MATRIX: WATER ☑ SEDIMENT ☐ TISSUE: _____ OTHER: _____

PROJECT: SUCRALOSE PI:

ANALYSIS: PAH ☐ ALIPHATICS ☐ OCPEST ☐ PCB ☐ N-PEST ☐ OP ☐ PHARMA ☐
PHENOXY ☐ FLUORESCENCE ☐ DOSS ☐ ANTIBIOTICS ☐ Other: _____

FINAL SOLVENT: LC WATER FINAL VOLUME: 11 mL Amber ☐ Clear ☑

FIU EARL Environmental Analysis Research Laboratory

Surrogates	Vol. (uL)	Fortification	Vol. (uL)	Internal Standard	Vol. (uL)
		SUC-CAL 210602	100	SUC-DB 210519	100

COMMENTS: M2105C

	Sample ID	Client Descriptor	Vol. (uL) ~~Wet Wt. (g)~~	Dry Wt (%)	Dry Wt (g)	FIU ID	Comments
1	Q9267	LRB	10000				
2	Q9268	LFB	↓				
3	Q9269	LFB-D	↓				
4	Q9270	S-442 DUP	2500				
5	Q9271	S-446 MS	↓				*Failed
6	W19449	S-442	↓			21-00396	"
7	W19450	S-446	↓			397	
8	W19451	S-44	↓			398	
9	W19452	S-445	↓			399	
10	W19453	S-50	↓			400	
11	W19454	S-396	↓			401	
12	W19455	S-441	↓			402	
13	W19456	S-444	↓			403	
14	W19457	S-421	↓			404	
15	W19458	S-871	1000			405	
16	W19459	S-449	2500			406	
17	W19460	S-378	↓			407	

Process	Date	Initials
Received	5/14/21	IZL
Sample Prep.		
Spike Witness		
Extraction		
Concentration		
_____ Cleanup		
Concentration		
_____ Cleanup		
Concentration		
_____ Cleanup		
Concentration		
GC/_____ Prep		
GC/_____ Prep		
LC/~~MS~~ HR Prep	6/18/21	IZL
Quant/Audit		
Final Report		
Final Report		

Lab Manager	QC Auditor	Sample Storage Information	Miscellaneous Information
Initials: Date:	Initials: Date:		

M 2489

Continue →

Miscellaneous Laboratory Sample Logbook

MATRIX			
WATER ☐	PROJECT:	PI:	FIU EARL Environmental Analysis Research Laboratory
SEDIMENT ☐	ANALYSIS: PAH ☐ ALIPHATICS ☐ OCPEST ☐ PCB ☐ N-PEST ☐ OP ☐ PHARMA ☐		
TISSUE: _____	PHENOXY ☐ FLUORESCENCE ☐ DOSS ☐ ANTIBIOTICS ☐ Other: _____		
OTHER: _____	FINAL SOLVENT: _____	FINAL VOLUME: _____	Amber ☐ Clear ☐

Surrogates	Vol. (uL)	Fortification	Vol. (uL)	Internal Standard	Vol. (uL)	COMMENTS:

	Sample ID	Client Descriptor	Vol. (uL) Wet Wt. (g)	Dry Wt (%)	Dry Wt (g)	FIU ID	Comments
1	W19461	S-273	2500			21-00408	
2	W19462	S-271	↓			409	
3	W19463	ARCO-1D				410	
4	W19464	ARCO-2	↓			411	
5	W19465	S-230	1000			412	
6	W19466	ARCO-1	2500			413	
7	W19467	S-418	↓			414	
8	W19468	ARCO-3				415	
9	W19469	S-39D				416	
10	W19470	S-369				417	
11	W19471	RW-701				418	
12	W19472	S-110DSRTF	↓			↓ 419	
13							
14							
15							
16							
17							

Process	Date	Initials
Received		
Sample Prep.		
Spike Witness		
Extraction		
Concentration		
_____ Cleanup		
Concentration		
_____ Cleanup		
Concentration		
_____ Cleanup		
Concentration		
GC/_____ Prep		
GC/_____ Prep		
LC/_____ Prep		
Quant/Audit		
Final Report		
Final Report		

Lab Manager	QC Auditor	Sample Storage Information	Miscellaneous Information
Initials: Date:	Initials: Date:		

M 2490

Cont. from M2489

Miscellaneous Laboratory Sample Logbook

MATRIX: WATER ☑ SEDIMENT ☐ TISSUE: _____ OTHER: _____

PROJECT: SUCRALOSE - STANTEC PI:

ANALYSIS: PAH ☐ ALIPHATICS ☐ OCPEST ☐ PCB ☐ N-PEST ☐ OP ☐ PHARMA ☐
PHENOXY ☐ FLUORESCENCE ☐ DOSS ☐ ANTIBIOTICS ☐ Other: _____

FINAL SOLVENT: LC WATER FINAL VOLUME: 11 mL Amber ☐ Clear ☒

FIU EARL Environmental Analysis Research Laboratory

Surrogates	Vol. (uL)	Fortification	Vol. (uL)	Internal Standard	Vol. (uL)
		SUC-CAL 210682	100	SUC-D6 210519	100

COMMENTS: M2105C M2105F

	Sample ID	Client Descriptor	Vol. (uL) ~~Wet Wt. (g)~~	Dry Wt (%)	Dry Wt (g)	FIU ID	Comments
1	Q9272	LRB	10000				
2	Q9273	LFB	↓				
3	Q9274	LFB-D	↓				
4	Q9275	S-115SRTF DUP	2500				
5	Q9276	——— MS	NA				Failed
6	W19473	S-115SRTF	2500			21-00420	
7	W19474	S-143SRTF	↓			421	
8	W19475	S-440	↓			422	
9	W19476	S-78SRTF	↓			423	
10	W19477	S-142SRTF	↓			424	
11	W19478	S-376	↓			425	
12	W19479	S-193	↓			426	
13	W19480	S-149SRTF	↓			427	
14	W19481	S-150SRTF	↓			428	
15	W19487*	S-472-~~20~~ 80	1000			429	
16	W19488	S-458	2500			470	
17	W19489	MW-37	↓			471	

Process	Date	Initials
Received	5/14/21 ~~5/20/21~~	KS
Sample Prep.		
Spike Witness		
Extraction		
Concentration		
_____ Cleanup		
Concentration		
_____ Cleanup		
Concentration		
_____ Cleanup		
Concentration		
GC/_____ Prep		
GC/_____ Prep		
LC/ HR MS Prep	6/17/21	JRL
Quant/Audit		
Final Report		
Final Report		

Lab Manager	QC Auditor	Sample Storage Information	Miscellaneous Information
Initials: Date:	Initials: Date:		

M 2491

Continue →

Miscellaneous Laboratory Sample Logbook

MATRIX			
WATER ☐	PROJECT:	PI:	FIU EARL Environmental Analysis Research Laboratory
SEDIMENT ☐	ANALYSIS: PAH ☐ ALIPHATICS ☐ OCPEST ☐ PCB ☐ N-PEST ☐ OP ☐ PHARMA ☐		
TISSUE: _____	PHENOXY ☐ FLUORESCENCE ☐ DOSS ☐ ANTIBIOTICS ☐ Other: _____		
OTHER: _____	FINAL SOLVENT: _____	FINAL VOLUME: _____	Amber ☐ Clear ☐

Surrogates	Vol. (uL)	Fortification	Vol. (uL)	Internal Standard	Vol. (uL)	COMMENTS:

	Sample ID	Client Descriptor	Vol. (uL) ~~Wet Wt. (g)~~	Dry Wt (%)	Dry Wt (g)	FIU ID	Comments
1	W19490	S-463	1000			21-00472	
2	W19491	~~TW-5~~ MW-36	2500			473	
3	W19492	~~S-461~~ TW-5				474	
4	W19493	~~S-75~~ S-461				475	
5	W19494	~~S-460~~ S-75				476	
6	W19495	S-460				477	
7	W19496	S-456				478	
8	W19497	S-464				479	
9	W19498	S-466				480	
10	W19499	S-469				481	
11	W19500	S-465				482	
12	~~W19501~~	~~S-465~~					
13							
14							
15							
16							
17							

Process	Date	Initials
Received		
Sample Prep.		
Spike Wittness		
Extraction		
Concentration		
_____ Cleanup		
Concentration		
_____ Cleanup		
Concentration		
_____ Cleanup		
Concentration		
GC/_____ Prep		
GC/_____ Prep		
LC/_____ Prep		
Quant/Audit		
Final Report		
Final Report		

Lab Manager	QC Auditor	Sample Storage Information	Miscellaneous Information
Initials: Date:	Initials: Date:		

07/01/12

M 2492

Continue from M2491

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

December 19, 2019

Jianwu Tang
Pace Analytical Energy Services
220 William Pitt Way
Pittsburgh, PA 15238

RE: Project: 32357
Pace Project No.: 30340458

Dear Jianwu Tang:
Enclosed are the analytical results for sample(s) received by the laboratory on December 12, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

David A. Pichette
david.pichette@pacelabs.com
(724)850-5617
Project Manager

Enclosures

cc: Mark Mikesell, Pace Analytical Energy Services
Ms. Ruth Welsh, Pace Analytical Energy Services

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Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: 32357
Pace Project No.: 30340458

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

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Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: 32357
Pace Project No.: 30340458

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30340458001	**S-223-CSIA_20191204**	Water	12/04/19 13:45	12/12/19 15:45
30340458002	**Penrose System Effluent**	Water	12/05/19 09:35	12/12/19 15:45

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SAMPLE ANALYTE COUNT

Project: 32357
Pace Project No.: 30340458

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30340458001	**S-223-CSIA_20191204**	EPA 8260B	LEL	64	PASI-PA
30340458002	**Penrose System Effluent**	EPA 8260B	LEL	64	PASI-PA

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Greensburg, PA 15601
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PROJECT NARRATIVE

Project: 32357
Pace Project No.: 30340458

Method: **EPA 8260B**
Description: 8260B MSV
Client: Pace Analytical Energy Services, LLC
Date: December 19, 2019

General Information:
2 samples were analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 375827

L1: Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.

- LCS (Lab ID: 1822983)
  - 1,4-Dioxane (p-Dioxane)
  - 2-Butanone (MEK)
  - 4-Methyl-2-pentanone (MIBK)
  - Acetone

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 375827

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30340284007

ML: Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.

- MSD (Lab ID: 1822985)
  - Methyl-tert-butyl ether

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 32357
Pace Project No.: 30340458

Method: **EPA 8260B**
Description: 8260B MSV
Client: Pace Analytical Energy Services, LLC
Date: December 19, 2019

This data package has been reviewed for quality and completeness and is approved for release.

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Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 32357
Pace Project No.: 30340458

Sample: S-223-CSIA_20191204 **Lab ID: 30340458001** Collected: 12/04/19 13:45 Received: 12/12/19 15:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B								
Acetone	**10.1**	ug/L	10.0	5.6	1		12/17/19 20:40	67-64-1	L1
tert-Amylmethyl ether	**1.0 U**	ug/L	1.0	0.27	1		12/17/19 20:40	994-05-8	
Benzene	**3450**	ug/L	20.0	6.8	20		12/17/19 21:04	71-43-2	
Bromochloromethane	**1.0 U**	ug/L	1.0	0.48	1		12/17/19 20:40	74-97-5	
Bromodichloromethane	**1.0 U**	ug/L	1.0	0.35	1		12/17/19 20:40	75-27-4	
Bromoform	**1.0 U**	ug/L	1.0	0.56	1		12/17/19 20:40	75-25-2	
Bromomethane	**1.0 U**	ug/L	1.0	0.73	1		12/17/19 20:40	74-83-9	
2-Butanone (MEK)	**10.0 U**	ug/L	10.0	1.5	1		12/17/19 20:40	78-93-3	L1
tert-Butyl Alcohol	**297**	ug/L	5.0	4.3	1		12/17/19 20:40	75-65-0	
Carbon disulfide	**1.0 U**	ug/L	1.0	0.32	1		12/17/19 20:40	75-15-0	
Carbon tetrachloride	**1.0 U**	ug/L	1.0	0.44	1		12/17/19 20:40	56-23-5	
Chlorobenzene	**1.0 U**	ug/L	1.0	0.26	1		12/17/19 20:40	108-90-7	
Chloroethane	**1.0 U**	ug/L	1.0	0.64	1		12/17/19 20:40	75-00-3	
Chloroform	**1.0 U**	ug/L	1.0	0.39	1		12/17/19 20:40	67-66-3	
Chloromethane	**1.0 U**	ug/L	1.0	0.40	1		12/17/19 20:40	74-87-3	
Dibromochloromethane	**1.0 U**	ug/L	1.0	0.43	1		12/17/19 20:40	124-48-1	
1,2-Dichlorobenzene	**1.0 U**	ug/L	1.0	0.38	1		12/17/19 20:40	95-50-1	
1,3-Dichlorobenzene	**1.0 U**	ug/L	1.0	0.45	1		12/17/19 20:40	541-73-1	
1,4-Dichlorobenzene	**1.0 U**	ug/L	1.0	0.48	1		12/17/19 20:40	106-46-7	
1,1-Dichloroethane	**1.0 U**	ug/L	1.0	0.24	1		12/17/19 20:40	75-34-3	
1,2-Dichloroethane	**1.0 U**	ug/L	1.0	0.33	1		12/17/19 20:40	107-06-2	
1,2-Dichloroethene (Total)	**2.0 U**	ug/L	2.0	0.66	1		12/17/19 20:40	540-59-0	
1,1-Dichloroethene	**1.0 U**	ug/L	1.0	0.24	1		12/17/19 20:40	75-35-4	
cis-1,2-Dichloroethene	**1.0 U**	ug/L	1.0	0.38	1		12/17/19 20:40	156-59-2	
trans-1,2-Dichloroethene	**1.0 U**	ug/L	1.0	0.28	1		12/17/19 20:40	156-60-5	
1,2-Dichloropropane	**1.0 U**	ug/L	1.0	0.28	1		12/17/19 20:40	78-87-5	
cis-1,3-Dichloropropene	**1.0 U**	ug/L	1.0	0.29	1		12/17/19 20:40	10061-01-5	
trans-1,3-Dichloropropene	**1.0 U**	ug/L	1.0	0.32	1		12/17/19 20:40	10061-02-6	
Diisopropyl ether	**1.0 U**	ug/L	1.0	0.26	1		12/17/19 20:40	108-20-3	
1,4-Dioxane (p-Dioxane)	**100 U**	ug/L	100	75.3	1		12/17/19 20:40	123-91-1	L1
Ethylbenzene	**822**	ug/L	20.0	8.0	20		12/17/19 21:04	100-41-4	
Ethyl-tert-butyl ether	**1.0 U**	ug/L	1.0	0.29	1		12/17/19 20:40	637-92-3	
2-Hexanone	**10.0 U**	ug/L	10.0	0.58	1		12/17/19 20:40	591-78-6	
Methylene Chloride	**1.0 U**	ug/L	1.0	0.64	1		12/17/19 20:40	75-09-2	
4-Methyl-2-pentanone (MIBK)	**10.0 U**	ug/L	10.0	0.42	1		12/17/19 20:40	108-10-1	L1
Methyl-tert-butyl ether	**1.0 U**	ug/L	1.0	0.25	1		12/17/19 20:40	1634-04-4	
Naphthalene	**336**	ug/L	2.0	0.82	1		12/17/19 20:40	91-20-3	
Styrene	**4.1**	ug/L	1.0	0.33	1		12/17/19 20:40	100-42-5	
1,1,2,2-Tetrachloroethane	**1.0 U**	ug/L	1.0	0.47	1		12/17/19 20:40	79-34-5	
Tetrachloroethene	**1.0 U**	ug/L	1.0	0.39	1		12/17/19 20:40	127-18-4	
Toluene	**268**	ug/L	1.0	0.32	1		12/17/19 20:40	108-88-3	
1,2,4-Trichlorobenzene	**1.0 U**	ug/L	1.0	0.73	1		12/17/19 20:40	120-82-1	
1,1,1-Trichloroethane	**1.0 U**	ug/L	1.0	0.38	1		12/17/19 20:40	71-55-6	
1,1,2-Trichloroethane	**1.0 U**	ug/L	1.0	0.33	1		12/17/19 20:40	79-00-5	
Trichloroethene	**1.0 U**	ug/L	1.0	0.29	1		12/17/19 20:40	79-01-6	
1,1,2-Trichlorotrifluoroethane	**50.0 U**	ug/L	50.0	3.0	1		12/17/19 20:40	76-13-1	

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ANALYTICAL RESULTS

Project: 32357
Pace Project No.: 30340458

Sample: S-223-CSIA_20191204 **Lab ID: 30340458001** Collected: 12/04/19 13:45 Received: 12/12/19 15:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B								
Vinyl chloride	**1.0 U**	ug/L	1.0	0.29	1		12/17/19 20:40	75-01-4	
Xylene (Total)	**1630**	ug/L	60.0	27.0	20		12/17/19 21:04	1330-20-7	
m&p-Xylene	**1490**	ug/L	40.0	18.8	20		12/17/19 21:04	179601-23-1	
o-Xylene	**131**	ug/L	1.0	0.41	1		12/17/19 20:40	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%.	78-122		1		12/17/19 20:40	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%.	80-120		1		12/17/19 20:40	17060-07-0	
Toluene-d8 (S)	103	%.	80-120		1		12/17/19 20:40	2037-26-5	
Dibromofluoromethane (S)	90	%.	80-120		1		12/17/19 20:40	1868-53-7	
Tentatively Identified Compounds									
Unknown Alkane	**11.9J**	ug/L			1		12/17/19 20:40		
Unknown Alkane	**21.3J**	ug/L			1		12/17/19 20:40		
1-Butene	**11.0J**	ug/L			1		12/17/19 20:40	106-98-9	N
1-Butene	**5.5J**	ug/L			1		12/17/19 20:40	106-98-9	N
Butane, 2-methyl-	**32.0J**	ug/L			1		12/17/19 20:40	78-78-4	N
Pentane	**14.6J**	ug/L			1		12/17/19 20:40	109-66-0	N
2-Pentene, (Z)-	**4.9J**	ug/L			1		12/17/19 20:40	627-20-3	N
Cyclopropane, 1,2-dimeth	**19.1J**	ug/L			1		12/17/19 20:40	930-18-7	N
Cyclopentene	**12.0J**	ug/L			1		12/17/19 20:40	142-29-0	N
Unknown Alkane	**24.0J**	ug/L			1		12/17/19 20:40		

Sample: Penrose System Effluent **Lab ID: 30340458002** Collected: 12/05/19 09:35 Received: 12/12/19 15:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B								
Acetone	**39.4**	ug/L	10.0	5.6	1		12/17/19 21:29	67-64-1	L1
tert-Amylmethyl ether	**1.0 U**	ug/L	1.0	0.27	1		12/17/19 21:29	994-05-8	
Benzene	**8290**	ug/L	50.0	16.9	50		12/18/19 22:59	71-43-2	
Bromochloromethane	**1.0 U**	ug/L	1.0	0.48	1		12/17/19 21:29	74-97-5	
Bromodichloromethane	**1.0 U**	ug/L	1.0	0.35	1		12/17/19 21:29	75-27-4	
Bromoform	**1.0 U**	ug/L	1.0	0.56	1		12/17/19 21:29	75-25-2	
Bromomethane	**1.0 U**	ug/L	1.0	0.73	1		12/17/19 21:29	74-83-9	
2-Butanone (MEK)	**10.0 U**	ug/L	10.0	1.5	1		12/17/19 21:29	78-93-3	L1
tert-Butyl Alcohol	**528**	ug/L	5.0	4.3	1		12/17/19 21:29	75-65-0	
Carbon disulfide	**1.0 U**	ug/L	1.0	0.32	1		12/17/19 21:29	75-15-0	
Carbon tetrachloride	**1.0 U**	ug/L	1.0	0.44	1		12/17/19 21:29	56-23-5	
Chlorobenzene	**1.0 U**	ug/L	1.0	0.26	1		12/17/19 21:29	108-90-7	
Chloroethane	**1.0 U**	ug/L	1.0	0.64	1		12/17/19 21:29	75-00-3	
Chloroform	**1.0 U**	ug/L	1.0	0.39	1		12/17/19 21:29	67-66-3	
Chloromethane	**1.0 U**	ug/L	1.0	0.40	1		12/17/19 21:29	74-87-3	
Dibromochloromethane	**1.0 U**	ug/L	1.0	0.43	1		12/17/19 21:29	124-48-1	
1,2-Dichlorobenzene	**0.76J**	ug/L	1.0	0.38	1		12/17/19 21:29	95-50-1	
1,3-Dichlorobenzene	**1.0 U**	ug/L	1.0	0.45	1		12/17/19 21:29	541-73-1	

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ANALYTICAL RESULTS

Project: 32357
Pace Project No.: 30340458

Sample: Penrose System Effluent **Lab ID: 30340458002** Collected: 12/05/19 09:35 Received: 12/12/19 15:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B								
1,4-Dichlorobenzene	**1.0 U**	ug/L	1.0	0.48	1		12/17/19 21:29	106-46-7	
1,1-Dichloroethane	**1.0 U**	ug/L	1.0	0.24	1		12/17/19 21:29	75-34-3	
1,2-Dichloroethane	**1.0 U**	ug/L	1.0	0.33	1		12/17/19 21:29	107-06-2	
1,2-Dichloroethene (Total)	**2.0 U**	ug/L	2.0	0.66	1		12/17/19 21:29	540-59-0	
1,1-Dichloroethene	**1.0 U**	ug/L	1.0	0.24	1		12/17/19 21:29	75-35-4	
cis-1,2-Dichloroethene	**1.0 U**	ug/L	1.0	0.38	1		12/17/19 21:29	156-59-2	
trans-1,2-Dichloroethene	**1.0 U**	ug/L	1.0	0.28	1		12/17/19 21:29	156-60-5	
1,2-Dichloropropane	**1.0 U**	ug/L	1.0	0.28	1		12/17/19 21:29	78-87-5	
cis-1,3-Dichloropropene	**1.0 U**	ug/L	1.0	0.29	1		12/17/19 21:29	10061-01-5	
trans-1,3-Dichloropropene	**1.0 U**	ug/L	1.0	0.32	1		12/17/19 21:29	10061-02-6	
Diisopropyl ether	**1.0 U**	ug/L	1.0	0.26	1		12/17/19 21:29	108-20-3	
1,4-Dioxane (p-Dioxane)	**100 U**	ug/L	100	75.3	1		12/17/19 21:29	123-91-1	L1
Ethylbenzene	**566**	ug/L	20.0	8.0	20		12/17/19 21:54	100-41-4	
Ethyl-tert-butyl ether	**1.0 U**	ug/L	1.0	0.29	1		12/17/19 21:29	637-92-3	
2-Hexanone	**10.0 U**	ug/L	10.0	0.58	1		12/17/19 21:29	591-78-6	
Methylene Chloride	**1.0 U**	ug/L	1.0	0.64	1		12/17/19 21:29	75-09-2	
4-Methyl-2-pentanone (MIBK)	**10.0 U**	ug/L	10.0	0.42	1		12/17/19 21:29	108-10-1	L1
Methyl-tert-butyl ether	**339**	ug/L	1.0	0.25	1		12/17/19 21:29	1634-04-4	
Naphthalene	**340**	ug/L	2.0	0.82	1		12/17/19 21:29	91-20-3	
Styrene	**1.0 U**	ug/L	1.0	0.33	1		12/17/19 21:29	100-42-5	
1,1,2,2-Tetrachloroethane	**1.0 U**	ug/L	1.0	0.47	1		12/17/19 21:29	79-34-5	
Tetrachloroethene	**1.0 U**	ug/L	1.0	0.39	1		12/17/19 21:29	127-18-4	
Toluene	**3860**	ug/L	20.0	6.3	20		12/17/19 21:54	108-88-3	
1,2,4-Trichlorobenzene	**1.0 U**	ug/L	1.0	0.73	1		12/17/19 21:29	120-82-1	
1,1,1-Trichloroethane	**1.0 U**	ug/L	1.0	0.38	1		12/17/19 21:29	71-55-6	
1,1,2-Trichloroethane	**1.0 U**	ug/L	1.0	0.33	1		12/17/19 21:29	79-00-5	
Trichloroethene	**1.0 U**	ug/L	1.0	0.29	1		12/17/19 21:29	79-01-6	
1,1,2-Trichlorotrifluoroethane	**50.0 U**	ug/L	50.0	3.0	1		12/17/19 21:29	76-13-1	
Vinyl chloride	**1.0 U**	ug/L	1.0	0.29	1		12/17/19 21:29	75-01-4	
Xylene (Total)	**3300**	ug/L	60.0	27.0	20		12/17/19 21:54	1330-20-7	
m&p-Xylene	**2440**	ug/L	40.0	18.8	20		12/17/19 21:54	179601-23-1	
o-Xylene	**862**	ug/L	20.0	8.2	20		12/17/19 21:54	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%.	78-122		1		12/17/19 21:29	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%.	80-120		1		12/17/19 21:29	17060-07-0	
Toluene-d8 (S)	104	%.	80-120		1		12/17/19 21:29	2037-26-5	
Dibromofluoromethane (S)	94	%.	80-120		1		12/17/19 21:29	1868-53-7	
Tentatively Identified Compounds									
Unknown Alkane	**6.0J**	ug/L			1		12/17/19 21:29		
Unknown Alkane	**21.4J**	ug/L			1		12/17/19 21:29		
1-Butene	**22.7J**	ug/L			1		12/17/19 21:29	106-98-9	N
1-Butene	**13.8J**	ug/L			1		12/17/19 21:29	106-98-9	N
Butane, 2-methyl-	**13.4J**	ug/L			1		12/17/19 21:29	78-78-4	N
Pentane $$ n-Pentane $$	**12.5J**	ug/L			1		12/17/19 21:29	109-66-0	N
2-Pentene, (Z)-	**15.2J**	ug/L			1		12/17/19 21:29	627-20-3	N
1-Butene, 2-methyl-	**10.7J**	ug/L			1		12/17/19 21:29	563-46-2	N

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ANALYTICAL RESULTS

Project: 32357
Pace Project No.: 30340458

Sample: Penrose System Effluent **Lab ID: 30340458002** Collected: 12/05/19 09:35 Received: 12/12/19 15:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B								
Tentatively Identified Compounds									
Cyclopropane, 1,2-dimeth	**25.7J**	ug/L			1		12/17/19 21:29	930-18-7	N
Cyclopentene	**22.8J**	ug/L			1		12/17/19 21:29	142-29-0	N

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QUALITY CONTROL DATA

Project: 32357
Pace Project No.: 30340458

QC Batch: 375827 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260B MSV
Associated Lab Samples: 30340458001, 30340458002

METHOD BLANK: 1822982 Matrix: Water
Associated Lab Samples: 30340458001, 30340458002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	1.0 U	1.0	0.38	12/17/19 12:41	
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0	0.47	12/17/19 12:41	
1,1,2-Trichloroethane	ug/L	1.0 U	1.0	0.33	12/17/19 12:41	
1,1,2-Trichlorotrifluoroethane	ug/L	50.0 U	50.0	3.0	12/17/19 12:41	
1,1-Dichloroethane	ug/L	1.0 U	1.0	0.24	12/17/19 12:41	
1,1-Dichloroethene	ug/L	1.0 U	1.0	0.24	12/17/19 12:41	
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0	0.73	12/17/19 12:41	
1,2-Dichlorobenzene	ug/L	1.0 U	1.0	0.38	12/17/19 12:41	
1,2-Dichloroethane	ug/L	1.0 U	1.0	0.33	12/17/19 12:41	
1,2-Dichloroethene (Total)	ug/L	2.0 U	2.0	0.66	12/17/19 12:41	
1,2-Dichloropropane	ug/L	1.0 U	1.0	0.28	12/17/19 12:41	
1,3-Dichlorobenzene	ug/L	1.0 U	1.0	0.45	12/17/19 12:41	
1,4-Dichlorobenzene	ug/L	1.0 U	1.0	0.48	12/17/19 12:41	
1,4-Dioxane (p-Dioxane)	ug/L	100 U	100	75.3	12/17/19 12:41	
2-Butanone (MEK)	ug/L	10.0 U	10.0	1.5	12/17/19 12:41	
2-Hexanone	ug/L	10.0 U	10.0	0.58	12/17/19 12:41	
4-Methyl-2-pentanone (MIBK)	ug/L	10.0 U	10.0	0.42	12/17/19 12:41	
Acetone	ug/L	10.0 U	10.0	5.6	12/17/19 12:41	
Benzene	ug/L	1.0 U	1.0	0.34	12/17/19 12:41	
Bromochloromethane	ug/L	1.0 U	1.0	0.48	12/17/19 12:41	
Bromodichloromethane	ug/L	1.0 U	1.0	0.35	12/17/19 12:41	
Bromoform	ug/L	1.0 U	1.0	0.56	12/17/19 12:41	
Bromomethane	ug/L	0.94J	1.0	0.73	12/17/19 12:41	
Carbon disulfide	ug/L	1.0 U	1.0	0.32	12/17/19 12:41	
Carbon tetrachloride	ug/L	1.0 U	1.0	0.44	12/17/19 12:41	
Chlorobenzene	ug/L	1.0 U	1.0	0.26	12/17/19 12:41	
Chloroethane	ug/L	1.0 U	1.0	0.64	12/17/19 12:41	
Chloroform	ug/L	1.0 U	1.0	0.39	12/17/19 12:41	
Chloromethane	ug/L	1.0 U	1.0	0.40	12/17/19 12:41	
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0	0.38	12/17/19 12:41	
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0	0.29	12/17/19 12:41	
Dibromochloromethane	ug/L	1.0 U	1.0	0.43	12/17/19 12:41	
Diisopropyl ether	ug/L	1.0 U	1.0	0.26	12/17/19 12:41	
Ethyl-tert-butyl ether	ug/L	1.0 U	1.0	0.29	12/17/19 12:41	
Ethylbenzene	ug/L	1.0 U	1.0	0.40	12/17/19 12:41	
m&p-Xylene	ug/L	2.0 U	2.0	0.94	12/17/19 12:41	
Methyl-tert-butyl ether	ug/L	1.0 U	1.0	0.25	12/17/19 12:41	
Methylene Chloride	ug/L	1.0 U	1.0	0.64	12/17/19 12:41	
Naphthalene	ug/L	2.0 U	2.0	0.82	12/17/19 12:41	
o-Xylene	ug/L	1.0 U	1.0	0.41	12/17/19 12:41	
Styrene	ug/L	1.0 U	1.0	0.33	12/17/19 12:41	

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REPORT OF LABORATORY ANALYSIS

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1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 32357
Pace Project No.: 30340458

METHOD BLANK: 1822982 Matrix: Water
Associated Lab Samples: 30340458001, 30340458002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
tert-Amylmethyl ether	ug/L	1.0 U	1.0	0.27	12/17/19 12:41	
tert-Butyl Alcohol	ug/L	5.0 U	5.0	4.3	12/17/19 12:41	
Tetrachloroethene	ug/L	1.0 U	1.0	0.39	12/17/19 12:41	
Toluene	ug/L	1.0 U	1.0	0.32	12/17/19 12:41	
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0	0.28	12/17/19 12:41	
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0	0.32	12/17/19 12:41	
Trichloroethene	ug/L	1.0 U	1.0	0.29	12/17/19 12:41	
Vinyl chloride	ug/L	1.0 U	1.0	0.29	12/17/19 12:41	
Xylene (Total)	ug/L	3.0 U	3.0	1.4	12/17/19 12:41	
1,2-Dichloroethane-d4 (S)	%.	98	80-120		12/17/19 12:41	
4-Bromofluorobenzene (S)	%.	97	78-122		12/17/19 12:41	
Dibromofluoromethane (S)	%.	100	80-120		12/17/19 12:41	
Toluene-d8 (S)	%.	96	80-120		12/17/19 12:41	

LABORATORY CONTROL SAMPLE: 1822983

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	21.9	109	70-130	
1,1,2,2-Tetrachloroethane	ug/L	20	24.0	120	70-130	
1,1,2-Trichloroethane	ug/L	20	22.4	112	70-130	
1,1,2-Trichlorotrifluoroethane	ug/L	20	23.8J	119	55-158	
1,1-Dichloroethane	ug/L	20	22.4	112	68-121	
1,1-Dichloroethene	ug/L	20	21.4	107	63-129	
1,2,4-Trichlorobenzene	ug/L	20	22.0	110	70-130	
1,2-Dichlorobenzene	ug/L	20	22.5	112	70-130	
1,2-Dichloroethane	ug/L	20	20.5	103	67-117	
1,2-Dichloroethene (Total)	ug/L	40	44.6	112	65-119	
1,2-Dichloropropane	ug/L	20	23.8	119	69-121	
1,3-Dichlorobenzene	ug/L	20	22.5	113	70-130	
1,4-Dichlorobenzene	ug/L	20	22.8	114	70-130	
1,4-Dioxane (p-Dioxane)	ug/L	200	373	186	10-175	L1
2-Butanone (MEK)	ug/L	20	26.4	132	59-128	L1
2-Hexanone	ug/L	20	26.1	131	49-145	
4-Methyl-2-pentanone (MIBK)	ug/L	20	25.5	128	63-126	L1
Acetone	ug/L	20	30.6	153	37-150	L1
Benzene	ug/L	20	21.6	108	70-130	
Bromochloromethane	ug/L	20	21.7	109	59-137	
Bromodichloromethane	ug/L	20	20.7	104	70-130	
Bromoform	ug/L	20	18.5	92	65-130	
Bromomethane	ug/L	20	16.4	82	45-148	
Carbon disulfide	ug/L	20	20.6	103	55-123	
Carbon tetrachloride	ug/L	20	21.9	109	69-126	
Chlorobenzene	ug/L	20	24.0	120	70-130	
Chloroethane	ug/L	20	23.3	117	68-146	

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 32357
Pace Project No.: 30340458

LABORATORY CONTROL SAMPLE: 1822983

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloroform	ug/L	20	20.8	104	69-116	
Chloromethane	ug/L	20	19.3	97	56-129	
cis-1,2-Dichloroethene	ug/L	20	22.0	110	66-118	
cis-1,3-Dichloropropene	ug/L	20	20.2	101	70-130	
Dibromochloromethane	ug/L	20	20.1	100	70-130	
Diisopropyl ether	ug/L	20	23.9	119	65-138	
Ethyl-tert-butyl ether	ug/L	20	22.5	112	59-147	
Ethylbenzene	ug/L	20	23.8	119	70-130	
m&p-Xylene	ug/L	40	47.0	118	70-130	
Methyl-tert-butyl ether	ug/L	20	20.1	100	70-130	
Methylene Chloride	ug/L	20	24.0	120	65-124	
Naphthalene	ug/L	20	22.9	115	69-135	
o-Xylene	ug/L	20	22.6	113	70-130	
Styrene	ug/L	20	23.5	118	70-130	
tert-Amylmethyl ether	ug/L	20	22.2	111	70-130	
tert-Butyl Alcohol	ug/L	100	130	130	63-147	
Tetrachloroethene	ug/L	20	23.5	117	70-130	
Toluene	ug/L	20	23.1	116	70-130	
trans-1,2-Dichloroethene	ug/L	20	22.6	113	64-123	
trans-1,3-Dichloropropene	ug/L	20	20.5	102	68-119	
Trichloroethene	ug/L	20	23.1	115	70-130	
Vinyl chloride	ug/L	20	21.9	109	70-130	
Xylene (Total)	ug/L	60	69.6	116	70-130	
1,2-Dichloroethane-d4 (S)	%.			96	80-120	
4-Bromofluorobenzene (S)	%.			100	78-122	
Dibromofluoromethane (S)	%.			103	80-120	
Toluene-d8 (S)	%.			99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1822984 1822985

Parameter	Units	30340284007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	1.0 U	20	20	16.2	16.5	81	82	67-127	2	30	
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	20	20	18.2	17.0	91	85	55-118	6	30	
1,1,2-Trichloroethane	ug/L	1.0 U	20	20	17.3	16.4	86	82	60-117	5	30	
1,1,2-Trichlorotrifluoroethane	ug/L	50.0 U	20	20	17.3J	15.6J	86	78	10-175		30	
1,1-Dichloroethane	ug/L	1.0 U	20	20	16.9	16.9	85	84	68-118	0	30	
1,1-Dichloroethene	ug/L	1.0 U	20	20	15.6	15.9	78	80	62-126	2	30	
1,2,4-Trichlorobenzene	ug/L	1.0 U	20	20	15.7	15.6	78	78	60-128	0	30	
1,2-Dichlorobenzene	ug/L	1.0 U	20	20	17.1	17.0	85	85	66-116	0	30	
1,2-Dichloroethane	ug/L	1.0 U	20	20	15.9	15.2	79	76	67-117	4	30	
1,2-Dichloroethene (Total)	ug/L	2.0 U	40	40	34.0	33.3	85	83	70-130	2	30	
1,2-Dichloropropane	ug/L	1.0 U	20	20	18.3	18.2	91	91	61-128	0	30	
1,3-Dichlorobenzene	ug/L	1.0 U	20	20	16.8	16.6	84	83	67-117	1	30	

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 32357
Pace Project No.: 30340458

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1822984 1822985

Parameter	Units	30340284007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dichlorobenzene	ug/L	1.0 U	20	20	16.6	16.9	83	84	68-116	2	30	
1,4-Dioxane (p-Dioxane)	ug/L	100 U	200	200	249	236	125	118	10-175	5	30	
2-Butanone (MEK)	ug/L	10.0 U	20	20	20.4	15.7	102	79	63-175	26	30	
2-Hexanone	ug/L	10.0 U	20	20	19.1	17.4	95	87	65-151	10	30	
4-Methyl-2-pentanone (MIBK)	ug/L	10.0 U	20	20	19.6	17.6	98	88	66-149	11	30	
Acetone	ug/L	10.0 U	20	20	21.7	19.7	109	98	10-175	10	30	
Benzene	ug/L	1.0 U	20	20	17.2	16.6	86	83	67-119	4	30	
Bromochloromethane	ug/L	1.0 U	20	20	17.6	16.4	88	82	64-124	7	30	
Bromodichloromethane	ug/L	1.0 U	20	20	14.9	14.8	74	74	67-126	0	30	
Bromoform	ug/L	1.0 U	20	20	12.9	12.3	64	61	43-114	5	30	
Bromomethane	ug/L	1.0 U	20	20	3.8	5.0	19	25	10-164	29	30	
Carbon disulfide	ug/L	1.0 U	20	20	14.6	13.8	73	69	37-135	6	30	
Carbon tetrachloride	ug/L	1.0 U	20	20	15.2	15.4	76	77	60-137	1	30	
Chlorobenzene	ug/L	1.0 U	20	20	17.6	17.1	88	85	68-119	3	30	
Chloroethane	ug/L	1.0 U	20	20	22.7	25.0	113	125	54-169	10	30	
Chloroform	ug/L	1.0 U	20	20	16.4	15.8	82	79	69-113	3	30	
Chloromethane	ug/L	1.0 U	20	20	15.1	19.2	75	96	43-159	24	30	
cis-1,2-Dichloroethene	ug/L	1.0 U	20	20	16.9	16.6	85	83	65-121	2	30	
cis-1,3-Dichloropropene	ug/L	1.0 U	20	20	14.7	14.3	73	71	61-120	3	30	
Dibromochloromethane	ug/L	1.0 U	20	20	13.8	12.9	69	65	56-121	7	30	
Diisopropyl ether	ug/L	1.0 U	20	20	17.3	16.1	87	80	58-131	8	30	
Ethyl-tert-butyl ether	ug/L	1.0 U	20	20	17.2	15.2	86	76	68-147	13	30	
Ethylbenzene	ug/L	1.0 U	20	20	17.7	17.6	89	88	69-127	0	30	
m&p-Xylene	ug/L	2.0 U	40	40	34.1	34.0	85	85	70-129	0	30	
Methyl-tert-butyl ether	ug/L	1.0 U	20	20	15.7	13.5	79	67	70-130	15	30	ML
Methylene Chloride	ug/L	1.0 U	20	20	18.8	18.5	94	92	49-144	2	30	
Naphthalene	ug/L	2.0 U	20	20	17.9	16.8	89	84	60-136	6	30	
o-Xylene	ug/L	1.0 U	20	20	16.7	16.2	83	81	68-126	3	30	
Styrene	ug/L	1.0 U	20	20	17.3	17.0	87	85	65-120	2	30	
tert-Amylmethyl ether	ug/L	1.0 U	20	20	16.8	15.0	84	75	45-115	11	30	
tert-Butyl Alcohol	ug/L	5.0 U	100	100	109	96.3	109	96	65-152	12	30	
Tetrachloroethene	ug/L	1.0 U	20	20	16.8	16.8	84	84	64-123	0	30	
Toluene	ug/L	1.0 U	20	20	17.5	16.8	88	84	70-130	4	30	
trans-1,2-Dichloroethene	ug/L	1.0 U	20	20	17.1	16.7	85	83	66-119	2	30	
trans-1,3-Dichloropropene	ug/L	1.0 U	20	20	14.7	13.9	74	70	52-117	6	30	
Trichloroethene	ug/L	1.0 U	20	20	17.2	17.7	86	88	63-125	2	30	
Vinyl chloride	ug/L	1.0 U	20	20	19.5	22.7	98	114	60-133	15	30	
Xylene (Total)	ug/L	3.0 U	60	60	50.8	50.1	85	84	69-128	1	30	
1,2-Dichloroethane-d4 (S)	%.						95	92	80-120			
4-Bromofluorobenzene (S)	%.						101	103	78-122			
Dibromofluoromethane (S)	%.						100	99	80-120			
Toluene-d8 (S)	%.						97	96	80-120			

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REPORT OF LABORATORY ANALYSIS

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1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: 32357
Pace Project No.: 30340458

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA	Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
ML	Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.
N	The reported TIC has an 85% or higher match on a mass spectral library search.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 32357
Pace Project No.: 30340458

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30340458001	**S-223-CSIA_20191204**	EPA 8260B	375827		
30340458002	**Penrose System Effluent**	EPA 8260B	375827		

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CHAIN-OF-CUSTODY RECORD

Phone: (412) 826-5245 Pace Analytical Energy Services, LLC - 220 William Pitt Way - Pittsburgh, PA 15238 Fax: (412) 826-3433

SEND TO: Pace Greensburg DUE DATE: 12/20/2019

Results to: ruth.welsh@pacelabs.com
mark.mikesell@pacelabs.com

Invoice to: ruth.welsh@pacelabs.com

Lab Proj. # 32357

Company: Pace Analytical Energy Services, LLC
Co. Address: 220 William Pitt Way, Pittsburgh, PA 15238
Phone #: 412-826-5245
Fax #: 412-826-3433

State of Origin: PA

Preservatives
1 -Unpreserved 4-HCL
2- H2SO4 5-NaOH+Zn Ace.
3- HNO3

Sample ID	Sample Type: Water	Sample Type: Solid	Date	Time	# Bottles	Preservatives	Parameters Requested: 8260 VOCs	Parameters Requested: 60
S-223-CSIA_20191204	X		12/4/19	13:45	2	4	X	
Penrose System Effluent	X		12/5/19	9:35	2	4	X	

Remarks:
Use profile 5553 for volatiles
OK TO RUN OUTSIDE OF HOLDING TIME

WO# : 30340458

30340458

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
R. Welsh	PAES	12/11/2019	10:30		PAES	12-12-19	1450
Relinquished by:	Company: PAES	Date: 12-12-19	Time: 1543	Received by:	Company: Pace	Date: 12/12/19	Time: 1545

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here: 22357

ALL SHADED AREAS are for LAB USE ONLY

Company: Evergreen C/O StantEC	Billing Information:
Address: 1060 Andrew Drive Suite 140 West Chester, PA, 19380	
Report To: Andrew	Email To:
Copy To: Mark (cc) (PACE)	Site Collection Info/Address: PES
Customer Project Name/Number: 2134026026	State: PA County/City: Philadelphia Time Zone Collected: [ ] PT [ ] MT [ ] CT [4] ET
Phone: 610-850-1420 Email: Andrew.klinger@Stantec.com	Site/Facility ID #:
Collected By (print): Doulton Campbell	Purchase Order #: Quote #:
Collected By (signature):	Turnaround Date Required: Standard
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold:	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)

Compliance Monitoring? [ ] Yes [ ] No

DW PWS ID #: DW Location Code:

Immediately Packed on Ice: [ ] Yes [ ] No

Field Filtered (if applicable): [ ] Yes [ ] No Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Container Preservative Type **: J V J J J

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Lab Project Manager:

Analyses

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	Cl, NO3, PO4, SO4	TCL VOC FULL SCAN	CSIA Isopropanol	CSIA Isopropanol	CSIA BTEX
S-223_BASE_6GRAB_20191204	WT	G	12/04	13:45				2		X			
S-223_CSIA_20191204	WT	G	12/04	1345				6			X		
Penrose System Product	P	G	12/05	0930				2	X	X			X
Penrose System Effluent	WT	G	12/05	0935				6				X	
S-369_BASE_6GRAB_20191205	WT	G	12/05	1040				4	X	X			
S-369_BASE_6GRAB_20191205	WT	G	12/05	1130				4	X	X			
ARCO-1D_BASE_6GRAB_20191205	WT	G	12/05	1345				4	X	X			
ARCO-1_BASE_6GRAB_20191205	WT	G	12/05	1400				4	X	X			
ARCO-3_BASE_6GRAB_20191205	WT	G	12/05	1425				4	X	X			
ARCO-2_BASE_6GRAB_20191205	WT	G	12/05	1445				4	X	X			

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y N NA
Custody Signatures Present	Y N NA
Collector Signature Present	Y N NA
Bottles Intact	Y N NA
Correct Bottles	Y N NA
Sufficient Volume	Y N NA
Samples Received on Ice	Y N NA
VOA - Headspace Acceptable	Y N NA
USDA Regulated Soils	Y N NA
Samples in Holding Time	Y N NA
Residual Chlorine Present	Y N NA
Cl Strips:	
Sample pH Acceptable	Y N NA
pH Strips:	
Sulfide Present	Y N NA
Lead Acetate Strips:	

LAB USE ONLY:
Lab Sample # / Comments:

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: (Wet) Blue Dry None

Packing Material Used: bubble wrap, foam

Radchem sample(s) screened (<500 cpm): Y N (NA)

SHORT HOLDS PRESENT (<72 hours): Y (N) N/A

Lab Tracking #: 867596123245678

Samples received via: (FEDEX) UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: (Y) N NA
Therm ID#:
Cooler 1 Temp Upon Receipt: ____ oC
Cooler 1 Therm Corr. Factor: ____ oC
Cooler 1 Corrected Temp: ____ oC
Comments: 0.5

Relinquished by/Company: (Signature) Stantec	Date/Time: 12/6 12:00	Received by/Company: (Signature)	Date/Time: 12/6 12:00
Relinquished by/Company: (Signature)	Date/Time: 12/6 18:30	Received by/Company: (Signature) Lael PACE	Date/Time: 12.9 0750
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N (NA)
HCL MeOH TSP Other

Non Conformance(s): (YES) / (NO)

Page: ____ of: ____

Pittsburgh Lab Sample Condition Upon Receipt

Pace Analytical

Client Name: PACS

Project # #_30340458

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other _____

Label: NG

LIMS Login: NG

Tracking #: NA

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☑ no

Thermometer Used #9 Type of Ice: (Wet) Blue None

Cooler Temperature Observed Temp 5.9 °C Correction Factor: 0 °C Final Temp: 5.9 °C

Temp should be above freezing to 6°C

pH paper Lot#: NA

Date and Initials of person examining contents: NG 12/12/19

Comments:	Yes	No	N/A	
Chain of Custody Present:	✓			1.
Chain of Custody Filled Out:	✓			2.
Chain of Custody Relinquished:	✓			3.
Sampler Name & Signature on COC:	✓			4. Sampler info on 2nd sheet
Sample Labels match COC: -Includes date/time/ID Matrix: WT	✓			5.
Samples Arrived within Hold Time:	✓			6.
Short Hold Time Analysis (<72hr remaining):		✓		7.
Rush Turn Around Time Requested:		✓		8.
Sufficient Volume:	✓			9.
Correct Containers Used: -Pace Containers Used:	✓ ✓			10.
Containers Intact:	✓			11.
Orthophosphate field filtered			✓	12.
Hex Cr Aqueous sample field filtered			✓	13.
Organic Samples checked for dechlorination:			✓	14.
Filtered volume received for Dissolved tests			✓	15.
All containers have been checked for preservation. exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix	✓			16.
All containers meet method preservation requirements.	✓			Initial when completed: NG Date/time of preservation: Lot # of added preservative:
Headspace in VOA Vials (>6mm):		✓		17.
Trip Blank Present:		✓		18.
Trip Blank Custody Seals Present			✓	
Rad Samples Screened < 0.5 mrem/hr			✓	Initial when completed: NG Date: 12/12/19

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

☐ **A check in this box indicates that additional information has been stored in ereports.**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

December 24, 2019

Jianwu Tang
Pace Analytical Energy Services
220 William Pitt Way
Pittsburgh, PA 15238

RE: Project: 32429
Pace Project No.: 30340757

Dear Jianwu Tang:
Enclosed are the analytical results for sample(s) received by the laboratory on December 13, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

David A. Pichette
david.pichette@pacelabs.com
(724)850-5617
Project Manager

Enclosures

cc: Mark Mikesell, Pace Analytical Energy Services
Ms. Ruth Welsh, Pace Analytical Energy Services

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CERTIFICATIONS

Project: 32429
Pace Project No.: 30340757

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 32429
Pace Project No.: 30340757

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30340757001	**324290001 S-375_CSIA_20191209**	Water	12/09/19 12:30	12/13/19 17:00
30340757002	**324290002 S-374_CSIA_20191209**	Water	12/09/19 14:15	12/13/19 17:00
30340757003	**324290003 S-378_CSIA_20191209**	Water	12/10/19 11:00	12/13/19 17:00
30340757004	**324290004 S-377_CSIA_20191210**	Water	12/10/19 15:00	12/13/19 17:00
30340757005	**324290005 S-376_CSIA_20191212**	Water	12/12/19 11:50	12/13/19 17:00

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SAMPLE ANALYTE COUNT

Project: 32429
Pace Project No.: 30340757

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30340757001	**324290001 S-375_CSIA_20191209**	EPA 8260B	LEL	64	PASI-PA
30340757002	**324290002 S-374_CSIA_20191209**	EPA 8260B	LEL	64	PASI-PA
30340757003	**324290003 S-378_CSIA_20191209**	EPA 8260B	LEL	64	PASI-PA
30340757004	**324290004 S-377_CSIA_20191210**	EPA 8260B	LEL	63	PASI-PA
30340757005	**324290005 S-376_CSIA_20191212**	EPA 8260B	LEL	64	PASI-PA

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PROJECT NARRATIVE

Project: 32429
Pace Project No.: 30340757

Date: December 24, 2019

324290001 S-375_CSIA_20191209 (Lab ID: 30340757001)

- Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

324290002 S-374_CSIA_20191209 (Lab ID: 30340757002)

- Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

324290003 S-378_CSIA_20191209 (Lab ID: 30340757003)

- Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

324290004 S-377_CSIA_20191210 (Lab ID: 30340757004)

- Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

324290005 S-376_CSIA_20191212 (Lab ID: 30340757005)

- Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

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PROJECT NARRATIVE

Project: 32429
Pace Project No.: 30340757

Method: **EPA 8260B**
Description: 8260B MSV
Client: Pace Analytical Energy Services, LLC
Date: December 24, 2019

General Information:
5 samples were analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: 376722

B: Analyte was detected in the associated method blank.
- BLANK for HBN 376722 [MSV/4790 (Lab ID: 1827564)
  - Acetone
  - Bromomethane

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 376722

L1: Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
- LCS (Lab ID: 1827565)
  - 1,4-Dioxane (p-Dioxane)

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 376722

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30341150006

ML: Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.
- MS (Lab ID: 1827566)
  - Bromodichloromethane

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 32429
Pace Project No.: 30340757

Method: **EPA 8260B**
Description: 8260B MSV
Client: Pace Analytical Energy Services, LLC
Date: December 24, 2019

QC Batch: 376722

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30341150006

R1: RPD value was outside control limits.

- MSD (Lab ID: 1827567)
  - 1,4-Dioxane (p-Dioxane)

Additional Comments:

Analyte Comments:

QC Batch: 376722

1c: The analyte did not meet the method recommended minimum RF.

- 324290001 S-375_CSIA_20191209 (Lab ID: 30340757001)
  - 1,4-Dioxane (p-Dioxane)
- 324290002 S-374_CSIA_20191209 (Lab ID: 30340757002)
  - 1,4-Dioxane (p-Dioxane)
- 324290003 S-378_CSIA_20191209 (Lab ID: 30340757003)
  - 1,4-Dioxane (p-Dioxane)
- 324290004 S-377_CSIA_20191210 (Lab ID: 30340757004)
  - 1,4-Dioxane (p-Dioxane)
- 324290005 S-376_CSIA_20191212 (Lab ID: 30340757005)
  - 1,4-Dioxane (p-Dioxane)
- BLANK (Lab ID: 1827564)
  - 1,4-Dioxane (p-Dioxane)
- LCS (Lab ID: 1827565)
  - 1,4-Dioxane (p-Dioxane)
- MS (Lab ID: 1827566)
  - 1,4-Dioxane (p-Dioxane)
- MSD (Lab ID: 1827567)
  - 1,4-Dioxane (p-Dioxane)

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 32429
Pace Project No.: 30340757

Sample: 324290001 S-375_CSIA_20191209 **Lab ID: 30340757001** Collected: 12/09/19 12:30 Received: 12/13/19 17:00 Matrix: Water

Comments:
- Trip blanks not received with the samples.
- Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B								
Acetone	**743**	ug/L	500	280	50		12/23/19 18:19	67-64-1	B
tert-Amylmethyl ether	**50.0 U**	ug/L	50.0	13.4	50		12/23/19 18:19	994-05-8	
Benzene	**794**	ug/L	50.0	16.9	50		12/23/19 18:19	71-43-2	
Bromochloromethane	**50.0 U**	ug/L	50.0	24.0	50		12/23/19 18:19	74-97-5	
Bromodichloromethane	**50.0 U**	ug/L	50.0	17.4	50		12/23/19 18:19	75-27-4	
Bromoform	**50.0 U**	ug/L	50.0	28.2	50		12/23/19 18:19	75-25-2	
Bromomethane	**50.0 U**	ug/L	50.0	36.4	50		12/23/19 18:19	74-83-9	B
2-Butanone (MEK)	**500 U**	ug/L	500	76.0	50		12/23/19 18:19	78-93-3	
tert-Butyl Alcohol	**474**	ug/L	250	216	50		12/23/19 18:19	75-65-0	
Carbon disulfide	**50.0 U**	ug/L	50.0	16.2	50		12/23/19 18:19	75-15-0	
Carbon tetrachloride	**50.0 U**	ug/L	50.0	21.8	50		12/23/19 18:19	56-23-5	
Chlorobenzene	**50.0 U**	ug/L	50.0	13.1	50		12/23/19 18:19	108-90-7	
Chloroethane	**50.0 U**	ug/L	50.0	32.1	50		12/23/19 18:19	75-00-3	
Chloroform	**50.0 U**	ug/L	50.0	19.6	50		12/23/19 18:19	67-66-3	
Chloromethane	**50.0 U**	ug/L	50.0	20.2	50		12/23/19 18:19	74-87-3	
Dibromochloromethane	**50.0 U**	ug/L	50.0	21.3	50		12/23/19 18:19	124-48-1	
1,2-Dichlorobenzene	**50.0 U**	ug/L	50.0	19.2	50		12/23/19 18:19	95-50-1	
1,3-Dichlorobenzene	**50.0 U**	ug/L	50.0	22.4	50		12/23/19 18:19	541-73-1	
1,4-Dichlorobenzene	**50.0 U**	ug/L	50.0	23.9	50		12/23/19 18:19	106-46-7	
1,1-Dichloroethane	**50.0 U**	ug/L	50.0	12.0	50		12/23/19 18:19	75-34-3	
1,2-Dichloroethane	**50.0 U**	ug/L	50.0	16.4	50		12/23/19 18:19	107-06-2	
1,2-Dichloroethene (Total)	**100 U**	ug/L	100	33.2	50		12/23/19 18:19	540-59-0	
1,1-Dichloroethene	**50.0 U**	ug/L	50.0	12.0	50		12/23/19 18:19	75-35-4	
cis-1,2-Dichloroethene	**50.0 U**	ug/L	50.0	19.0	50		12/23/19 18:19	156-59-2	
trans-1,2-Dichloroethene	**50.0 U**	ug/L	50.0	14.1	50		12/23/19 18:19	156-60-5	
1,2-Dichloropropane	**50.0 U**	ug/L	50.0	14.0	50		12/23/19 18:19	78-87-5	
cis-1,3-Dichloropropene	**50.0 U**	ug/L	50.0	14.4	50		12/23/19 18:19	10061-01-5	
trans-1,3-Dichloropropene	**50.0 U**	ug/L	50.0	16.1	50		12/23/19 18:19	10061-02-6	
Diisopropyl ether	**50.0 U**	ug/L	50.0	12.8	50		12/23/19 18:19	108-20-3	
1,4-Dioxane (p-Dioxane)	**5000 U**	ug/L	5000	3760	50		12/23/19 18:19	123-91-1	1c,L1
Ethylbenzene	**811**	ug/L	50.0	19.9	50		12/23/19 18:19	100-41-4	
Ethyl-tert-butyl ether	**50.0 U**	ug/L	50.0	14.3	50		12/23/19 18:19	637-92-3	
2-Hexanone	**500 U**	ug/L	500	29.0	50		12/23/19 18:19	591-78-6	
Methylene Chloride	**50.0 U**	ug/L	50.0	31.9	50		12/23/19 18:19	75-09-2	
4-Methyl-2-pentanone (MIBK)	**500 U**	ug/L	500	21.0	50		12/23/19 18:19	108-10-1	
Methyl-tert-butyl ether	**50.0 U**	ug/L	50.0	12.4	50		12/23/19 18:19	1634-04-4	
Naphthalene	**270**	ug/L	100	41.0	50		12/23/19 18:19	91-20-3	
Styrene	**50.0 U**	ug/L	50.0	16.5	50		12/23/19 18:19	100-42-5	
1,1,2,2-Tetrachloroethane	**50.0 U**	ug/L	50.0	23.6	50		12/23/19 18:19	79-34-5	
Tetrachloroethene	**1060**	ug/L	50.0	19.6	50		12/23/19 18:19	127-18-4	
Toluene	**799**	ug/L	50.0	15.8	50		12/23/19 18:19	108-88-3	
1,2,4-Trichlorobenzene	**50.0 U**	ug/L	50.0	36.7	50		12/23/19 18:19	120-82-1	
1,1,1-Trichloroethane	**50.0 U**	ug/L	50.0	18.8	50		12/23/19 18:19	71-55-6	
1,1,2-Trichloroethane	**50.0 U**	ug/L	50.0	16.6	50		12/23/19 18:19	79-00-5	

REPORT OF LABORATORY ANALYSIS

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(724)850-5600

ANALYTICAL RESULTS

Project: 32429
Pace Project No.: 30340757

Sample: 324290001 S-375_CSIA_20191209 **Lab ID: 30340757001** Collected: 12/09/19 12:30 Received: 12/13/19 17:00 Matrix: Water

Comments:
- Trip blanks not received with the samples.
- Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B								
Trichloroethene	**50.0 U**	ug/L	50.0	14.6	50		12/23/19 18:19	79-01-6	
1,1,2-Trichlorotrifluoroethane	**2500 U**	ug/L	2500	152	50		12/23/19 18:19	76-13-1	
Vinyl chloride	**50.0 U**	ug/L	50.0	14.4	50		12/23/19 18:19	75-01-4	
Xylene (Total)	**3590**	ug/L	150	67.5	50		12/23/19 18:19	1330-20-7	
m&p-Xylene	**3040**	ug/L	100	47.1	50		12/23/19 18:19	179601-23-1	
o-Xylene	**552**	ug/L	50.0	20.4	50		12/23/19 18:19	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%.	78-122		50		12/23/19 18:19	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%.	80-120		50		12/23/19 18:19	17060-07-0	
Toluene-d8 (S)	94	%.	80-120		50		12/23/19 18:19	2037-26-5	
Dibromofluoromethane (S)	97	%.	80-120		50		12/23/19 18:19	1868-53-7	
Tentatively Identified Compounds									
Unknown Alkane	**441J**	ug/L			50		12/23/19 18:19		
Unknown Alkane	**709J**	ug/L			50		12/23/19 18:19		
Unknown Hydrocarbon	**223J**	ug/L			50		12/23/19 18:19		
Butane, 2-methyl-	**545J**	ug/L			50		12/23/19 18:19	78-78-4	N
Pentane $$ n-Pentane $$	**245J**	ug/L			50		12/23/19 18:19	109-66-0	N
1-Butene, 2-methyl-	**195J**	ug/L			50		12/23/19 18:19	563-46-2	N
2-Butene, 2-methyl-	**237J**	ug/L			50		12/23/19 18:19	513-35-9	N
Cyclopentene	**272J**	ug/L			50		12/23/19 18:19	142-29-0	N
Cyclopentane	**453J**	ug/L			50		12/23/19 18:19	287-92-3	N
Cyclopentane, methyl-	**258J**	ug/L			50		12/23/19 18:19	96-37-7	N

Sample: 324290002 S-374_CSIA_20191209 **Lab ID: 30340757002** Collected: 12/09/19 14:15 Received: 12/13/19 17:00 Matrix: Water

Comments:
- Trip blanks not received with the samples.
- Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B								
Acetone	**849**	ug/L	500	280	50		12/23/19 18:45	67-64-1	B
tert-Amylmethyl ether	**50.0 U**	ug/L	50.0	13.4	50		12/23/19 18:45	994-05-8	
Benzene	**123**	ug/L	50.0	16.9	50		12/23/19 18:45	71-43-2	
Bromochloromethane	**50.0 U**	ug/L	50.0	24.0	50		12/23/19 18:45	74-97-5	
Bromodichloromethane	**50.0 U**	ug/L	50.0	17.4	50		12/23/19 18:45	75-27-4	
Bromoform	**50.0 U**	ug/L	50.0	28.2	50		12/23/19 18:45	75-25-2	
Bromomethane	**50.0 U**	ug/L	50.0	36.4	50		12/23/19 18:45	74-83-9	B
2-Butanone (MEK)	**500 U**	ug/L	500	76.0	50		12/23/19 18:45	78-93-3	
tert-Butyl Alcohol	**250 U**	ug/L	250	216	50		12/23/19 18:45	75-65-0	
Carbon disulfide	**50.0 U**	ug/L	50.0	16.2	50		12/23/19 18:45	75-15-0	
Carbon tetrachloride	**50.0 U**	ug/L	50.0	21.8	50		12/23/19 18:45	56-23-5	
Chlorobenzene	**50.0 U**	ug/L	50.0	13.1	50		12/23/19 18:45	108-90-7	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 32429
Pace Project No.: 30340757

Sample: 324290002 S-374_CSIA_20191209 **Lab ID: 30340757002** Collected: 12/09/19 14:15 Received: 12/13/19 17:00 Matrix: Water

Comments:
- Trip blanks not received with the samples.
- Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B								
Chloroethane	**50.0 U**	ug/L	50.0	32.1	50		12/23/19 18:45	75-00-3	
Chloroform	**50.0 U**	ug/L	50.0	19.6	50		12/23/19 18:45	67-66-3	
Chloromethane	**50.0 U**	ug/L	50.0	20.2	50		12/23/19 18:45	74-87-3	
Dibromochloromethane	**50.0 U**	ug/L	50.0	21.3	50		12/23/19 18:45	124-48-1	
1,2-Dichlorobenzene	**50.0 U**	ug/L	50.0	19.2	50		12/23/19 18:45	95-50-1	
1,3-Dichlorobenzene	**50.0 U**	ug/L	50.0	22.4	50		12/23/19 18:45	541-73-1	
1,4-Dichlorobenzene	**50.0 U**	ug/L	50.0	23.9	50		12/23/19 18:45	106-46-7	
1,1-Dichloroethane	**50.0 U**	ug/L	50.0	12.0	50		12/23/19 18:45	75-34-3	
1,2-Dichloroethane	**50.0 U**	ug/L	50.0	16.4	50		12/23/19 18:45	107-06-2	
1,2-Dichloroethene (Total)	**100 U**	ug/L	100	33.2	50		12/23/19 18:45	540-59-0	
1,1-Dichloroethene	**50.0 U**	ug/L	50.0	12.0	50		12/23/19 18:45	75-35-4	
cis-1,2-Dichloroethene	**50.0 U**	ug/L	50.0	19.0	50		12/23/19 18:45	156-59-2	
trans-1,2-Dichloroethene	**50.0 U**	ug/L	50.0	14.1	50		12/23/19 18:45	156-60-5	
1,2-Dichloropropane	**50.0 U**	ug/L	50.0	14.0	50		12/23/19 18:45	78-87-5	
cis-1,3-Dichloropropene	**50.0 U**	ug/L	50.0	14.4	50		12/23/19 18:45	10061-01-5	
trans-1,3-Dichloropropene	**50.0 U**	ug/L	50.0	16.1	50		12/23/19 18:45	10061-02-6	
Diisopropyl ether	**50.0 U**	ug/L	50.0	12.8	50		12/23/19 18:45	108-20-3	
1,4-Dioxane (p-Dioxane)	**5000 U**	ug/L	5000	3760	50		12/23/19 18:45	123-91-1	1c,L1
Ethylbenzene	**1030**	ug/L	50.0	19.9	50		12/23/19 18:45	100-41-4	
Ethyl-tert-butyl ether	**50.0 U**	ug/L	50.0	14.3	50		12/23/19 18:45	637-92-3	
2-Hexanone	**500 U**	ug/L	500	29.0	50		12/23/19 18:45	591-78-6	
Methylene Chloride	**50.0 U**	ug/L	50.0	31.9	50		12/23/19 18:45	75-09-2	
4-Methyl-2-pentanone (MIBK)	**500 U**	ug/L	500	21.0	50		12/23/19 18:45	108-10-1	
Methyl-tert-butyl ether	**50.0 U**	ug/L	50.0	12.4	50		12/23/19 18:45	1634-04-4	
Naphthalene	**328**	ug/L	100	41.0	50		12/23/19 18:45	91-20-3	
Styrene	**50.0 U**	ug/L	50.0	16.5	50		12/23/19 18:45	100-42-5	
1,1,2,2-Tetrachloroethane	**50.0 U**	ug/L	50.0	23.6	50		12/23/19 18:45	79-34-5	
Tetrachloroethene	**111**	ug/L	50.0	19.6	50		12/23/19 18:45	127-18-4	
Toluene	**255**	ug/L	50.0	15.8	50		12/23/19 18:45	108-88-3	
1,2,4-Trichlorobenzene	**50.0 U**	ug/L	50.0	36.7	50		12/23/19 18:45	120-82-1	
1,1,1-Trichloroethane	**50.0 U**	ug/L	50.0	18.8	50		12/23/19 18:45	71-55-6	
1,1,2-Trichloroethane	**50.0 U**	ug/L	50.0	16.6	50		12/23/19 18:45	79-00-5	
Trichloroethene	**50.0 U**	ug/L	50.0	14.6	50		12/23/19 18:45	79-01-6	
1,1,2-Trichlorotrifluoroethane	**2500 U**	ug/L	2500	152	50		12/23/19 18:45	76-13-1	
Vinyl chloride	**50.0 U**	ug/L	50.0	14.4	50		12/23/19 18:45	75-01-4	
Xylene (Total)	**1860**	ug/L	150	67.5	50		12/23/19 18:45	1330-20-7	
m&p-Xylene	**1620**	ug/L	100	47.1	50		12/23/19 18:45	179601-23-1	
o-Xylene	**237**	ug/L	50.0	20.4	50		12/23/19 18:45	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%.	78-122		50		12/23/19 18:45	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%.	80-120		50		12/23/19 18:45	17060-07-0	
Toluene-d8 (S)	95	%.	80-120		50		12/23/19 18:45	2037-26-5	
Dibromofluoromethane (S)	97	%.	80-120		50		12/23/19 18:45	1868-53-7	

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(724)850-5600

ANALYTICAL RESULTS

Project: 32429
Pace Project No.: 30340757

Sample: 324290002 S-374_CSIA_20191209 **Lab ID: 30340757002** Collected: 12/09/19 14:15 Received: 12/13/19 17:00 Matrix: Water

Comments: • Trip blanks not received with the samples.
• Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B								
Tentatively Identified Compounds									
Unknown Alkane	**165J**	ug/L			50		12/23/19 18:45		
Unknown Alkane	**519J**	ug/L			50		12/23/19 18:45		
Butane, 2-methyl-	**452J**	ug/L			50		12/23/19 18:45	78-78-4	N
Pentane $$ n-Pentane $$	**284J**	ug/L			50		12/23/19 18:45	109-66-0	N
Unknown Cycloalkane	**506J**	ug/L			50		12/23/19 18:45		
Cyclopentane, methyl- $$	**459J**	ug/L			50		12/23/19 18:45	96-37-7	N
Benzene, 1-ethyl-4-methy	**237J**	ug/L			50		12/23/19 18:45	622-96-8	N
Benzene, 1-ethyl-2-methy	**220J**	ug/L			50		12/23/19 18:45	611-14-3	N
Indane	**280J**	ug/L			50		12/23/19 18:45	496-11-7	N
Unknown Organic Acid	**7070J**	ug/L			50		12/23/19 18:45		

Sample: 324290003 S-378_CSIA_20191209 **Lab ID: 30340757003** Collected: 12/10/19 11:00 Received: 12/13/19 17:00 Matrix: Water

Comments: • Trip blanks not received with the samples.
• Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B								
Acetone	**903**	ug/L	500	280	50		12/23/19 19:36	67-64-1	B
tert-Amylmethyl ether	**50.0 U**	ug/L	50.0	13.4	50		12/23/19 19:36	994-05-8	
Benzene	**1660**	ug/L	50.0	16.9	50		12/23/19 19:36	71-43-2	
Bromochloromethane	**50.0 U**	ug/L	50.0	24.0	50		12/23/19 19:36	74-97-5	
Bromodichloromethane	**50.0 U**	ug/L	50.0	17.4	50		12/23/19 19:36	75-27-4	
Bromoform	**50.0 U**	ug/L	50.0	28.2	50		12/23/19 19:36	75-25-2	
Bromomethane	**50.0 U**	ug/L	50.0	36.4	50		12/23/19 19:36	74-83-9	B
2-Butanone (MEK)	**500 U**	ug/L	500	76.0	50		12/23/19 19:36	78-93-3	
tert-Butyl Alcohol	**417**	ug/L	250	216	50		12/23/19 19:36	75-65-0	
Carbon disulfide	**50.0 U**	ug/L	50.0	16.2	50		12/23/19 19:36	75-15-0	
Carbon tetrachloride	**50.0 U**	ug/L	50.0	21.8	50		12/23/19 19:36	56-23-5	
Chlorobenzene	**50.0 U**	ug/L	50.0	13.1	50		12/23/19 19:36	108-90-7	
Chloroethane	**50.0 U**	ug/L	50.0	32.1	50		12/23/19 19:36	75-00-3	
Chloroform	**50.0 U**	ug/L	50.0	19.6	50		12/23/19 19:36	67-66-3	
Chloromethane	**50.0 U**	ug/L	50.0	20.2	50		12/23/19 19:36	74-87-3	
Dibromochloromethane	**50.0 U**	ug/L	50.0	21.3	50		12/23/19 19:36	124-48-1	
1,2-Dichlorobenzene	**50.0 U**	ug/L	50.0	19.2	50		12/23/19 19:36	95-50-1	
1,3-Dichlorobenzene	**50.0 U**	ug/L	50.0	22.4	50		12/23/19 19:36	541-73-1	
1,4-Dichlorobenzene	**50.0 U**	ug/L	50.0	23.9	50		12/23/19 19:36	106-46-7	
1,1-Dichloroethane	**50.0 U**	ug/L	50.0	12.0	50		12/23/19 19:36	75-34-3	
1,2-Dichloroethane	**50.0 U**	ug/L	50.0	16.4	50		12/23/19 19:36	107-06-2	
1,2-Dichloroethene (Total)	**100 U**	ug/L	100	33.2	50		12/23/19 19:36	540-59-0	
1,1-Dichloroethene	**50.0 U**	ug/L	50.0	12.0	50		12/23/19 19:36	75-35-4	

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ANALYTICAL RESULTS

Project: 32429
Pace Project No.: 30340757

Sample: 324290003 S-378_CSIA_20191209 **Lab ID: 30340757003** Collected: 12/10/19 11:00 Received: 12/13/19 17:00 Matrix: Water

Comments:
- Trip blanks not received with the samples.
- Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B								
cis-1,2-Dichloroethene	**50.0 U**	ug/L	50.0	19.0	50		12/23/19 19:36	156-59-2	
trans-1,2-Dichloroethene	**50.0 U**	ug/L	50.0	14.1	50		12/23/19 19:36	156-60-5	
1,2-Dichloropropane	**50.0 U**	ug/L	50.0	14.0	50		12/23/19 19:36	78-87-5	
cis-1,3-Dichloropropene	**50.0 U**	ug/L	50.0	14.4	50		12/23/19 19:36	10061-01-5	
trans-1,3-Dichloropropene	**50.0 U**	ug/L	50.0	16.1	50		12/23/19 19:36	10061-02-6	
Diisopropyl ether	**50.0 U**	ug/L	50.0	12.8	50		12/23/19 19:36	108-20-3	
1,4-Dioxane (p-Dioxane)	**5000 U**	ug/L	5000	3760	50		12/23/19 19:36	123-91-1	1c,L1
Ethylbenzene	**848**	ug/L	50.0	19.9	50		12/23/19 19:36	100-41-4	
Ethyl-tert-butyl ether	**50.0 U**	ug/L	50.0	14.3	50		12/23/19 19:36	637-92-3	
2-Hexanone	**500 U**	ug/L	500	29.0	50		12/23/19 19:36	591-78-6	
Methylene Chloride	**50.0 U**	ug/L	50.0	31.9	50		12/23/19 19:36	75-09-2	
4-Methyl-2-pentanone (MIBK)	**500 U**	ug/L	500	21.0	50		12/23/19 19:36	108-10-1	
Methyl-tert-butyl ether	**50.0 U**	ug/L	50.0	12.4	50		12/23/19 19:36	1634-04-4	
Naphthalene	**271**	ug/L	100	41.0	50		12/23/19 19:36	91-20-3	
Styrene	**50.0 U**	ug/L	50.0	16.5	50		12/23/19 19:36	100-42-5	
1,1,2,2-Tetrachloroethane	**50.0 U**	ug/L	50.0	23.6	50		12/23/19 19:36	79-34-5	
Tetrachloroethene	**117**	ug/L	50.0	19.6	50		12/23/19 19:36	127-18-4	
Toluene	**360**	ug/L	50.0	15.8	50		12/23/19 19:36	108-88-3	
1,2,4-Trichlorobenzene	**50.0 U**	ug/L	50.0	36.7	50		12/23/19 19:36	120-82-1	
1,1,1-Trichloroethane	**50.0 U**	ug/L	50.0	18.8	50		12/23/19 19:36	71-55-6	
1,1,2-Trichloroethane	**50.0 U**	ug/L	50.0	16.6	50		12/23/19 19:36	79-00-5	
Trichloroethene	**50.0 U**	ug/L	50.0	14.6	50		12/23/19 19:36	79-01-6	
1,1,2-Trichlorotrifluoroethane	**2500 U**	ug/L	2500	152	50		12/23/19 19:36	76-13-1	
Vinyl chloride	**50.0 U**	ug/L	50.0	14.4	50		12/23/19 19:36	75-01-4	
Xylene (Total)	**660**	ug/L	150	67.5	50		12/23/19 19:36	1330-20-7	
m&p-Xylene	**531**	ug/L	100	47.1	50		12/23/19 19:36	179601-23-1	
o-Xylene	**129**	ug/L	50.0	20.4	50		12/23/19 19:36	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%.	78-122		50		12/23/19 19:36	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%.	80-120		50		12/23/19 19:36	17060-07-0	
Toluene-d8 (S)	95	%.	80-120		50		12/23/19 19:36	2037-26-5	
Dibromofluoromethane (S)	95	%.	80-120		50		12/23/19 19:36	1868-53-7	
Tentatively Identified Compounds									
Unknown Alkane	**295J**	ug/L			50		12/23/19 19:36		
Butane, 2-methyl-	**466J**	ug/L			50		12/23/19 19:36	78-78-4	N
2-Butene, 2-methyl-	**471J**	ug/L			50		12/23/19 19:36	513-35-9	N
Cyclopentene	**416J**	ug/L			50		12/23/19 19:36	142-29-0	N
Cyclopentane $$ Pentamet	**397J**	ug/L			50		12/23/19 19:36	287-92-3	N
Cyclopentane, methyl-	**415J**	ug/L			50		12/23/19 19:36	96-37-7	N
Unknown Alcohol	**504J**	ug/L			50		12/23/19 19:36		
Unknown Alcohol	**320J**	ug/L			50		12/23/19 19:36		
Benzene, 1-ethyl-2-methy	**184J**	ug/L			50		12/23/19 19:36	611-14-3	N
Indane	**371J**	ug/L			50		12/23/19 19:36	496-11-7	N

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ANALYTICAL RESULTS

Project: 32429
Pace Project No.: 30340757

Sample: 324290004 S-377_CSIA_20191210 **Lab ID: 30340757004** Collected: 12/10/19 15:00 Received: 12/13/19 17:00 Matrix: Water

Comments:
- Trip blanks not received with the samples.
- Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B								
Acetone	**735**	ug/L	500	280	50		12/23/19 19:10	67-64-1	B
tert-Amylmethyl ether	**50.0 U**	ug/L	50.0	13.4	50		12/23/19 19:10	994-05-8	
Benzene	**1560**	ug/L	50.0	16.9	50		12/23/19 19:10	71-43-2	
Bromochloromethane	**50.0 U**	ug/L	50.0	24.0	50		12/23/19 19:10	74-97-5	
Bromodichloromethane	**50.0 U**	ug/L	50.0	17.4	50		12/23/19 19:10	75-27-4	
Bromoform	**50.0 U**	ug/L	50.0	28.2	50		12/23/19 19:10	75-25-2	
Bromomethane	**50.0 U**	ug/L	50.0	36.4	50		12/23/19 19:10	74-83-9	B
2-Butanone (MEK)	**500 U**	ug/L	500	76.0	50		12/23/19 19:10	78-93-3	
tert-Butyl Alcohol	**627**	ug/L	250	216	50		12/23/19 19:10	75-65-0	
Carbon disulfide	**50.0 U**	ug/L	50.0	16.2	50		12/23/19 19:10	75-15-0	
Carbon tetrachloride	**50.0 U**	ug/L	50.0	21.8	50		12/23/19 19:10	56-23-5	
Chlorobenzene	**50.0 U**	ug/L	50.0	13.1	50		12/23/19 19:10	108-90-7	
Chloroethane	**50.0 U**	ug/L	50.0	32.1	50		12/23/19 19:10	75-00-3	
Chloroform	**50.0 U**	ug/L	50.0	19.6	50		12/23/19 19:10	67-66-3	
Chloromethane	**50.0 U**	ug/L	50.0	20.2	50		12/23/19 19:10	74-87-3	
Dibromochloromethane	**50.0 U**	ug/L	50.0	21.3	50		12/23/19 19:10	124-48-1	
1,2-Dichlorobenzene	**50.0 U**	ug/L	50.0	19.2	50		12/23/19 19:10	95-50-1	
1,3-Dichlorobenzene	**50.0 U**	ug/L	50.0	22.4	50		12/23/19 19:10	541-73-1	
1,4-Dichlorobenzene	**50.0 U**	ug/L	50.0	23.9	50		12/23/19 19:10	106-46-7	
1,1-Dichloroethane	**50.0 U**	ug/L	50.0	12.0	50		12/23/19 19:10	75-34-3	
1,2-Dichloroethane	**50.0 U**	ug/L	50.0	16.4	50		12/23/19 19:10	107-06-2	
1,2-Dichloroethene (Total)	**100 U**	ug/L	100	33.2	50		12/23/19 19:10	540-59-0	
1,1-Dichloroethene	**50.0 U**	ug/L	50.0	12.0	50		12/23/19 19:10	75-35-4	
cis-1,2-Dichloroethene	**50.0 U**	ug/L	50.0	19.0	50		12/23/19 19:10	156-59-2	
trans-1,2-Dichloroethene	**50.0 U**	ug/L	50.0	14.1	50		12/23/19 19:10	156-60-5	
1,2-Dichloropropane	**50.0 U**	ug/L	50.0	14.0	50		12/23/19 19:10	78-87-5	
cis-1,3-Dichloropropene	**50.0 U**	ug/L	50.0	14.4	50		12/23/19 19:10	10061-01-5	
trans-1,3-Dichloropropene	**50.0 U**	ug/L	50.0	16.1	50		12/23/19 19:10	10061-02-6	
Diisopropyl ether	**50.0 U**	ug/L	50.0	12.8	50		12/23/19 19:10	108-20-3	
1,4-Dioxane (p-Dioxane)	**5000 U**	ug/L	5000	3760	50		12/23/19 19:10	123-91-1	1c,L1
Ethylbenzene	**53.0**	ug/L	50.0	19.9	50		12/23/19 19:10	100-41-4	
Ethyl-tert-butyl ether	**50.0 U**	ug/L	50.0	14.3	50		12/23/19 19:10	637-92-3	
2-Hexanone	**500 U**	ug/L	500	29.0	50		12/23/19 19:10	591-78-6	
Methylene Chloride	**50.0 U**	ug/L	50.0	31.9	50		12/23/19 19:10	75-09-2	
4-Methyl-2-pentanone (MIBK)	**500 U**	ug/L	500	21.0	50		12/23/19 19:10	108-10-1	
Methyl-tert-butyl ether	**50.0 U**	ug/L	50.0	12.4	50		12/23/19 19:10	1634-04-4	
Naphthalene	**90.3J**	ug/L	100	41.0	50		12/23/19 19:10	91-20-3	
Styrene	**50.0 U**	ug/L	50.0	16.5	50		12/23/19 19:10	100-42-5	
1,1,2,2-Tetrachloroethane	**50.0 U**	ug/L	50.0	23.6	50		12/23/19 19:10	79-34-5	
Tetrachloroethene	**1040**	ug/L	50.0	19.6	50		12/23/19 19:10	127-18-4	
Toluene	**319**	ug/L	50.0	15.8	50		12/23/19 19:10	108-88-3	
1,2,4-Trichlorobenzene	**50.0 U**	ug/L	50.0	36.7	50		12/23/19 19:10	120-82-1	
1,1,1-Trichloroethane	**50.0 U**	ug/L	50.0	18.8	50		12/23/19 19:10	71-55-6	
1,1,2-Trichloroethane	**50.0 U**	ug/L	50.0	16.6	50		12/23/19 19:10	79-00-5	

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ANALYTICAL RESULTS

Project: 32429
Pace Project No.: 30340757

Sample: 324290004 S-377_CSIA_20191210 **Lab ID: 30340757004** Collected: 12/10/19 15:00 Received: 12/13/19 17:00 Matrix: Water

Comments: • Trip blanks not received with the samples.
• Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B								
Trichloroethene	**50.0 U**	ug/L	50.0	14.6	50		12/23/19 19:10	79-01-6	
1,1,2-Trichlorotrifluoroethane	**2500 U**	ug/L	2500	152	50		12/23/19 19:10	76-13-1	
Vinyl chloride	**50.0 U**	ug/L	50.0	14.4	50		12/23/19 19:10	75-01-4	
Xylene (Total)	**384**	ug/L	150	67.5	50		12/23/19 19:10	1330-20-7	
m&p-Xylene	**360**	ug/L	100	47.1	50		12/23/19 19:10	179601-23-1	
o-Xylene	**24.3J**	ug/L	50.0	20.4	50		12/23/19 19:10	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%.	78-122		50		12/23/19 19:10	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%.	80-120		50		12/23/19 19:10	17060-07-0	
Toluene-d8 (S)	93	%.	80-120		50		12/23/19 19:10	2037-26-5	
Dibromofluoromethane (S)	96	%.	80-120		50		12/23/19 19:10	1868-53-7	
Tentatively Identified Compounds									
Unknown Alkane	**206J**	ug/L			50		12/23/19 19:10		
Unknown Alkane	**299J**	ug/L			50		12/23/19 19:10		
Butane, 2-methyl-	**189J**	ug/L			50		12/23/19 19:10	78-78-4	N
2-Butene, 2-methyl-	**286J**	ug/L			50		12/23/19 19:10	513-35-9	N
Cyclopentene	**300J**	ug/L			50		12/23/19 19:10	142-29-0	N
Unknown Hydrocarbon	**181J**	ug/L			50		12/23/19 19:10		
Cyclopentane, methyl- $$	**152J**	ug/L			50		12/23/19 19:10	96-37-7	N
Unknown Alcohol	**244J**	ug/L			50		12/23/19 19:10		
Unknown Organic Acid	**8730J**	ug/L			50		12/23/19 19:10		

Sample: 324290005 S-376_CSIA_20191212 **Lab ID: 30340757005** Collected: 12/12/19 11:50 Received: 12/13/19 17:00 Matrix: Water

Comments: • Trip blanks not received with the samples.
• Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B								
Acetone	**747**	ug/L	500	280	50		12/23/19 20:02	67-64-1	B
tert-Amylmethyl ether	**50.0 U**	ug/L	50.0	13.4	50		12/23/19 20:02	994-05-8	
Benzene	**69.1**	ug/L	50.0	16.9	50		12/23/19 20:02	71-43-2	
Bromochloromethane	**50.0 U**	ug/L	50.0	24.0	50		12/23/19 20:02	74-97-5	
Bromodichloromethane	**50.0 U**	ug/L	50.0	17.4	50		12/23/19 20:02	75-27-4	
Bromoform	**50.0 U**	ug/L	50.0	28.2	50		12/23/19 20:02	75-25-2	
Bromomethane	**50.0 U**	ug/L	50.0	36.4	50		12/23/19 20:02	74-83-9	B
2-Butanone (MEK)	**500 U**	ug/L	500	76.0	50		12/23/19 20:02	78-93-3	
tert-Butyl Alcohol	**250 U**	ug/L	250	216	50		12/23/19 20:02	75-65-0	
Carbon disulfide	**50.0 U**	ug/L	50.0	16.2	50		12/23/19 20:02	75-15-0	
Carbon tetrachloride	**50.0 U**	ug/L	50.0	21.8	50		12/23/19 20:02	56-23-5	
Chlorobenzene	**50.0 U**	ug/L	50.0	13.1	50		12/23/19 20:02	108-90-7	
Chloroethane	**50.0 U**	ug/L	50.0	32.1	50		12/23/19 20:02	75-00-3	

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ANALYTICAL RESULTS

Project: 32429
Pace Project No.: 30340757

Sample: 324290005 S-376_CSIA_20191212 **Lab ID: 30340757005** Collected: 12/12/19 11:50 Received: 12/13/19 17:00 Matrix: Water

Comments:
- Trip blanks not received with the samples.
- Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B								
Chloroform	**50.0 U**	ug/L	50.0	19.6	50		12/23/19 20:02	67-66-3	
Chloromethane	**50.0 U**	ug/L	50.0	20.2	50		12/23/19 20:02	74-87-3	
Dibromochloromethane	**50.0 U**	ug/L	50.0	21.3	50		12/23/19 20:02	124-48-1	
1,2-Dichlorobenzene	**50.0 U**	ug/L	50.0	19.2	50		12/23/19 20:02	95-50-1	
1,3-Dichlorobenzene	**50.0 U**	ug/L	50.0	22.4	50		12/23/19 20:02	541-73-1	
1,4-Dichlorobenzene	**50.0 U**	ug/L	50.0	23.9	50		12/23/19 20:02	106-46-7	
1,1-Dichloroethane	**50.0 U**	ug/L	50.0	12.0	50		12/23/19 20:02	75-34-3	
1,2-Dichloroethane	**50.0 U**	ug/L	50.0	16.4	50		12/23/19 20:02	107-06-2	
1,2-Dichloroethene (Total)	**100 U**	ug/L	100	33.2	50		12/23/19 20:02	540-59-0	
1,1-Dichloroethene	**50.0 U**	ug/L	50.0	12.0	50		12/23/19 20:02	75-35-4	
cis-1,2-Dichloroethene	**50.0 U**	ug/L	50.0	19.0	50		12/23/19 20:02	156-59-2	
trans-1,2-Dichloroethene	**50.0 U**	ug/L	50.0	14.1	50		12/23/19 20:02	156-60-5	
1,2-Dichloropropane	**50.0 U**	ug/L	50.0	14.0	50		12/23/19 20:02	78-87-5	
cis-1,3-Dichloropropene	**50.0 U**	ug/L	50.0	14.4	50		12/23/19 20:02	10061-01-5	
trans-1,3-Dichloropropene	**50.0 U**	ug/L	50.0	16.1	50		12/23/19 20:02	10061-02-6	
Diisopropyl ether	**50.0 U**	ug/L	50.0	12.8	50		12/23/19 20:02	108-20-3	
1,4-Dioxane (p-Dioxane)	**5000 U**	ug/L	5000	3760	50		12/23/19 20:02	123-91-1	1c,L1
Ethylbenzene	**480**	ug/L	50.0	19.9	50		12/23/19 20:02	100-41-4	
Ethyl-tert-butyl ether	**50.0 U**	ug/L	50.0	14.3	50		12/23/19 20:02	637-92-3	
2-Hexanone	**500 U**	ug/L	500	29.0	50		12/23/19 20:02	591-78-6	
Methylene Chloride	**50.0 U**	ug/L	50.0	31.9	50		12/23/19 20:02	75-09-2	
4-Methyl-2-pentanone (MIBK)	**500 U**	ug/L	500	21.0	50		12/23/19 20:02	108-10-1	
Methyl-tert-butyl ether	**50.0 U**	ug/L	50.0	12.4	50		12/23/19 20:02	1634-04-4	
Naphthalene	**372**	ug/L	100	41.0	50		12/23/19 20:02	91-20-3	
Styrene	**50.0 U**	ug/L	50.0	16.5	50		12/23/19 20:02	100-42-5	
1,1,2,2-Tetrachloroethane	**50.0 U**	ug/L	50.0	23.6	50		12/23/19 20:02	79-34-5	
Tetrachloroethene	**1810**	ug/L	50.0	19.6	50		12/23/19 20:02	127-18-4	
Toluene	**1090**	ug/L	50.0	15.8	50		12/23/19 20:02	108-88-3	
1,2,4-Trichlorobenzene	**50.0 U**	ug/L	50.0	36.7	50		12/23/19 20:02	120-82-1	
1,1,1-Trichloroethane	**50.0 U**	ug/L	50.0	18.8	50		12/23/19 20:02	71-55-6	
1,1,2-Trichloroethane	**50.0 U**	ug/L	50.0	16.6	50		12/23/19 20:02	79-00-5	
Trichloroethene	**50.0 U**	ug/L	50.0	14.6	50		12/23/19 20:02	79-01-6	
1,1,2-Trichlorotrifluoroethane	**2500 U**	ug/L	2500	152	50		12/23/19 20:02	76-13-1	
Vinyl chloride	**50.0 U**	ug/L	50.0	14.4	50		12/23/19 20:02	75-01-4	
Xylene (Total)	**4450**	ug/L	150	67.5	50		12/23/19 20:02	1330-20-7	
m&p-Xylene	**3240**	ug/L	100	47.1	50		12/23/19 20:02	179601-23-1	
o-Xylene	**1210**	ug/L	50.0	20.4	50		12/23/19 20:02	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%.	78-122		50		12/23/19 20:02	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%.	80-120		50		12/23/19 20:02	17060-07-0	
Toluene-d8 (S)	95	%.	80-120		50		12/23/19 20:02	2037-26-5	
Dibromofluoromethane (S)	99	%.	80-120		50		12/23/19 20:02	1868-53-7	
Tentatively Identified Compounds									
Unknown Alkane	**213J**	ug/L			50		12/23/19 20:02		

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ANALYTICAL RESULTS

Project: 32429
Pace Project No.: 30340757

Sample: 324290005 S-376_CSIA_20191212 **Lab ID: 30340757005** Collected: 12/12/19 11:50 Received: 12/13/19 17:00 Matrix: Water

Comments:
- Trip blanks not received with the samples.
- Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B								
Tentatively Identified Compounds									
Butane, 2-methyl-	**284J**	ug/L			50		12/23/19 20:02	78-78-4	N
2-Pentene, (Z)-	**208J**	ug/L			50		12/23/19 20:02	627-20-3	N
2-Butene, 2-methyl-	**221J**	ug/L			50		12/23/19 20:02	513-35-9	N
Cyclopentane, methyl-	**181J**	ug/L			50		12/23/19 20:02	96-37-7	N
Unknown Alcohol	**340J**	ug/L			50		12/23/19 20:02		
Unknown Alcohol	**156J**	ug/L			50		12/23/19 20:02		
Benzene, 1-ethyl-3-methy	**697J**	ug/L			50		12/23/19 20:02	620-14-4	N
Benzene, 1-ethyl-2-methy	**203J**	ug/L			50		12/23/19 20:02	611-14-3	N
Indane	**453J**	ug/L			50		12/23/19 20:02	496-11-7	N

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QUALITY CONTROL DATA

Project: 32429
Pace Project No.: 30340757

QC Batch: 376722 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260B MSV
Associated Lab Samples: 30340757001, 30340757002, 30340757003, 30340757004, 30340757005

METHOD BLANK: 1827564 Matrix: Water
Associated Lab Samples: 30340757001, 30340757002, 30340757003, 30340757004, 30340757005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	1.0 U	1.0	0.38	12/23/19 11:26	
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0	0.47	12/23/19 11:26	
1,1,2-Trichloroethane	ug/L	1.0 U	1.0	0.33	12/23/19 11:26	
1,1,2-Trichlorotrifluoroethane	ug/L	50.0 U	50.0	3.0	12/23/19 11:26	
1,1-Dichloroethane	ug/L	1.0 U	1.0	0.24	12/23/19 11:26	
1,1-Dichloroethene	ug/L	1.0 U	1.0	0.24	12/23/19 11:26	
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0	0.73	12/23/19 11:26	
1,2-Dichlorobenzene	ug/L	1.0 U	1.0	0.38	12/23/19 11:26	
1,2-Dichloroethane	ug/L	1.0 U	1.0	0.33	12/23/19 11:26	
1,2-Dichloroethene (Total)	ug/L	2.0 U	2.0	0.66	12/23/19 11:26	
1,2-Dichloropropane	ug/L	1.0 U	1.0	0.28	12/23/19 11:26	
1,3-Dichlorobenzene	ug/L	1.0 U	1.0	0.45	12/23/19 11:26	
1,4-Dichlorobenzene	ug/L	1.0 U	1.0	0.48	12/23/19 11:26	
1,4-Dioxane (p-Dioxane)	ug/L	100 U	100	75.3	12/23/19 11:26	1c
2-Butanone (MEK)	ug/L	10.0 U	10.0	1.5	12/23/19 11:26	
2-Hexanone	ug/L	10.0 U	10.0	0.58	12/23/19 11:26	
4-Methyl-2-pentanone (MIBK)	ug/L	10.0 U	10.0	0.42	12/23/19 11:26	
Acetone	ug/L	9.6J	10.0	5.6	12/23/19 11:26	
Benzene	ug/L	1.0 U	1.0	0.34	12/23/19 11:26	
Bromochloromethane	ug/L	1.0 U	1.0	0.48	12/23/19 11:26	
Bromodichloromethane	ug/L	1.0 U	1.0	0.35	12/23/19 11:26	
Bromoform	ug/L	1.0 U	1.0	0.56	12/23/19 11:26	
Bromomethane	ug/L	1.2	1.0	0.73	12/23/19 11:26	B
Carbon disulfide	ug/L	1.0 U	1.0	0.32	12/23/19 11:26	
Carbon tetrachloride	ug/L	1.0 U	1.0	0.44	12/23/19 11:26	
Chlorobenzene	ug/L	1.0 U	1.0	0.26	12/23/19 11:26	
Chloroethane	ug/L	1.0 U	1.0	0.64	12/23/19 11:26	
Chloroform	ug/L	1.0 U	1.0	0.39	12/23/19 11:26	
Chloromethane	ug/L	1.0 U	1.0	0.40	12/23/19 11:26	
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0	0.38	12/23/19 11:26	
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0	0.29	12/23/19 11:26	
Dibromochloromethane	ug/L	1.0 U	1.0	0.43	12/23/19 11:26	
Diisopropyl ether	ug/L	1.0 U	1.0	0.26	12/23/19 11:26	
Ethyl-tert-butyl ether	ug/L	1.0 U	1.0	0.29	12/23/19 11:26	
Ethylbenzene	ug/L	1.0 U	1.0	0.40	12/23/19 11:26	
m&p-Xylene	ug/L	2.0 U	2.0	0.94	12/23/19 11:26	
Methyl-tert-butyl ether	ug/L	1.0 U	1.0	0.25	12/23/19 11:26	
Methylene Chloride	ug/L	1.0 U	1.0	0.64	12/23/19 11:26	
Naphthalene	ug/L	2.0 U	2.0	0.82	12/23/19 11:26	
o-Xylene	ug/L	1.0 U	1.0	0.41	12/23/19 11:26	
Styrene	ug/L	1.0 U	1.0	0.33	12/23/19 11:26	

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QUALITY CONTROL DATA

Project: 32429
Pace Project No.: 30340757

METHOD BLANK: 1827564 Matrix: Water
Associated Lab Samples: 30340757001, 30340757002, 30340757003, 30340757004, 30340757005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
tert-Amylmethyl ether	ug/L	1.0 U	1.0	0.27	12/23/19 11:26	
tert-Butyl Alcohol	ug/L	5.0 U	5.0	4.3	12/23/19 11:26	
Tetrachloroethene	ug/L	1.0 U	1.0	0.39	12/23/19 11:26	
Toluene	ug/L	1.0 U	1.0	0.32	12/23/19 11:26	
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0	0.28	12/23/19 11:26	
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0	0.32	12/23/19 11:26	
Trichloroethene	ug/L	1.0 U	1.0	0.29	12/23/19 11:26	
Vinyl chloride	ug/L	1.0 U	1.0	0.29	12/23/19 11:26	
Xylene (Total)	ug/L	3.0 U	3.0	1.4	12/23/19 11:26	
1,2-Dichloroethane-d4 (S)	%.	95	80-120		12/23/19 11:26	
4-Bromofluorobenzene (S)	%.	98	78-122		12/23/19 11:26	
Dibromofluoromethane (S)	%.	96	80-120		12/23/19 11:26	
Toluene-d8 (S)	%.	97	80-120		12/23/19 11:26	

LABORATORY CONTROL SAMPLE: 1827565

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	19.7	99	70-130	
1,1,2,2-Tetrachloroethane	ug/L	20	21.6	108	70-130	
1,1,2-Trichloroethane	ug/L	20	21.3	107	70-130	
1,1,2-Trichlorotrifluoroethane	ug/L	20	20.9J	104	55-158	
1,1-Dichloroethane	ug/L	20	20.9	104	68-121	
1,1-Dichloroethene	ug/L	20	19.2	96	63-129	
1,2,4-Trichlorobenzene	ug/L	20	20.6	103	70-130	
1,2-Dichlorobenzene	ug/L	20	21.1	105	70-130	
1,2-Dichloroethane	ug/L	20	17.7	88	67-117	
1,2-Dichloroethene (Total)	ug/L	40	40.4	101	65-119	
1,2-Dichloropropane	ug/L	20	21.9	110	69-121	
1,3-Dichlorobenzene	ug/L	20	20.6	103	70-130	
1,4-Dichlorobenzene	ug/L	20	20.7	103	70-130	
1,4-Dioxane (p-Dioxane)	ug/L	200	392	196	10-175	1c,L1
2-Butanone (MEK)	ug/L	20	21.1	105	59-128	
2-Hexanone	ug/L	20	23.6	118	49-145	
4-Methyl-2-pentanone (MIBK)	ug/L	20	23.9	120	63-126	
Acetone	ug/L	20	25.1	125	37-150	
Benzene	ug/L	20	20.2	101	70-130	
Bromochloromethane	ug/L	20	18.9	94	59-137	
Bromodichloromethane	ug/L	20	18.6	93	70-130	
Bromoform	ug/L	20	16.0	80	65-130	
Bromomethane	ug/L	20	16.8	84	45-148	B
Carbon disulfide	ug/L	20	18.0	90	55-123	
Carbon tetrachloride	ug/L	20	18.9	94	69-126	
Chlorobenzene	ug/L	20	22.1	110	70-130	
Chloroethane	ug/L	20	20.4	102	68-146	

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QUALITY CONTROL DATA

Project: 32429
Pace Project No.: 30340757

LABORATORY CONTROL SAMPLE: 1827565

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloroform	ug/L	20	19.1	95	69-116	
Chloromethane	ug/L	20	19.8	99	56-129	
cis-1,2-Dichloroethene	ug/L	20	20.4	102	66-118	
cis-1,3-Dichloropropene	ug/L	20	18.1	90	70-130	
Dibromochloromethane	ug/L	20	17.8	89	70-130	
Diisopropyl ether	ug/L	20	21.4	107	65-138	
Ethyl-tert-butyl ether	ug/L	20	20.9	104	59-147	
Ethylbenzene	ug/L	20	22.3	112	70-130	
m&p-Xylene	ug/L	40	43.5	109	70-130	
Methyl-tert-butyl ether	ug/L	20	18.9	95	70-130	
Methylene Chloride	ug/L	20	23.1	115	65-124	
Naphthalene	ug/L	20	20.3	101	69-135	
o-Xylene	ug/L	20	21.3	107	70-130	
Styrene	ug/L	20	22.8	114	70-130	
tert-Amylmethyl ether	ug/L	20	20.3	101	70-130	
tert-Butyl Alcohol	ug/L	100	117	117	63-147	
Tetrachloroethene	ug/L	20	20.6	103	70-130	
Toluene	ug/L	20	21.4	107	70-130	
trans-1,2-Dichloroethene	ug/L	20	20.0	100	64-123	
trans-1,3-Dichloropropene	ug/L	20	18.4	92	68-119	
Trichloroethene	ug/L	20	21.6	108	70-130	
Vinyl chloride	ug/L	20	21.6	108	70-130	
Xylene (Total)	ug/L	60	64.8	108	70-130	
1,2-Dichloroethane-d4 (S)	%.			91	80-120	
4-Bromofluorobenzene (S)	%.			99	78-122	
Dibromofluoromethane (S)	%.			101	80-120	
Toluene-d8 (S)	%.			99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1827566 1827567

Parameter	Units	30341150006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	1.0 U	20	20	15.6	17.5	78	87	67-127	11	30	
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	20	20	16.3	18.1	82	91	55-118	10	30	
1,1,2-Trichloroethane	ug/L	1.0 U	20	20	15.6	17.4	78	87	60-117	11	30	
1,1,2-Trichlorotrifluoroethane	ug/L	50.0 U	20	20	15.3J	19.2J	76	96	10-175		30	
1,1-Dichloroethane	ug/L	1.0 U	20	20	15.9	18.2	80	91	68-118	13	30	
1,1-Dichloroethene	ug/L	1.0 U	20	20	13.1	16.7	66	83	62-126	24	30	
1,2,4-Trichlorobenzene	ug/L	1.0 U	20	20	13.6	16.2	68	81	60-128	17	30	
1,2-Dichlorobenzene	ug/L	1.0 U	20	20	15.7	17.4	78	87	66-116	10	30	
1,2-Dichloroethane	ug/L	1.0 U	20	20	14.7	17.0	74	85	67-117	14	30	
1,2-Dichloroethene (Total)	ug/L	2.0 U	40	40	32.2	35.7	80	89	70-130	10	30	
1,2-Dichloropropane	ug/L	1.0 U	20	20	16.6	18.7	83	94	61-128	12	30	
1,3-Dichlorobenzene	ug/L	1.0 U	20	20	15.2	17.4	76	87	67-117	13	30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 32429
Pace Project No.: 30340757

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1827566 1827567

Parameter	Units	30341150006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dichlorobenzene	ug/L	1.0 U	20	20	15.7	17.5	79	87	68-116	10	30	
1,4-Dioxane (p-Dioxane)	ug/L	100 U	200	200	144	218	72	109	10-175	41	30	1c,R1
2-Butanone (MEK)	ug/L	10.0 U	20	20	18.3	19.4	91	97	63-175	6	30	
2-Hexanone	ug/L	10.0 U	20	20	17.5	20.9	88	105	65-151	18	30	
4-Methyl-2-pentanone (MIBK)	ug/L	10.0 U	20	20	19.6	21.3	98	106	66-149	8	30	
Acetone	ug/L	10.0 U	20	20	17.4	18.9	87	95	10-175	8	30	
Benzene	ug/L	1.0 U	20	20	15.0	16.6	75	83	67-119	10	30	
Bromochloromethane	ug/L	1.0 U	20	20	15.5	16.8	78	84	64-124	8	30	
Bromodichloromethane	ug/L	1.0 U	20	20	13.3	15.2	66	76	67-126	14	30	ML
Bromoform	ug/L	1.0 U	20	20	11.5	12.2	57	61	43-114	6	30	
Bromomethane	ug/L	1.3	20	20	9.7	12.2	42	55	10-164	23	30	B
Carbon disulfide	ug/L	1.0 U	20	20	11.8	15.3	59	77	37-135	26	30	
Carbon tetrachloride	ug/L	1.0 U	20	20	14.6	16.3	73	81	60-137	11	30	
Chlorobenzene	ug/L	1.0 U	20	20	16.4	18.7	82	93	68-119	13	30	
Chloroethane	ug/L	1.0 U	20	20	17.8	17.7	89	89	54-169	1	30	
Chloroform	ug/L	1.0 U	20	20	15.0	16.9	75	84	69-113	11	30	
Chloromethane	ug/L	1.0 U	20	20	18.8	18.7	94	94	43-159	0	30	
cis-1,2-Dichloroethene	ug/L	1.0 U	20	20	16.1	18.1	80	90	65-121	12	30	
cis-1,3-Dichloropropene	ug/L	1.0 U	20	20	12.8	13.7	64	69	61-120	7	30	
Dibromochloromethane	ug/L	1.0 U	20	20	12.3	13.9	61	70	56-121	13	30	
Diisopropyl ether	ug/L	1.0 U	20	20	18.1	19.9	90	99	58-131	9	30	
Ethyl-tert-butyl ether	ug/L	1.0 U	20	20	16.7	18.6	84	93	68-147	11	30	
Ethylbenzene	ug/L	1.0 U	20	20	16.1	18.7	80	93	69-127	15	30	
m&p-Xylene	ug/L	2.0 U	40	40	31.7	36.1	79	90	70-129	13	30	
Methyl-tert-butyl ether	ug/L	1.0 U	20	20	15.2	16.7	76	83	70-130	10	30	
Methylene Chloride	ug/L	1.0 U	20	20	17.8	19.6	89	98	49-144	9	30	
Naphthalene	ug/L	2.0 U	20	20	14.3	16.2	71	81	60-136	13	30	
o-Xylene	ug/L	1.0 U	20	20	15.0	17.5	75	87	68-126	15	30	
Styrene	ug/L	1.0 U	20	20	15.9	18.3	79	91	65-120	14	30	
tert-Amylmethyl ether	ug/L	1.0 U	20	20	15.2	17.5	76	88	45-115	14	30	
tert-Butyl Alcohol	ug/L	5.0 U	100	100	88.2	101	88	101	65-152	13	30	
Tetrachloroethene	ug/L	1.0 U	20	20	15.9	18.6	79	93	64-123	16	30	
Toluene	ug/L	1.0 U	20	20	15.6	17.5	78	87	70-130	11	30	
trans-1,2-Dichloroethene	ug/L	1.0 U	20	20	16.1	17.6	81	88	66-119	9	30	
trans-1,3-Dichloropropene	ug/L	1.0 U	20	20	13.1	15.2	65	76	52-117	15	30	
Trichloroethene	ug/L	1.0 U	20	20	16.7	18.3	83	92	63-125	9	30	
Vinyl chloride	ug/L	1.0 U	20	20	18.6	18.4	93	92	60-133	1	30	
Xylene (Total)	ug/L	3.0 U	60	60	46.8	53.6	78	89	69-128	14	30	
1,2-Dichloroethane-d4 (S)	%.						96	98	80-120			
4-Bromofluorobenzene (S)	%.						97	98	78-122			
Dibromofluoromethane (S)	%.						103	102	80-120			
Toluene-d8 (S)	%.						96	97	80-120			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: 32429
Pace Project No.: 30340757

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA	Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

1c	The analyte did not meet the method recommended minimum RF.
B	Analyte was detected in the associated method blank.
L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
ML	Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.
N	The reported TIC has an 85% or higher match on a mass spectral library search.
R1	RPD value was outside control limits.

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1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 32429
Pace Project No.: 30340757

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30340757001	**324290001 S-375_CSIA_20191209**	EPA 8260B	376722		
30340757002	**324290002 S-374_CSIA_20191209**	EPA 8260B	376722		
30340757003	**324290003 S-378_CSIA_20191209**	EPA 8260B	376722		
30340757004	**324290004 S-377_CSIA_20191210**	EPA 8260B	376722		
30340757005	**324290005 S-376_CSIA_20191212**	EPA 8260B	376722		

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Pace Analytical

CHAIN-OF-CUSTODY RECORD

Phone: (412) 826-5245 Pace Analytical Energy Services, LLC - 220 William Pitt Way - Pittsburgh, PA 15238 Fax: (412) 826-3433

Results to: ruth.welsh@pacelabs.com
mark.mikesell@pacelabs.cor

SEND TO: Pace Greensburg DUE DATE: 12/24/2019

Invoice to: ruth.welsh@pacelabs.com

Lab Proj. # 32429

WO# : 30340757

30340757

Company: Pace Analytical Energy Services, LLC
Co. Address: 220 William Pitt Way, Pittsburgh, PA 15238
Phone #: 412-826-5245
Fax #: 412-826-3433

State of Origin: PA

Preservatives
1-Unpreserved 4-HCL
2- H2SO4 5-NaOH+Zn Ace.
3- HNO3

Parameters Requested

Sample ID	Sample Type: Water	Sample Type: Solid	Date	Time	# Bottles	Preservatives	8260 VOCs	Remarks:
324290001 S-375_CSIA_20191209	X		12/9/19	12:30	2	4	X	001
324290002 S-374_CSIA_20191209	X		12/9/19	14:15	2	4	X	002
324290003 S-378_CSIA_20191210	X		12/10/19	11:00	2	4	X	003
324290004 S-377_CSIA_20191210	X		12/10/19	15:00	2	4	X	004
324290005 S-376_CSIA_20191212	X		12/12/19	11:50	2	4	X	005

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
E. Louis	PAES	12/13/2019	14:30		PACE	12-13-19	1609
	PACE	12-13-19	1705		PACE	12/13/19	1712

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical®

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

32429 # 30340757

ALL SHADED AREAS are for LAB USE ONLY

Company: Evergreen c/o Stantec	Billing Information:
Address: 1060 Andrew Drive St 140	
Report To: Andrew Klingbeil	Email To: Andrew.Klingbeil@Stantec.com
Copy To: Mark Legas (Pace)	Site Collection Info/Address: PES
Customer Project Name/Number: PES Complex Act 4 RI/213402602.6	State: PA / County/City: Philadelphia / Time Zone Collected: [ ] PT [ ] MT [ ] CT [✓] ET
Phone: / Email:	Site/Facility ID #:
Collected By (print): Doulton Campbell	Purchase Order #: / Quote #:
Collected By (signature):	Turnaround Date Required: Standard
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: _____ [ ] Hold: _____	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)

Compliance Monitoring? [ ] Yes [ ] No	
DW PWS ID #: / DW Location Code:	
Immediately Packed on Ice: [ ] Yes [ ] No	
Field Filtered (if applicable): [ ] Yes [ ] No	Analysis: _____

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

Container Preservative Type ** | Lab Project Manager:

Analyses

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

	Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	C3-C12 PIANO	CSIA VOC FULL SCAN	CSIA ISOP MCYP C4H12 TMS	CSIA BTEX MCYP C4H12 TMB	CSIA BTEX TMB	Lab Sample Receipt Checklist / Lab Profile/Line
1	S-42E_BASE_GRAB_20191206	WT	G	12/06	1310					X	X				
2	S-376_HOLD_20191206	" P	G	12/06	1400										
3	S-375_BASE_GRAB_20191209	WT	G	12/09	1130					X	X	X			
4	S-375_CSIA_20191209	WT	G	12/09	1230							X			
5	S-374_BASE_GRAB_20191209	WT	G	12/09	1250						X				
6	S-374_CSIA_20191209	WT	G	12/09	1415							X			
7	S-378_BASE_GRAB_20191210	WT	G	12/10	1000						X				
8	S-378_CSIA_20191210	WT	G	12/10	1100							X			
9	S-377_BASE_GRAB_20191210	WT	G	12/10	1150					X	X				
10	S-377_CSIA_20191210	WT	G	12/10	1500							X			

Lab Sample Receipt Checklist:

- Custody Seals Present/Intact: Y N NA
- Custody Signatures Present: Y N NA
- Collector Signature Present: Y N NA
- Bottles Intact: Y N NA
- Correct Bottles: Y N NA
- Sufficient Volume: Y N NA
- Samples Received on Ice: Y N NA
- VOA - Headspace Acceptable: Y N NA
- USDA Regulated Soils: Y N NA
- Samples in Holding Time: Y N NA
- Residual Chlorine Present: Y N NA
- Cl Strips: _____
- Sample pH Acceptable: Y N NA
- pH Strips: _____
- Sulfide Present: Y N NA
- Lead Acetate Strips: _____

LAB USE ONLY:
Lab Sample # / Comments:

Customer Remarks / Special Conditions / Possible Hazards:
Hold S-376_HOLD-20191206 until further notice.

Type of Ice Used: Wet Blue Dry (None)

Packing Material Used: bubble wrap

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 778867179238459894 9508

Samples received via: (FEDEX) UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: (Y) N NA
Therm ID#: _____
Cooler 1 Temp Upon Receipt: 3 oC
Cooler 1 Therm Corr. Factor: _____ oC
Cooler 1 Corrected Temp: _____ oC
Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Andrew Klingbeil / Stantec	12/12 1200		12/12 1215
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
	12/13 15:00	Laura Pitts	12.13.19 1030
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N (NA)
HCL MeOH TSP Other

Non Conformance(s): (YES) / NO

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

#_30340757

#~~30340757~~ SUB 12/13/19

32429

Page: 2 of 2

Section A
Required Client Information:

Company:	Evergreen c/o Stantec
Address:	1060 Andrew Drive Suite 140
	West Chester, PA 19380
Email To:	andrew.klingbeil@stantec.com
Phone: 610-850-1420	Fax:
Requested Due Date/TAT:	Standard

Section B
Required Project Information:

Report To:	Andrew Klingbeil
Copy To:	Mark Cejas (Pace)
Purchase Order No.:	
Project Name:	PES Complex AOI 4 RI
Project Number:	213402602.6

Section C
Invoice Information:

Attention:	Andrew Klingbeil
Company Name:	Stantec
Address:	1060 Andrew Drive Suite 140
Pace Quote Reference:	
Pace Project Manager:	Ruth Welsh
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☑ OTHER DEP/EPA

Site Location STATE: PA

Section D
Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	C3-C12 PiANO	C8-C40 FULL SCAN	CSIA ISOP,MCYP,CYH,1	CSIA BTEX,ISOP,MCYP,	CSIA BTEX, 124TMB	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
																		Y/N	N	N	N	N			
1	S-376-GS14-20191212	WT	G	12/12		12/12	1150		6				X								X				
2																									
3																									
4																									
5																									
6																									
7																									
8																									
9																									
10																									
11																									
12																									

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
SAVE EXTRA SAMPLE VOLUME FOR POSSIBLE FUTURE ANALYSIS IF POSSIBLE	Doulton Campbell / Stantec	12/12	1200		12/12	12:15	
SEE TEST REQUEST SHEET FROM ANDREW KLINGBEIL FOR CSIA DETAILS		12/12	1400	PACE	12.13	1030	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Doulton Campbell

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pittsburgh Lab Sample Condition Upon Receipt

Pace Analytical

Client Name: Pace Energy Project# 30340757

Label SM
LIMS Login SM

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other _____

Tracking #: NA

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☑ no

Thermometer Used 9 Type of Ice: Wet Blue None

Cooler Temperature Observed Temp 4.1 °C Correction Factor: 0 °C Final Temp: 4.1 °C

Temp should be above freezing to 6°C

Comments:	Yes	No	N/A	pH paper Lot# NA	Date and Initials of person examining contents: 12/13/19 JLB
Chain of Custody Present:	✓			1.	
Chain of Custody Filled Out:	✓			2.	
Chain of Custody Relinquished:	✓			3.	
Sampler Name & Signature on COC:	✓			4.	
Sample Labels match COC:	✓			5.	
-Includes date/time/ID Matrix: WT					
Samples Arrived within Hold Time:	✓			6.	
Short Hold Time Analysis (<72hr remaining):		✓		7.	
Rush Turn Around Time Requested:		✓		8.	
Sufficient Volume:	✓			9.	
Correct Containers Used:	✓			10.	
-Pace Containers Used:	✓				
Containers Intact:	✓			11.	
Orthophosphate field filtered			✓	12.	
Hex Cr Aqueous sample field filtered			✓	13.	
Organic Samples checked for dechlorination:			✓	14.	
Filtered volume received for Dissolved tests			✓	15.	
All containers have been checked for preservation. exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix			✓	16.	
All containers meet method preservation requirements.	✓			Initial when completed JLB	Date/time of preservation
				Lot # of added preservative	
Headspace in VOA Vials (>6mm):		✓		17.	
Trip Blank Present:		✓		18.	
Trip Blank Custody Seals Present			✓		
Rad Samples Screened < 0.5 mrem/hr			✓	Initial when completed:	Date:

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

☐ **A check in this box indicates that additional information has been stored in ereports.**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

***PM review** is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

J:\QAQC\Master\Document Management\Sample Mgt\Sample Condition Upon Receipt Pittsburgh (C056-9 5April2019)

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

December 30, 2019

Mark Mikesell
Pace Analytical Energy Services
220 William Pitt Way
Pittsburgh, PA 15238

RE: Project: 32477
Pace Project No.: 30341748

Dear Mark Mikesell:
Enclosed are the analytical results for sample(s) received by the laboratory on December 19, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

David A. Pichette
david.pichette@pacelabs.com
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Project Manager

Enclosures

cc: Ms. Ruth Welsh, Pace Analytical Energy Services

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CERTIFICATIONS

Project: 32477
Pace Project No.: 30341748

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 32477
Pace Project No.: 30341748

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30341748001	**324770001RW-703_CSIA_20191213**	Water	12/13/19 10:25	12/19/19 15:15
30341748002	**324770002 S-240_CSIA_20191213**	Water	12/13/19 15:00	12/19/19 15:15

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 32477
Pace Project No.: 30341748

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30341748001	**324770001RW-703_CSIA_20191213**	EPA 8260B	LEL	47	PASI-PA
30341748002	**324770002 S-240_CSIA_20191213**	EPA 8260B	LEL	47	PASI-PA

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PROJECT NARRATIVE

Project: 32477
Pace Project No.: 30341748

Date: December 30, 2019

324770001RW-703_CSIA_20191213 (Lab ID: 30341748001)

- Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

324770002 S-240_CSIA_20191213 (Lab ID: 30341748002)

- Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

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PROJECT NARRATIVE

Project: 32477
Pace Project No.: 30341748

Method: **EPA 8260B**
Description: 8260B MSV
Client: Pace Analytical Energy Services, LLC
Date: December 30, 2019

General Information:
2 samples were analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: 376722

B: Analyte was detected in the associated method blank.

- BLANK for HBN 376722 [MSV/4790 (Lab ID: 1827564)
  - Bromomethane

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 376722

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30341150006

ML: Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.

- MS (Lab ID: 1827566)
  - Bromodichloromethane

Additional Comments:

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PROJECT NARRATIVE

Project: 32477
Pace Project No.: 30341748

Method: **EPA 8260B**
Description: 8260B MSV
Client: Pace Analytical Energy Services, LLC
Date: December 30, 2019

Analyte Comments:

QC Batch: 376722

1c: There is insufficient sample volume for re-analysis.

- 324770001RW-703_CSIA_20191213 (Lab ID: 30341748001)
  - Benzene

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- 324770001RW-703_CSIA_20191213 (Lab ID: 30341748001)
  - Benzene

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 32477
Pace Project No.: 30341748

Sample: 324770001RW-703_CSIA_20191213 **Lab ID: 30341748001** Collected: 12/13/19 10:25 Received: 12/19/19 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B								
1,1,1-Trichloroethane	ND	ug/L	50.0	18.8	50		12/23/19 17:27	71-55-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	50.0	23.6	50		12/23/19 17:27	79-34-5	
1,1,2-Trichloroethane	ND	ug/L	50.0	16.6	50		12/23/19 17:27	79-00-5	
1,1-Dichloroethane	ND	ug/L	50.0	12.0	50		12/23/19 17:27	75-34-3	
1,1-Dichloroethene	ND	ug/L	50.0	12.0	50		12/23/19 17:27	75-35-4	
1,2,4-Trichlorobenzene	ND	ug/L	50.0	36.7	50		12/23/19 17:27	120-82-1	
1,2-Dichlorobenzene	ND	ug/L	50.0	19.2	50		12/23/19 17:27	95-50-1	
1,2-Dichloroethane	ND	ug/L	50.0	16.4	50		12/23/19 17:27	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/L	100	33.2	50		12/23/19 17:27	540-59-0	
1,2-Dichloropropane	ND	ug/L	50.0	14.0	50		12/23/19 17:27	78-87-5	
1,3-Dichlorobenzene	ND	ug/L	50.0	22.4	50		12/23/19 17:27	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	50.0	23.9	50		12/23/19 17:27	106-46-7	
2-Butanone (MEK)	ND	ug/L	500	76.0	50		12/23/19 17:27	78-93-3	
2-Hexanone	ND	ug/L	500	29.0	50		12/23/19 17:27	591-78-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	500	21.0	50		12/23/19 17:27	108-10-1	
Acetone	**565**	ug/L	500	280	50		12/23/19 17:27	67-64-1	
Benzene	**25300**	ug/L	50.0	16.9	50		12/23/19 17:27	71-43-2	1c,E
Bromochloromethane	ND	ug/L	50.0	24.0	50		12/23/19 17:27	74-97-5	
Bromodichloromethane	ND	ug/L	50.0	17.4	50		12/23/19 17:27	75-27-4	
Bromoform	ND	ug/L	50.0	28.2	50		12/23/19 17:27	75-25-2	
Bromomethane	ND	ug/L	50.0	36.4	50		12/23/19 17:27	74-83-9	B
Carbon disulfide	ND	ug/L	50.0	16.2	50		12/23/19 17:27	75-15-0	
Carbon tetrachloride	ND	ug/L	50.0	21.8	50		12/23/19 17:27	56-23-5	
Chlorobenzene	ND	ug/L	50.0	13.1	50		12/23/19 17:27	108-90-7	
Chloroethane	ND	ug/L	50.0	32.1	50		12/23/19 17:27	75-00-3	
Chloroform	ND	ug/L	50.0	19.6	50		12/23/19 17:27	67-66-3	
Chloromethane	ND	ug/L	50.0	20.2	50		12/23/19 17:27	74-87-3	
Dibromochloromethane	ND	ug/L	50.0	21.3	50		12/23/19 17:27	124-48-1	
Ethylbenzene	**1020**	ug/L	50.0	19.9	50		12/23/19 17:27	100-41-4	
Methyl-tert-butyl ether	**128**	ug/L	50.0	12.4	50		12/23/19 17:27	1634-04-4	
Methylene Chloride	ND	ug/L	50.0	31.9	50		12/23/19 17:27	75-09-2	
Styrene	ND	ug/L	50.0	16.5	50		12/23/19 17:27	100-42-5	
Tetrachloroethene	**145**	ug/L	50.0	19.6	50		12/23/19 17:27	127-18-4	
Toluene	**13300**	ug/L	50.0	15.8	50		12/23/19 17:27	108-88-3	
Trichloroethene	ND	ug/L	50.0	14.6	50		12/23/19 17:27	79-01-6	
Vinyl chloride	ND	ug/L	50.0	14.4	50		12/23/19 17:27	75-01-4	
Xylene (Total)	**6510**	ug/L	150	67.5	50		12/23/19 17:27	1330-20-7	
cis-1,2-Dichloroethene	ND	ug/L	50.0	19.0	50		12/23/19 17:27	156-59-2	
cis-1,3-Dichloropropene	ND	ug/L	50.0	14.4	50		12/23/19 17:27	10061-01-5	
m&p-Xylene	**4540**	ug/L	100	47.1	50		12/23/19 17:27	179601-23-1	
o-Xylene	**1970**	ug/L	50.0	20.4	50		12/23/19 17:27	95-47-6	
trans-1,2-Dichloroethene	ND	ug/L	50.0	14.1	50		12/23/19 17:27	156-60-5	
trans-1,3-Dichloropropene	ND	ug/L	50.0	16.1	50		12/23/19 17:27	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%.	78-122		50		12/23/19 17:27	460-00-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 32477
Pace Project No.: 30341748

Sample: 324770001RW-703_CSIA_20191213 **Lab ID: 30341748001** Collected: 12/13/19 10:25 Received: 12/19/19 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B								
Surrogates									
1,2-Dichloroethane-d4 (S)	93	%.	80-120		50		12/23/19 17:27	17060-07-0	
Toluene-d8 (S)	97	%.	80-120		50		12/23/19 17:27	2037-26-5	
Dibromofluoromethane (S)	96	%.	80-120		50		12/23/19 17:27	1868-53-7	

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ANALYTICAL RESULTS

Project: 32477
Pace Project No.: 30341748

Sample: 324770002 S-240_CSIA_20191213 **Lab ID: 30341748002** Collected: 12/13/19 15:00 Received: 12/19/19 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B								
1,1,1-Trichloroethane	ND	ug/L	50.0	18.8	50		12/23/19 17:53	71-55-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	50.0	23.6	50		12/23/19 17:53	79-34-5	
1,1,2-Trichloroethane	ND	ug/L	50.0	16.6	50		12/23/19 17:53	79-00-5	
1,1-Dichloroethane	ND	ug/L	50.0	12.0	50		12/23/19 17:53	75-34-3	
1,1-Dichloroethene	ND	ug/L	50.0	12.0	50		12/23/19 17:53	75-35-4	
1,2,4-Trichlorobenzene	ND	ug/L	50.0	36.7	50		12/23/19 17:53	120-82-1	
1,2-Dichlorobenzene	ND	ug/L	50.0	19.2	50		12/23/19 17:53	95-50-1	
1,2-Dichloroethane	ND	ug/L	50.0	16.4	50		12/23/19 17:53	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/L	100	33.2	50		12/23/19 17:53	540-59-0	
1,2-Dichloropropane	ND	ug/L	50.0	14.0	50		12/23/19 17:53	78-87-5	
1,3-Dichlorobenzene	ND	ug/L	50.0	22.4	50		12/23/19 17:53	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	50.0	23.9	50		12/23/19 17:53	106-46-7	
2-Butanone (MEK)	ND	ug/L	500	76.0	50		12/23/19 17:53	78-93-3	
2-Hexanone	ND	ug/L	500	29.0	50		12/23/19 17:53	591-78-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	500	21.0	50		12/23/19 17:53	108-10-1	
Acetone	**714**	ug/L	500	280	50		12/23/19 17:53	67-64-1	
Benzene	**8480**	ug/L	50.0	16.9	50		12/23/19 17:53	71-43-2	
Bromochloromethane	ND	ug/L	50.0	24.0	50		12/23/19 17:53	74-97-5	
Bromodichloromethane	ND	ug/L	50.0	17.4	50		12/23/19 17:53	75-27-4	
Bromoform	ND	ug/L	50.0	28.2	50		12/23/19 17:53	75-25-2	
Bromomethane	ND	ug/L	50.0	36.4	50		12/23/19 17:53	74-83-9	B
Carbon disulfide	ND	ug/L	50.0	16.2	50		12/23/19 17:53	75-15-0	
Carbon tetrachloride	ND	ug/L	50.0	21.8	50		12/23/19 17:53	56-23-5	
Chlorobenzene	ND	ug/L	50.0	13.1	50		12/23/19 17:53	108-90-7	
Chloroethane	ND	ug/L	50.0	32.1	50		12/23/19 17:53	75-00-3	
Chloroform	ND	ug/L	50.0	19.6	50		12/23/19 17:53	67-66-3	
Chloromethane	ND	ug/L	50.0	20.2	50		12/23/19 17:53	74-87-3	
Dibromochloromethane	ND	ug/L	50.0	21.3	50		12/23/19 17:53	124-48-1	
Ethylbenzene	**511**	ug/L	50.0	19.9	50		12/23/19 17:53	100-41-4	
Methyl-tert-butyl ether	**3180**	ug/L	50.0	12.4	50		12/23/19 17:53	1634-04-4	
Methylene Chloride	ND	ug/L	50.0	31.9	50		12/23/19 17:53	75-09-2	
Styrene	ND	ug/L	50.0	16.5	50		12/23/19 17:53	100-42-5	
Tetrachloroethene	ND	ug/L	50.0	19.6	50		12/23/19 17:53	127-18-4	
Toluene	**296**	ug/L	50.0	15.8	50		12/23/19 17:53	108-88-3	
Trichloroethene	ND	ug/L	50.0	14.6	50		12/23/19 17:53	79-01-6	
Vinyl chloride	ND	ug/L	50.0	14.4	50		12/23/19 17:53	75-01-4	
Xylene (Total)	**1830**	ug/L	150	67.5	50		12/23/19 17:53	1330-20-7	
cis-1,2-Dichloroethene	ND	ug/L	50.0	19.0	50		12/23/19 17:53	156-59-2	
cis-1,3-Dichloropropene	ND	ug/L	50.0	14.4	50		12/23/19 17:53	10061-01-5	
m&p-Xylene	**1650**	ug/L	100	47.1	50		12/23/19 17:53	179601-23-1	
o-Xylene	**188**	ug/L	50.0	20.4	50		12/23/19 17:53	95-47-6	
trans-1,2-Dichloroethene	ND	ug/L	50.0	14.1	50		12/23/19 17:53	156-60-5	
trans-1,3-Dichloropropene	ND	ug/L	50.0	16.1	50		12/23/19 17:53	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%.	78-122		50		12/23/19 17:53	460-00-4	

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ANALYTICAL RESULTS

Project: 32477
Pace Project No.: 30341748

Sample: 324770002 S-240_CSIA_20191213 **Lab ID: 30341748002** Collected: 12/13/19 15:00 Received: 12/19/19 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B								
Surrogates									
1,2-Dichloroethane-d4 (S)	95	%.	80-120		50		12/23/19 17:53	17060-07-0	
Toluene-d8 (S)	94	%.	80-120		50		12/23/19 17:53	2037-26-5	
Dibromofluoromethane (S)	93	%.	80-120		50		12/23/19 17:53	1868-53-7	

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QUALITY CONTROL DATA

Project: 32477
Pace Project No.: 30341748

QC Batch: 376722 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260B MSV
Associated Lab Samples: 30341748001, 30341748002

METHOD BLANK: 1827564 Matrix: Water
Associated Lab Samples: 30341748001, 30341748002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	0.38	12/23/19 11:26	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.47	12/23/19 11:26	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.33	12/23/19 11:26	
1,1-Dichloroethane	ug/L	ND	1.0	0.24	12/23/19 11:26	
1,1-Dichloroethene	ug/L	ND	1.0	0.24	12/23/19 11:26	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.73	12/23/19 11:26	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.38	12/23/19 11:26	
1,2-Dichloroethane	ug/L	ND	1.0	0.33	12/23/19 11:26	
1,2-Dichloroethene (Total)	ug/L	ND	2.0	0.66	12/23/19 11:26	
1,2-Dichloropropane	ug/L	ND	1.0	0.28	12/23/19 11:26	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.45	12/23/19 11:26	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.48	12/23/19 11:26	
2-Butanone (MEK)	ug/L	ND	10.0	1.5	12/23/19 11:26	
2-Hexanone	ug/L	ND	10.0	0.58	12/23/19 11:26	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.42	12/23/19 11:26	
Acetone	ug/L	ND	10.0	5.6	12/23/19 11:26	
Benzene	ug/L	ND	1.0	0.34	12/23/19 11:26	
Bromochloromethane	ug/L	ND	1.0	0.48	12/23/19 11:26	
Bromodichloromethane	ug/L	ND	1.0	0.35	12/23/19 11:26	
Bromoform	ug/L	ND	1.0	0.56	12/23/19 11:26	
Bromomethane	ug/L	1.2	1.0	0.73	12/23/19 11:26	B
Carbon disulfide	ug/L	ND	1.0	0.32	12/23/19 11:26	
Carbon tetrachloride	ug/L	ND	1.0	0.44	12/23/19 11:26	
Chlorobenzene	ug/L	ND	1.0	0.26	12/23/19 11:26	
Chloroethane	ug/L	ND	1.0	0.64	12/23/19 11:26	
Chloroform	ug/L	ND	1.0	0.39	12/23/19 11:26	
Chloromethane	ug/L	ND	1.0	0.40	12/23/19 11:26	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.38	12/23/19 11:26	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.29	12/23/19 11:26	
Dibromochloromethane	ug/L	ND	1.0	0.43	12/23/19 11:26	
Ethylbenzene	ug/L	ND	1.0	0.40	12/23/19 11:26	
m&p-Xylene	ug/L	ND	2.0	0.94	12/23/19 11:26	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.25	12/23/19 11:26	
Methylene Chloride	ug/L	ND	1.0	0.64	12/23/19 11:26	
o-Xylene	ug/L	ND	1.0	0.41	12/23/19 11:26	
Styrene	ug/L	ND	1.0	0.33	12/23/19 11:26	
Tetrachloroethene	ug/L	ND	1.0	0.39	12/23/19 11:26	
Toluene	ug/L	ND	1.0	0.32	12/23/19 11:26	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.28	12/23/19 11:26	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.32	12/23/19 11:26	
Trichloroethene	ug/L	ND	1.0	0.29	12/23/19 11:26	

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REPORT OF LABORATORY ANALYSIS

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 32477
Pace Project No.: 30341748

METHOD BLANK: 1827564 Matrix: Water
Associated Lab Samples: 30341748001, 30341748002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Vinyl chloride	ug/L	ND	1.0	0.29	12/23/19 11:26	
Xylene (Total)	ug/L	ND	3.0	1.4	12/23/19 11:26	
1,2-Dichloroethane-d4 (S)	%.	95	80-120		12/23/19 11:26	
4-Bromofluorobenzene (S)	%.	98	78-122		12/23/19 11:26	
Dibromofluoromethane (S)	%.	96	80-120		12/23/19 11:26	
Toluene-d8 (S)	%.	97	80-120		12/23/19 11:26	

LABORATORY CONTROL SAMPLE: 1827565

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	19.7	99	70-130	
1,1,2,2-Tetrachloroethane	ug/L	20	21.6	108	70-130	
1,1,2-Trichloroethane	ug/L	20	21.3	107	70-130	
1,1-Dichloroethane	ug/L	20	20.9	104	68-121	
1,1-Dichloroethene	ug/L	20	19.2	96	63-129	
1,2,4-Trichlorobenzene	ug/L	20	20.6	103	70-130	
1,2-Dichlorobenzene	ug/L	20	21.1	105	70-130	
1,2-Dichloroethane	ug/L	20	17.7	88	67-117	
1,2-Dichloroethene (Total)	ug/L	40	40.4	101	65-119	
1,2-Dichloropropane	ug/L	20	21.9	110	69-121	
1,3-Dichlorobenzene	ug/L	20	20.6	103	70-130	
1,4-Dichlorobenzene	ug/L	20	20.7	103	70-130	
2-Butanone (MEK)	ug/L	20	21.1	105	59-128	
2-Hexanone	ug/L	20	23.6	118	49-145	
4-Methyl-2-pentanone (MIBK)	ug/L	20	23.9	120	63-126	
Acetone	ug/L	20	25.1	125	37-150	
Benzene	ug/L	20	20.2	101	70-130	
Bromochloromethane	ug/L	20	18.9	94	59-137	
Bromodichloromethane	ug/L	20	18.6	93	70-130	
Bromoform	ug/L	20	16.0	80	65-130	
Bromomethane	ug/L	20	16.8	84	45-148	B
Carbon disulfide	ug/L	20	18.0	90	55-123	
Carbon tetrachloride	ug/L	20	18.9	94	69-126	
Chlorobenzene	ug/L	20	22.1	110	70-130	
Chloroethane	ug/L	20	20.4	102	68-146	
Chloroform	ug/L	20	19.1	95	69-116	
Chloromethane	ug/L	20	19.8	99	56-129	
cis-1,2-Dichloroethene	ug/L	20	20.4	102	66-118	
cis-1,3-Dichloropropene	ug/L	20	18.1	90	70-130	
Dibromochloromethane	ug/L	20	17.8	89	70-130	
Ethylbenzene	ug/L	20	22.3	112	70-130	
m&p-Xylene	ug/L	40	43.5	109	70-130	
Methyl-tert-butyl ether	ug/L	20	18.9	95	70-130	
Methylene Chloride	ug/L	20	23.1	115	65-124	

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 32477
Pace Project No.: 30341748

LABORATORY CONTROL SAMPLE: 1827565

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
o-Xylene	ug/L	20	21.3	107	70-130	
Styrene	ug/L	20	22.8	114	70-130	
Tetrachloroethene	ug/L	20	20.6	103	70-130	
Toluene	ug/L	20	21.4	107	70-130	
trans-1,2-Dichloroethene	ug/L	20	20.0	100	64-123	
trans-1,3-Dichloropropene	ug/L	20	18.4	92	68-119	
Trichloroethene	ug/L	20	21.6	108	70-130	
Vinyl chloride	ug/L	20	21.6	108	70-130	
Xylene (Total)	ug/L	60	64.8	108	70-130	
1,2-Dichloroethane-d4 (S)	%.			91	80-120	
4-Bromofluorobenzene (S)	%.			99	78-122	
Dibromofluoromethane (S)	%.			101	80-120	
Toluene-d8 (S)	%.			99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1827566 1827567

Parameter	Units	30341150006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	1.0 U	20	20	15.6	17.5	78	87	67-127	11	30	
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	20	20	16.3	18.1	82	91	55-118	10	30	
1,1,2-Trichloroethane	ug/L	1.0 U	20	20	15.6	17.4	78	87	60-117	11	30	
1,1-Dichloroethane	ug/L	1.0 U	20	20	15.9	18.2	80	91	68-118	13	30	
1,1-Dichloroethene	ug/L	1.0 U	20	20	13.1	16.7	66	83	62-126	24	30	
1,2,4-Trichlorobenzene	ug/L	1.0 U	20	20	13.6	16.2	68	81	60-128	17	30	
1,2-Dichlorobenzene	ug/L	1.0 U	20	20	15.7	17.4	78	87	66-116	10	30	
1,2-Dichloroethane	ug/L	1.0 U	20	20	14.7	17.0	74	85	67-117	14	30	
1,2-Dichloroethene (Total)	ug/L	2.0 U	40	40	32.2	35.7	80	89	70-130	10	30	
1,2-Dichloropropane	ug/L	1.0 U	20	20	16.6	18.7	83	94	61-128	12	30	
1,3-Dichlorobenzene	ug/L	1.0 U	20	20	15.2	17.4	76	87	67-117	13	30	
1,4-Dichlorobenzene	ug/L	1.0 U	20	20	15.7	17.5	79	87	68-116	10	30	
2-Butanone (MEK)	ug/L	10.0 U	20	20	18.3	19.4	91	97	63-175	6	30	
2-Hexanone	ug/L	10.0 U	20	20	17.5	20.9	88	105	65-151	18	30	
4-Methyl-2-pentanone (MIBK)	ug/L	10.0 U	20	20	19.6	21.3	98	106	66-149	8	30	
Acetone	ug/L	10.0 U	20	20	17.4	18.9	87	95	10-175	8	30	
Benzene	ug/L	1.0 U	20	20	15.0	16.6	75	83	67-119	10	30	
Bromochloromethane	ug/L	1.0 U	20	20	15.5	16.8	78	84	64-124	8	30	
Bromodichloromethane	ug/L	1.0 U	20	20	13.3	15.2	66	76	67-126	14	30	ML
Bromoform	ug/L	1.0 U	20	20	11.5	12.2	57	61	43-114	6	30	
Bromomethane	ug/L	1.3	20	20	9.7	12.2	42	55	10-164	23	30	B
Carbon disulfide	ug/L	1.0 U	20	20	11.8	15.3	59	77	37-135	26	30	
Carbon tetrachloride	ug/L	1.0 U	20	20	14.6	16.3	73	81	60-137	11	30	
Chlorobenzene	ug/L	1.0 U	20	20	16.4	18.7	82	93	68-119	13	30	
Chloroethane	ug/L	1.0 U	20	20	17.8	17.7	89	89	54-169	1	30	
Chloroform	ug/L	1.0 U	20	20	15.0	16.9	75	84	69-113	11	30	

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REPORT OF LABORATORY ANALYSIS

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 32477
Pace Project No.: 30341748

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1827566 1827567

Parameter	Units	30341150006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloromethane	ug/L	1.0 U	20	20	18.8	18.7	94	94	43-159	0	30	
cis-1,2-Dichloroethene	ug/L	1.0 U	20	20	16.1	18.1	80	90	65-121	12	30	
cis-1,3-Dichloropropene	ug/L	1.0 U	20	20	12.8	13.7	64	69	61-120	7	30	
Dibromochloromethane	ug/L	1.0 U	20	20	12.3	13.9	61	70	56-121	13	30	
Ethylbenzene	ug/L	1.0 U	20	20	16.1	18.7	80	93	69-127	15	30	
m&p-Xylene	ug/L	2.0 U	40	40	31.7	36.1	79	90	70-129	13	30	
Methyl-tert-butyl ether	ug/L	1.0 U	20	20	15.2	16.7	76	83	70-130	10	30	
Methylene Chloride	ug/L	1.0 U	20	20	17.8	19.6	89	98	49-144	9	30	
o-Xylene	ug/L	1.0 U	20	20	15.0	17.5	75	87	68-126	15	30	
Styrene	ug/L	1.0 U	20	20	15.9	18.3	79	91	65-120	14	30	
Tetrachloroethene	ug/L	1.0 U	20	20	15.9	18.6	79	93	64-123	16	30	
Toluene	ug/L	1.0 U	20	20	15.6	17.5	78	87	70-130	11	30	
trans-1,2-Dichloroethene	ug/L	1.0 U	20	20	16.1	17.6	81	88	66-119	9	30	
trans-1,3-Dichloropropene	ug/L	1.0 U	20	20	13.1	15.2	65	76	52-117	15	30	
Trichloroethene	ug/L	1.0 U	20	20	16.7	18.3	83	92	63-125	9	30	
Vinyl chloride	ug/L	1.0 U	20	20	18.6	18.4	93	92	60-133	1	30	
Xylene (Total)	ug/L	3.0 U	60	60	46.8	53.6	78	89	69-128	14	30	
1,2-Dichloroethane-d4 (S)	%.						96	98	80-120			
4-Bromofluorobenzene (S)	%.						97	98	78-122			
Dibromofluoromethane (S)	%.						103	102	80-120			
Toluene-d8 (S)	%.						96	97	80-120			

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Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: 32477
Pace Project No.: 30341748

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA	Pace Analytical Services - Greensburg

SAMPLE QUALIFIERS

Sample: 30341748001

[1]	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

Sample: 30341748002

[1]	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

ANALYTE QUALIFIERS

1c	There is insufficient sample volume for re-analysis.
B	Analyte was detected in the associated method blank.
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
ML	Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.

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(724)850-5600

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 32477
Pace Project No.: 30341748

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30341748001	**324770001RW-703_CSIA_20191213**	EPA 8260B	376722		
30341748002	**324770002 S-240_CSIA_20191213**	EPA 8260B	376722		

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Pace Analytical®

CHAIN-OF-CUSTODY RECORD

Phone: (412) 826-5245 Pace Analytical Energy Services, LLC - 220 William Pitt Way - Pittsburgh, PA 15238 Fax: (412) 826-3433

SEND TO: Pace Greensburg DUE DATE: 12/30/2019

Results to: ruth.welsh@pacelabs.com
mark.mikesell@pacelabs.com

Invoice to: ruth.welsh@pacelabs.com

Lab Proj. # 32477

Company: Pace Analytical Energy Services, LLC
Co. Address: 220 William Pitt Way, Pittsburgh, PA 15238
Phone #: 412-826-5245
Fax #: 412-826-3433

State of Origin: NJ

WO# : 30341748

30341748

Preservatives
1 -Unpreserved 4-HCL
2- H2SO4 5-NaOH+Zn Ace.
3- HNO3

Sample ID	Sample Type: Water	Sample Type: Solid	Date	Time	# Bottles	Preservatives	Parameters Requested: 8260 VOCs	Remarks:
324770001 RW-703_CSIA_20191213	X		12/13/19	10:25	2	4	X	
240_CSIA_20191213	X		12/13/19	15:00	2	4	X	EDD**

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
J. Ward	PAES	12/18/2019	14/11		PACE	12-19-19	1030
	Company: PACE	Date: 12-11-19	Time: 1515	Received by:	Company:	Date: 12-19-19	Time: 15:15

Pace Analytical
www.pacelabs.com

32477

CHAIN-OF-CUSTODY / Analytical Request Doc

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed

WO# : 30341748

PM: DAP Due Date: 12/27/19

CLIENT: PAES_56_PIPA

Section A — Required Client Information:

Company:	Evergreen c/o Stantec
Address:	1060 Andrew Drive Suite 140
	West Chester, PA 19380
Email To:	andrew.klingbeil@stantec.com
Phone: 610-850-1420	Fax:
Requested Due Date/TAT:	Standard

Section B — Required Project Information:

Report To:	Andrew Klingbeil
Copy To:	Mark Cejas (Pace)
Purchase Order No.:	
Project Name:	PES Complex AOI 4 RI
Project Number:	213402602.6

Section C — Invoice Information:

Attention:	Andrew Klingbeil
Company Name:	Stantec
Address:	1060 Andrew Drive Suite 140
Pace Quote Reference:	
Pace Project Manager:	Ruth Welsh
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☑ OTHER DEP/EPA

Site Location STATE: PA

Section D — Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test ↓ Y/N	C3-C12 PIANO	C8-C40 FULL SCAN	CSIA ISOP,MCYP,CYH,1	CSIA BTEX,ISOP,MCYP,	CSIA BTEX, 124TMB	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
																		Requested Analysis Filtered (Y/N)	N	N	N	N			
1	S-240_BASE_GRAB_20191212	~~SL~~ WT	G			12/12	1340		2	X									X	X					
2	S-279_BASE_GRAB_20191212	WT	G			12/12	1730		2	X									X	X					
3	RW-703_BASE_GRAB_20191213	WT	G			12/13	0840		2	X										X					
4	RW-703-CSIA_20191213	WT	G			12/13	1025		6				X								X				
5	S-279_BASE_GRAB_20191213	WT	G			12/13	1250		4	X			X						X	X					
6	~~S-279_CSIA_20191213~~	WT	G			~~12/13~~																			
7	S-240_BASE_GRAB_20191213	WT	G			12/13	1500		4	X			X						X	X					
8	S-240-CSIA_20191213	WT	G			12/13	1500		6				X								X				
9	S-376_BASE_GRAB_20191213	WT	G			12/13	1705		2	X										X					
10																									
11																									
12																									

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
SAVE EXTRA SAMPLE VOLUME FOR POSSIBLE FUTURE ANALYSIS IF POSSIBLE	Stantec	12/17/19	1315		12/17	13:16				
SEE TEST REQUEST SHEET FROM ANDREW KLINGBEIL FOR CSIA DETAILS		12/17	16:30	Ross PACE	12.18	1150	1	Y	N	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Doulton Campbell

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Cooler Receipt Form

30341748

Client Name: Evergreen Project: PES Complex AOI 4 RI Lab Work Order: 32477

A. **Shipping/Container Information** (circle appropriate response)

Courier: (FedEx) UPS USPS Client Other:_____ Air bill Present: (Yes) No

Tracking Number: 7790 3234 5540/5550

Custody Seal on Cooler/Box Present: Yes (No) Seals Intact: Yes No

Cooler/Box Packing Material: Bubble Wrap Absorbent (Foam) Other:_____

Type of Ice: (Wet) Blue None Ice Intact: (Yes) Melted

Cooler Temperature: 10C Radiation Screened: Yes (No) Chain of Custody Present: (Yes) No

Comments:_____

B. **Laboratory Assignment/Log-in** (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC	✓			
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC Sample name/date and time collected	✓			
Sufficient volume provided	✓			
PAES containers used	✓			
Are containers properly preserved for the requested testing? (as labeled)	✓			
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	
Headspace present?			✓	

Comments:_____

Cooler contents examined/received by: LO Date: 12.18.19

Project Manager Review: JW Date: 12.18.19

F-PAE-Q-009-rev.01, 3Oct2017

Pittsburgh Lab Sample Condition Upon Receipt

Pace Analytical

Client Name: PACS

Project # # 30341748

Label
LIMS Login

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other _____

Tracking #: NA

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☑ no

Thermometer Used 10 Type of Ice: Wet Blue None

Cooler Temperature Observed Temp 2.4 °C Correction Factor: 0 °C Final Temp: 2.4 °C

Temp should be above freezing to 6°C

pH paper Lot# NA

Date and Initials of person examining contents: 12/19/19

Comments:	Yes	No	N/A	
Chain of Custody Present:	✓			1.
Chain of Custody Filled Out:	✓			2.
Chain of Custody Relinquished:	✓			3.
Sampler Name & Signature on COC:		✓		4.
Sample Labels match COC:	✓			5.
-Includes date/time/ID Matrix: NA				
Samples Arrived within Hold Time:	✓			6.
Short Hold Time Analysis (<72hr remaining):		✓		7.
Rush Turn Around Time Requested:		✓		8.
Sufficient Volume:	✓			9.
Correct Containers Used:	✓			10.
-Pace Containers Used:	✓			
Containers Intact:	✓			11.
Orthophosphate field filtered			✓	12.
Hex Cr Aqueous sample field filtered			✓	13.
Organic Samples checked for dechlorination:			✓	14.
Filtered volume received for Dissolved tests			✓	15.
All containers have been checked for preservation. exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix	✓			16.
All containers meet method preservation requirements.	✓			Initial when completed: JB Date/time of preservation:
				Lot # of added preservative:
Headspace in VOA Vials (>6mm):		✓		17.
Trip Blank Present:		✓		18.
Trip Blank Custody Seals Present			✓	
Rad Samples Screened < 0.5 mrem/hr			✓	Initial when completed: JB Date: 12/19/19

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

☐ **A check in this box indicates that additional information has been stored in ereports.**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

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SITE LOGIC Report

QuantArray®-Petro Study

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Report Date: 07/13/2020

Project: PHL: Penrose Drilling Sampling, 213402602
Comments:

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The QuantArray®-Petro Approach

Comprehensive evaluation of biodegradation potential at petroleum impacted sites is inherently problematic due to two factors:

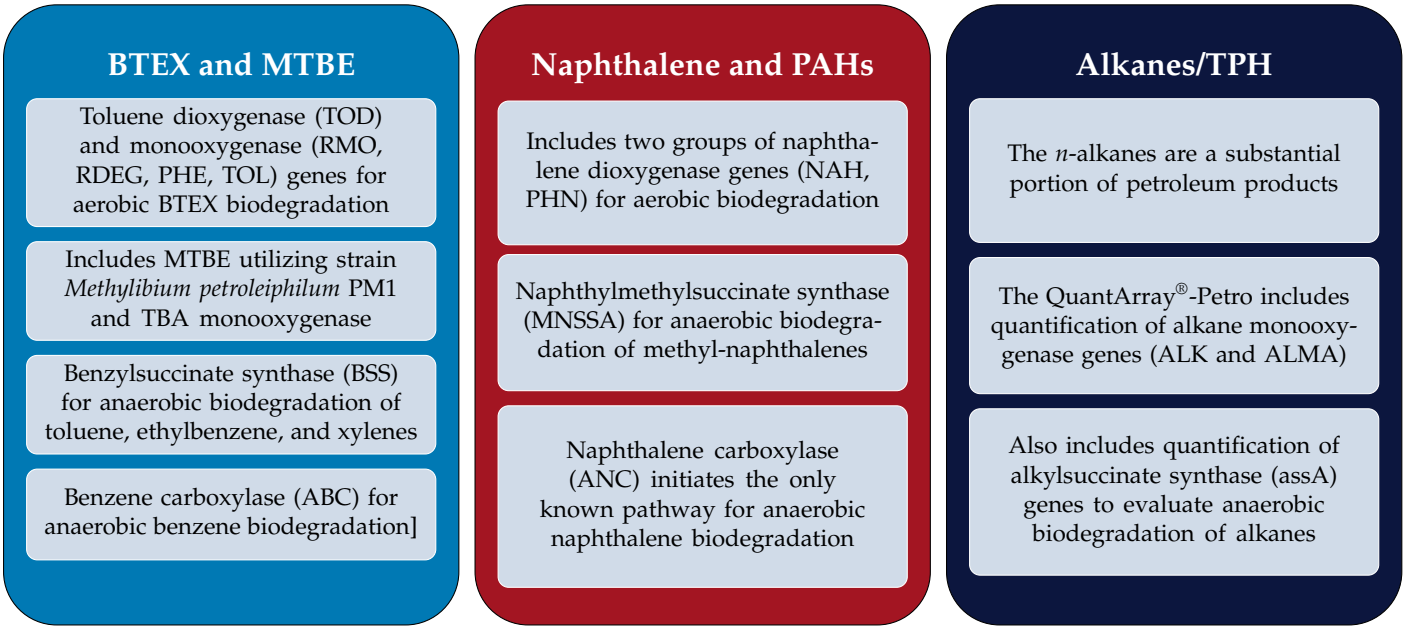
(1) Petroleum products are complex mixtures of hundreds of aliphatic, aromatic, cyclic, and heterocyclic compounds.

(2) Even for common classes of contaminants like benzene, toluene, ethylbenzene, and xylenes (BTEX), biodegradation can proceed by a multitude of pathways.

The QuantArray®-Petro has been designed to address both of these issues by providing the simultaneous quantification of the specific functional genes responsible for both aerobic and anaerobic biodegradation of BTEX, PAHs, and a variety of short and long chain alkanes.

Thus, when combined with chemical and geochemical groundwater monitoring programs, the QuantArray®-Petro allows site managers to simultaneously yet economically evaluate the potential for biodegradation of a spectrum of petroleum hydrocarbons through a multitude of aerobic and anaerobic pathways to give a much clearer and comprehensive view of contaminant biodegradation.

The QuantArray®-Petro is used to quantify specific microorganisms and functional genes to evaluate aerobic and anaerobic biodegradation of the following classes of compounds present in petroleum products:



How do QuantArrays® work?

The QuantArray®-Petro in many respects is a hybrid technology combining the highly parallel detection of microarrays with the accurate and precise quantification provided by qPCR into a single platform. The key to highly parallel qPCR reactions is the nanoliter fluidics platform for low volume, solution phase qPCR reactions.

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How are QuantArray® results reported?

One of the primary advantages of the QuantArray®-Petro is the simultaneous quantification of a broad spectrum of different microorganisms and key functional genes involved in a variety of pathways for hydrocarbon biodegradation. However, highly parallel quantification combined with various metabolic and cometabolic capabilities of different target organisms can complicate data presentation. Therefore, in addition to Summary Tables, QuantArray®-Petro results will be presented as Microbial Population Summary and Comparison Figures to aid in the data interpretation and subsequent evaluation of site management activities.

Types of Tables and Figures:

Microbial Population Summary	Figure presenting the concentrations of QuantArray®-Petro target gene concentrations (e.g. toluene dioxygenase) relative to typically observed values.
Summary Tables	Tables of target population concentrations grouped by biodegradation pathway and contaminant type.
Comparison Figures	Depending on the project, sample results can be presented to compare changes over time or examine differences in microbial populations along a transect of the dissolved plume.

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Results

Table 1: Summary of the QuantArray®-Petro results obtained for sample CD-10-38-20200623.

Sample Name	CD-10-38-20200623
Sample Date	06/23/2020
Aerobic BTEX and MTBE	cells/mL
Toluene/Benzene Dioxygenase (TOD)	<2.00E+01
Phenol Hydroxylase (PHE)	**4.58E+02**
Toluene 2 Monooxygenase/Phenol Hydroxylase (RDEG)	**5.05E+01**
Toluene Ring Hydroxylating Monooxygenases (RMO)	<2.00E+01
Xylene/Toluene Monooxygenase (TOL)	<2.00E+01
Ethylbenzene/Isopropylbenzene Dioxygenase (EDO)	<2.00E+01
Biphenyl/Isopropylbenzene Dioxygenase (BPH4)	<2.00E+01
Methylibium petroleiphilum PM1 (PM1)	<2.00E+01
TBA Monooxygenase (TBA)	<2.00E+01
Aerobic PAHs and Alkanes	
Naphthalene Dioxygenase (NAH)	<2.00E+01
Naphthalene-inducible Dioxygenase (NidA)	<2.00E+01
Phenanthrene Dioxygenase (PHN)	<2.00E+01
Alkane Monooxygenase (ALK)	<2.00E+01
Alkane Monooxygenase (ALMA)	<2.00E+01
Anaerobic BTEX	
Benzoyl Coenzyme A Reductase (BCR)	**1.45E+02**
Benzylsuccinate Synthase (BSS)	**1.67E+01 (J)**
Benzene Carboxylase (ABC)	<2.00E+01
Anaerobic PAHs and Alkanes	
Naphthylmethylsuccinate Synthase (MNSSA)	<2.00E+01
Naphthalene Carboxylase (ANC)	<2.00E+01
Alkylsuccinate Synthase (ASSA)	<2.00E+01
Other	
Total Eubacteria (EBAC)	**1.33E+06**
Sulfate Reducing Bacteria (APS)	**9.64E+02**

Legend:

NA = Not Analyzed
NS = Not Sampled
J = Estimated Gene Copies Below PQL but Above LQL
I = Inhibited
< = Result Not Detected

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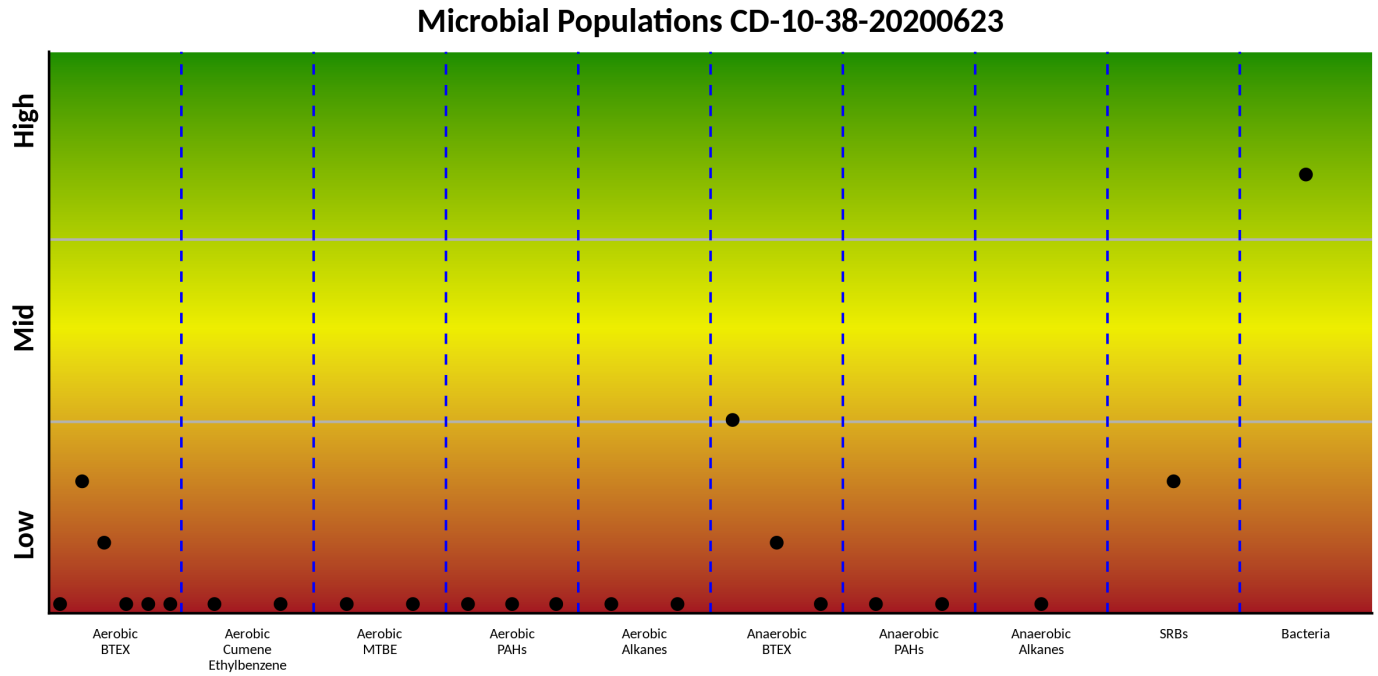

Figure 1: Microbial population summary to aid in evaluating potential pathways and biodegradation of specific contaminants.

Aerobic		Anaerobic	
BTEX	TOD, PHE, RDEG, RMO, TOL, EDO	BTEX	BCR, BSS, ABC
Cumene, Ethylbenzene	EDO, BPH4	Naphthalene/Methylnaphthalene	MNSSA, ANC
MTBE/TBA	PM1, TBA	Alkanes	assA
Naphthalene	NAH, NidA		
Phenanthrene	PHN		
Alkanes	ALK, ALMA		

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Table 2: Summary of the QuantArray®-Petro results for microorganisms responsible for aerobic biodegradation of BTEX and MTBE for samples CD-10-38-20200623.

Sample Name	CD-10-38-20200623
Sample Date	06/23/2020
Aerobic BTEX and MTBE	cells/mL
Toluene/Benzene Dioxygenase (TOD)	<2.00E+01
Phenol Hydroxylase (PHE)	**4.58E+02**
Toluene 2 Monooxygenase/Phenol Hydroxylase (RDEG)	**5.05E+01**
Toluene Ring Hydroxylating Monooxygenases (RMO)	<2.00E+01
Xylene/Toluene Monooxygenase (TOL)	<2.00E+01
Ethylbenzene/Isopropylbenzene Dioxygenase (EDO)	<2.00E+01
Biphenyl/Isopropylbenzene Dioxygenase (BPH4)	<2.00E+01
Methylibium petroleiphilum PM1 (PM1)	<2.00E+01
TBA Monooxygenase (TBA)	<2.00E+01

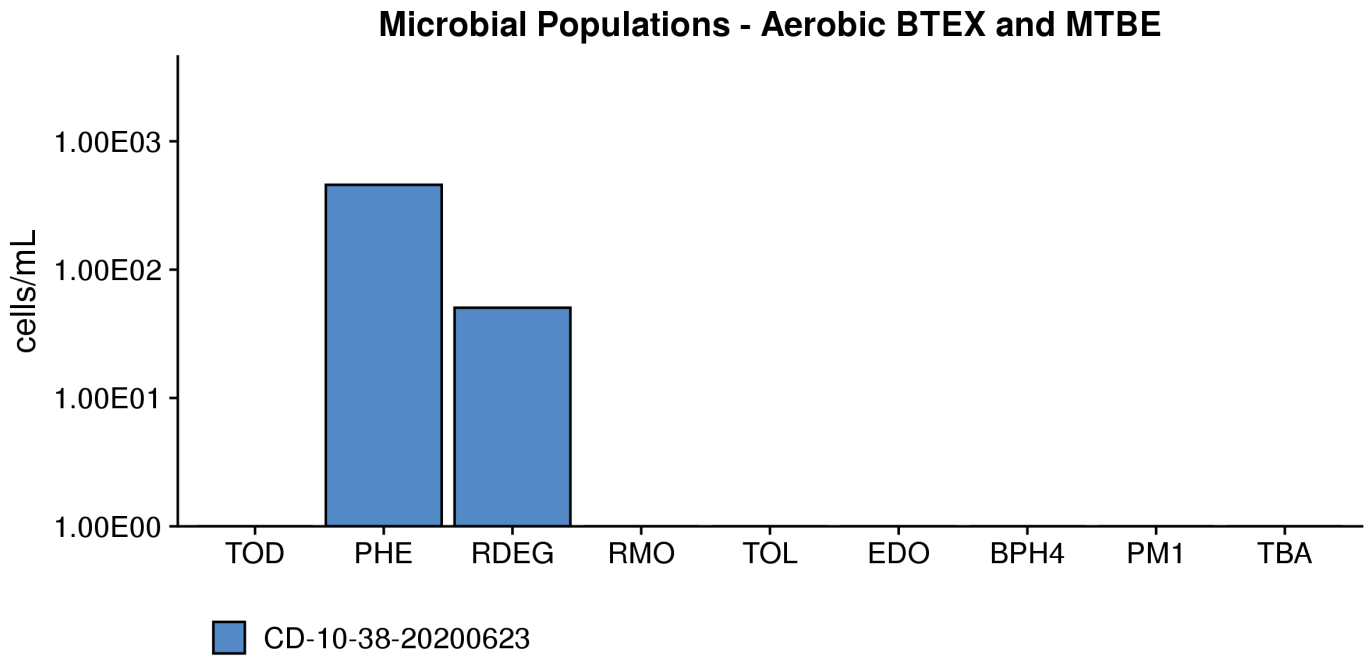

Figure 2: Comparison - microbial populations involved in aerobic biodegradation of BTEX and MTBE.

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Table 3: Summary of the QuantArray®-Petro results for microorganisms responsible for aerobic biodegradation of PAHs and alkanes for samples CD-10-38-20200623.

Sample Name	CD-10-38-20200623
Sample Date	06/23/2020
Aerobic PAHs and Alkanes	cells/mL
Naphthalene Dioxygenase (NAH)	<2.00E+01
Naphthalene-inducible Dioxygenase (NidA)	<2.00E+01
Phenanthrene Dioxygenase (PHN)	<2.00E+01
Alkane Monooxygenase (ALK)	<2.00E+01
Alkane Monooxygenase (ALMA)	<2.00E+01

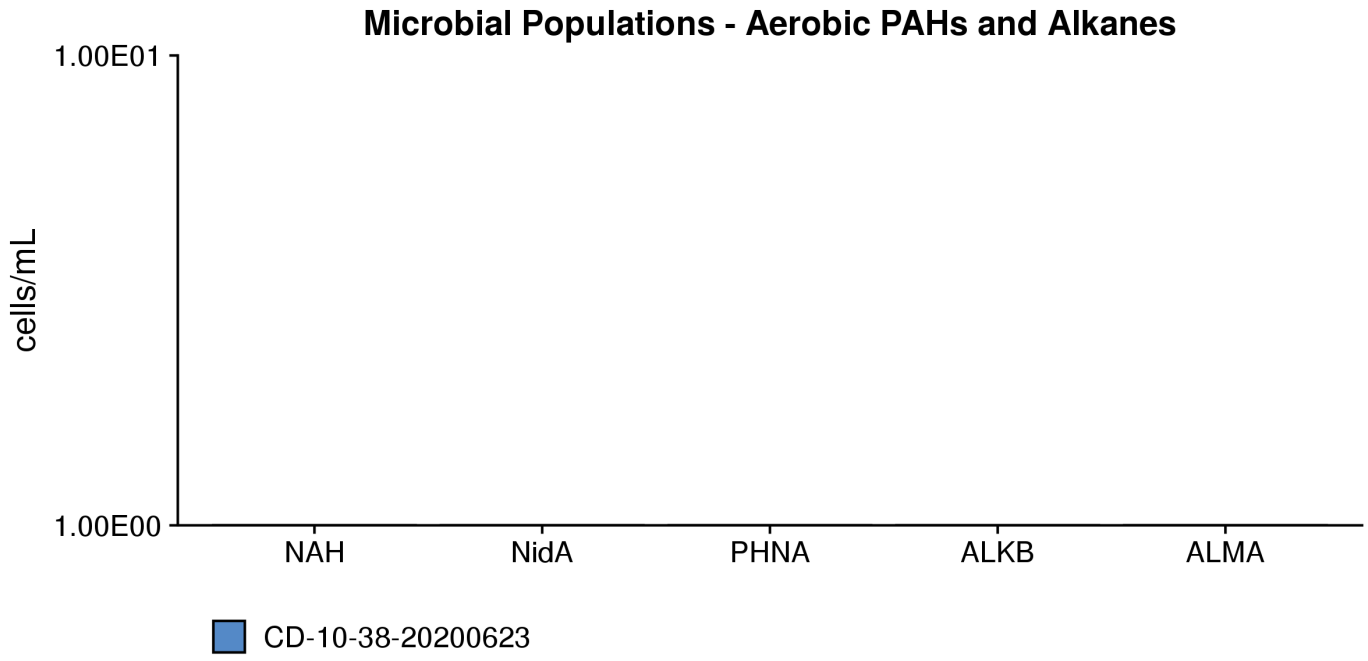

Figure 3: Comparison - microbial populations involved in aerobic biodegradation of PAHs and alkanes.

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Table 4: Summary of the QuantArray®-Petro results for microorganisms responsible for anaerobic biodegradation of BTEX, PAHs and alkanes for samples CD-10-38-20200623.

Sample Name	CD-10-38-20200623
Sample Date	06/23/2020
Anaerobic BTEX	cells/mL
Benzoyl Coenzyme A Reductase (BCR)	**1.45E+02**
Benzylsuccinate Synthase (BSS)	**1.67E+01 (J)**
Benzene Carboxylase (ABC)	<2.00E+01
Anaerobic PAHs and Alkanes	
Naphthylmethylsuccinate Synthase (MNSSA)	<2.00E+01
Naphthalene Carboxylase (ANC)	<2.00E+01
Alkylsuccinate Synthase (ASS)	<2.00E+01

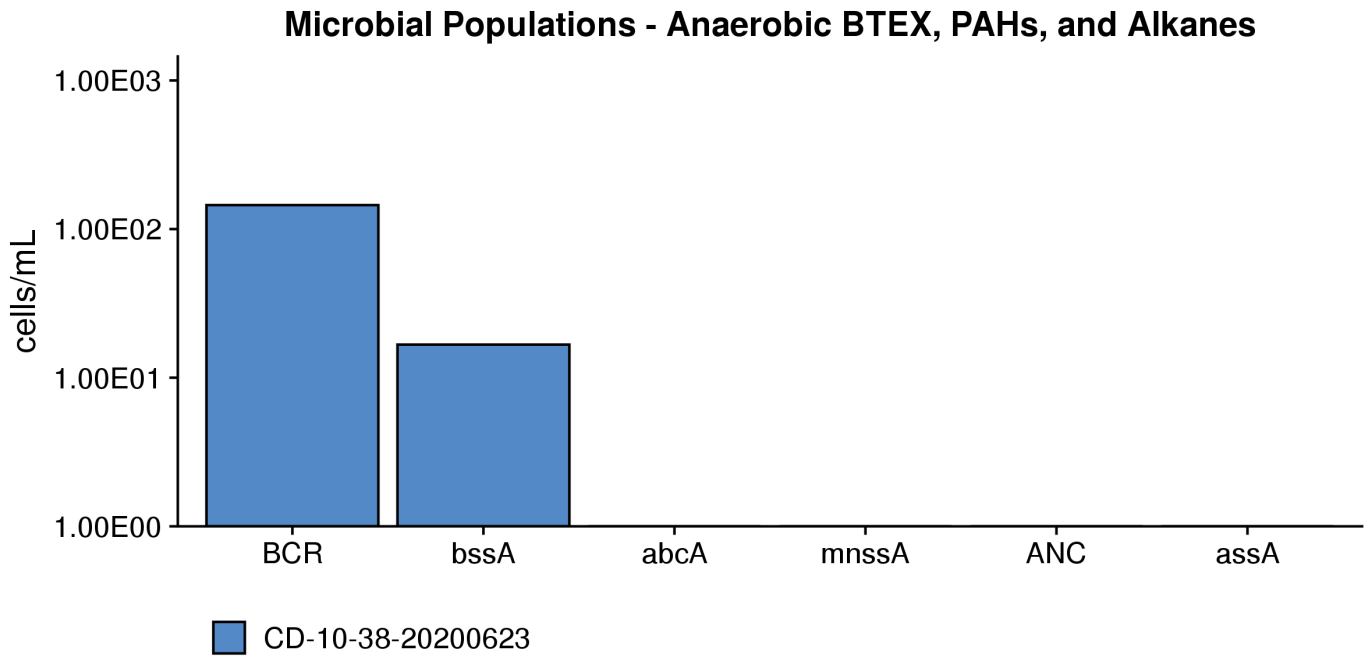

Figure 4: Comparison - microbial populations involved in anaerobic biodegradation of BTEX, PAHs and alkanes.

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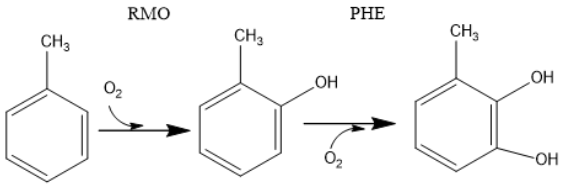
Interpretation

The overall purpose of the QuantArray®-Petro is to give site managers the ability to simultaneously yet economically evaluate the potential for biodegradation of a spectrum of contaminants found in petroleum products through a multitude of aerobic and anaerobic pathways to give a much more clear and comprehensive view of contaminant biodegradation. The following discussion describes interpretation of results in general terms and is meant to serve as a guide.

Aerobic Biodegradation - Benzene Toluene, Ethylbenzene, and Xylenes (BTEX): At sites impacted by petroleum products, aromatic hydrocarbons including BTEX are often contaminants of concern. Aerobic biodegradation of aromatic hydrocarbons has been intensively studied and multiple catabolic pathways have been well characterized. The substrate specificity of each pathway (range of compounds biodegraded via each pathway) is largely determined by the specificity of the initial oxygenase enzyme. The QuantArray®-Petro includes a suite of assays targeting the initial oxygenase genes of the known pathways for aerobic BTEX biodegradation.

Toluene/Benzene Dioxygenase (TOD): Toluene/benzene dioxygenase (TOD) incorporates both atoms of molecular oxygen into the aromatic ring. Although commonly called toluene dioxygenase, the substrate specificity of this enzyme is relaxed, allowing growth on toluene and benzene along with co-oxidation of a variety of compounds including ethylbenzene, *o*-xylene, *m*-xylene, and trichloroethene (TCE) when expressed.

Toluene/Benzene Monooxygenases (RMO/RDEG) and Phenol Hydroxylases (PHE): The next three known pathways for aerobic biodegradation of toluene (as well as benzene and xylenes) involve two steps: (1) an initial oxidation mediated by a toluene monooxygenase and (2) a second oxidation step catalyzed by a phenol hydroxylase. In these pathways, the toluene monooxygenases have been referred to as "ring hydroxylating monooxygenases" because they initiate biodegradation of toluene by incorporating oxygen directly into the aromatic ring rather than at a methyl group. The ring hydroxylating monooxygenases (RMOs) can be further described as toluene-2-monooxygenases, toluene-3-monooxygenases, or toluene-4-monooxygenases based upon where they attack the aromatic ring.



In General, phenol hydroxylases (PHE) catalyze the continued oxidation of phenols produced by RMOs. However, the difference between toluene monooxygenases (RMOs) and phenol hydroxylases (PHEs) is not absolute in terms of substrate specificity and catabolic function. For example, the TbmD toluene/benzene-2-monooxygenase [1] may be responsible for both the initial and second oxidation step [2].

The RMO, RDEG, and PHE assays target groups of genes encoding enzymes which perform the critical first and/or second steps in the aerobic biodegradation of BTEX compounds. In general terms, the RMO assay quantifies families of toluene-3-monooxygenase and toluene-4-monooxygenase genes. The RDEG assay is used to quantify groups of toluene-2-monooxygenase and phenol hydroxylase genes. Similarly, the PHE assay targets phenol hydroxylase genes and several benzene monooxygenase genes which catalyze both oxidation steps.

Toluene/Xylene Monooxygenase (TOL): The final known pathway for aerobic toluene biodegradation involves initial monooxygenase attack at the methyl group by a toluene/xylene monooxygenase.

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Ethylbenzene Dioxygenase (EDO): Similar to TOD, this group of aromatic oxygenases exhibits relatively broad specificity and is responsible for aerobic biodegradation of alkylbenzenes including ethylbenzene and isopropylbenzene or cumene [3].

Biphenyl Dioxygenase (BPH4): In environmental restoration, biphenyl dioxygenases are best known for cometabolism of polychlorinated biphenyls (PCBs). However, this subfamily includes benzene [4] and isopropylbenzene [5] dioxygenases from *Rhodococcus* spp.

Aerobic Biodegradation - MTBE and TBA: With increased use in the 1990s, the fuel oxygenate methyl *tert*-butyl ether (MTBE) has become one of the most commonly detected groundwater contaminants at gasoline contaminated sites. Pure cultures capable of utilizing MTBE as a growth supporting substrate have been isolated [6] and aerobic biodegradation of MTBE and the intermediate *tert*-butyl alcohol (TBA) has been reasonably well characterized. The QuantArray®-Petro includes quantification of two gene targets to assess the potential for aerobic biodegradation of MTBE and TBA.

Methylibium petroleiphilum PM1 (PM1): One of the few organisms isolated to date which is capable of utilizing MTBE and TBA as growth supporting substrates [6].

TBA Monooxygenase (TBA): Targets the TBA monooxygenase gene responsible for oxidation of TBA by *Methylibium petroleiphilum* PM1 [7].

Aerobic Biodegradation - Naphthalene and Other PAHs:

Naphthalene Dioxygenase (NAH): Naphthalene dioxygenase incorporates both atoms of molecular oxygen into naphthalene to initiate aerobic metabolism of the compound. However, the broad substrate specificity of naphthalene dioxygenase has been widely noted. When expressed, naphthalene dioxygenase is capable of catalyzing the oxidation of larger PAHs like anthracene, phenanthrene, acenaphthylene, fluorene, and acenaphthene. For a more comprehensive list of reactions mediated by naphthalene dioxygenases, see the University of Minnesota Biocatalysis/Biodegradation Database. (http://eawag-bbd.ethz.ch/naph/ndo.html, [8]).

Phenanthrene Dioxygenases (PHN): The PHN assays quantify phenanthrene/naphthalene dioxygenase genes from a diverse collection of microorganisms including *Pseudomonas*, *Burkholderia*, *Sphingomonas*, and *Acidovorax* spp. As with other naphthalene dioxygenases, substrate specificity is relatively broad and phenanthrene dioxygenases have been implicated in the biodegradation of naphthalene, phenanthrene, and anthracene and the co-oxidation of larger PAHs. Moreover, at least one research group has suggested that the PHN group of phenanthrene/naphthalene dioxygenases may be more environmentally relevant than the classical *nah*-like naphthalene dioxygenase [9].

Aerobic Biodegradation - *n*-alkanes: The *n*-alkanes are a substantial portion of petroleum products and are a component of TPH concentrations. The QuantArray®-Petro also includes quantification of alkane monooxygenase genes (ALK) which allow a wide range of *Proteobacteria* and *Actinomycetals* to grow on *n*-alkanes with carbon lengths from C_5 to C_{16} [10]. The QuantArray®-Petro also includes a second type of alkane hydroxylase (almA) which catalyzes the aerobic biodegradation of longer chain alkanes (C_{20}-C_{32}) by some *Alcanivorax* spp. considered dominant in marine systems [11].

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Anaerobic Biodegradation - Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX): BTEX compounds are also susceptible to biodegradation under anoxic and anaerobic conditions although biodegradation pathways for each compound are not as well characterized as aerobic pathways. The QuantArray®-Petro includes sets of assays targeting a number of upper and lower pathway functional genes involved in the anaerobic catabolism of BTEX compounds for better evaluation of anaerobic biodegradation at petroleum contaminated sites.

Benzylsuccinate Synthase (BSS): Of the BTEX compounds, toluene biodegradation under anaerobic conditions is the most extensively studied and best characterized. The first step in this pathway, mediated by benzylsuccinate synthase (*bss*A) is the addition of fumarate onto the toluene methyl group to form benzylsuccinate. While additional pathways are possible, some bacterial isolates capable of anaerobic biodegradation of ethylbenzene and xylenes follow the same metabolic approach where the first step is the addition of fumarate.

Anaerobic Benzene Carboxylase (ABC): Although additional pathways are possible, the only pathway for anaerobic biodegradation of benzene elucidated to date is initiated by a benzene carboxylase enzyme.

Benzoyl Coenzyme A Reductase (BCR): Benzoyl-CoA is the central intermediate in the anaerobic biodegradation of many aromatic hydrocarbons. Benzoyl-CoA Reductase (BCR) is the essential enzyme for reducing the benzene ring structure.

Anaerobic Biodegradation - PAHs: The anaerobic biodegradation of PAHs involves analogous mechanisms to those described for anaerobic biodegradation of BTEX compounds. For example, the anaerobic biodegradation of methyl-substituted PAHs like 2-methylnaphthalene is initiated by fumarate addition to the methyl group while the only characterized pathway for anaerobic naphthalene biodegradation is initiated by a carboxylase.

Naphthylmethylsuccinate Synthase (MNSSA): MNSSA is analogous to the benzylsuccinate synthase described above for anaerobic biodegradation of toluene. Naphthylmethylsuccinate synthase catalyzes the addition of fumarate onto the methyl group of 2-methylnaphthalene [12].

Anaerobic Naphthalene Carboxylase (ANC): To date, the only pathway that has been characterized for anaerobic biodegradation of naphthalene is initiated by a naphthalene carboxylase enzyme [13].

Anaerobic Biodegradation - *n*-alkanes: As mentioned previously, the *n*-alkanes are a substantial portion of petroleum products and should be considered particularly when site cleanup goals include TPH reduction. The addition of fumarate is a common mechanism for activating and initiating biodegradation of a variety of petroleum hydrocarbons under anaerobic conditions including *n*-alkanes. The QuantArray®-Petro includes quantification of alkyl succinate synthase genes (assA) which have been characterized in nitrate reducing and sulfate reducing isolates utilizing *n*-alkanes from C_6 to at least C_{18} [14].

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References

1. Johnson, G. R. & Olsen, R. H. Nucleotide sequence analysis of genes encoding a toluene/benzene-2-monooxygenase from *Pseudomonas* sp. strain JS150. *Applied and environmental microbiology* **61,** 3336–3346 (1995).
2. Kahng, H.-Y., Malinverni, J. C., Majko, M. M. & Kukor, J. J. Genetic and functional analysis of the *tbc* operons for catabolism of alkyl-and chloroaromatic compounds in *Burkholderia* sp. strain JS150. *Applied and environmental microbiology* **67,** 4805–4816 (2001).
3. Pflugmacher, U., Averhoff, B. & Gottschalk, G. Cloning, sequencing, and expression of isopropylbenzene degradation genes from *Pseudomonas* sp. strain JR1: identification of isopropylbenzene dioxygenase that mediates trichloroethene oxidation. *Applied and environmental microbiology* **62,** 3967–3977 (1996).
4. Na, K.-s. *et al.* Isolation and characterization of benzene-tolerant *Rhodococcus opacus* strains. *Journal of bioscience and bioengineering* **99,** 378–382 (2005).
5. Dabrock, B., Kesseler, M., Averhoff, B. & Gottschalk, G. Identification and characterization of a transmissible linear plasmid from *Rhodococcus erythropolis* BD2 that encodes isopropylbenzene and trichloroethene catabolism. *Applied and environmental microbiology* **60,** 853–860 (1994).
6. Hanson, J. R., Ackerman, C. E. & Scow, K. M. Biodegradation of methyl tert-butyl ether by a bacterial pure culture. *Applied and Environmental Microbiology* **65,** 4788–4792 (1999).
7. Hristova, K. R. *et al.* Comparative transcriptome analysis of *Methylibium petroleiphilum* PM1 exposed to the fuel oxygenates methyl *tert*-butyl ether and ethanol. *Applied and environmental microbiology* **73,** 7347–7357 (2007).
8. Schmidt, M. *University of Minnesota biocatalysis biodegradation database* 1996.
9. Laurie, A. D. & Lloyd-Jones, G. Quantification of *phnAc* and *nahAc* in contaminated New Zealand soils by competitive PCR. *Applied and environmental microbiology* **66,** 1814–1817 (2000).
10. Wentzel, A., Ellingsen, T. E., Kotlar, H.-K., Zotchev, S. B. & Throne-Holst, M. Bacterial metabolism of long-chain *n*-alkanes. *Applied microbiology and biotechnology* **76,** 1209–1221 (2007).
11. Liu, C. *et al.* Multiple alkane hydroxylase systems in a marine alkane degrader, *Alcanivorax dieselolei* B-5. *Environmental microbiology* **13,** 1168–1178 (2011).
12. Selesi, D. *et al.* Combined genomic and proteomic approaches identify gene clusters involved in anaerobic 2-methylnaphthalene degradation in the sulfate-reducing enrichment culture N47. *Journal of bacteriology* **192,** 295–306 (2010).
13. Mouttaki, H., Johannes, J. & Meckenstock, R. U. Identification of naphthalene carboxylase as a prototype for the anaerobic activation of non-substituted aromatic hydrocarbons. *Environmental microbiology* **14,** 2770–2774 (2012).
14. Callaghan, A. V. *et al.* Diversity of benzyl-and alkylsuccinate synthase genes in hydrocarbon-impacted environments and enrichment cultures. *Environmental science & technology* **44,** 7287–7294 (2010).

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SITE LOGIC Report

QuantArray®-Petro Study

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MI Identifier: 093RG

Report Date: 09/01/2020

Project: PHL: Penrose Drilling Sampling, 213402602
Comments:

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The QuantArray®-Petro Approach

Comprehensive evaluation of biodegradation potential at petroleum impacted sites is inherently problematic due to two factors:

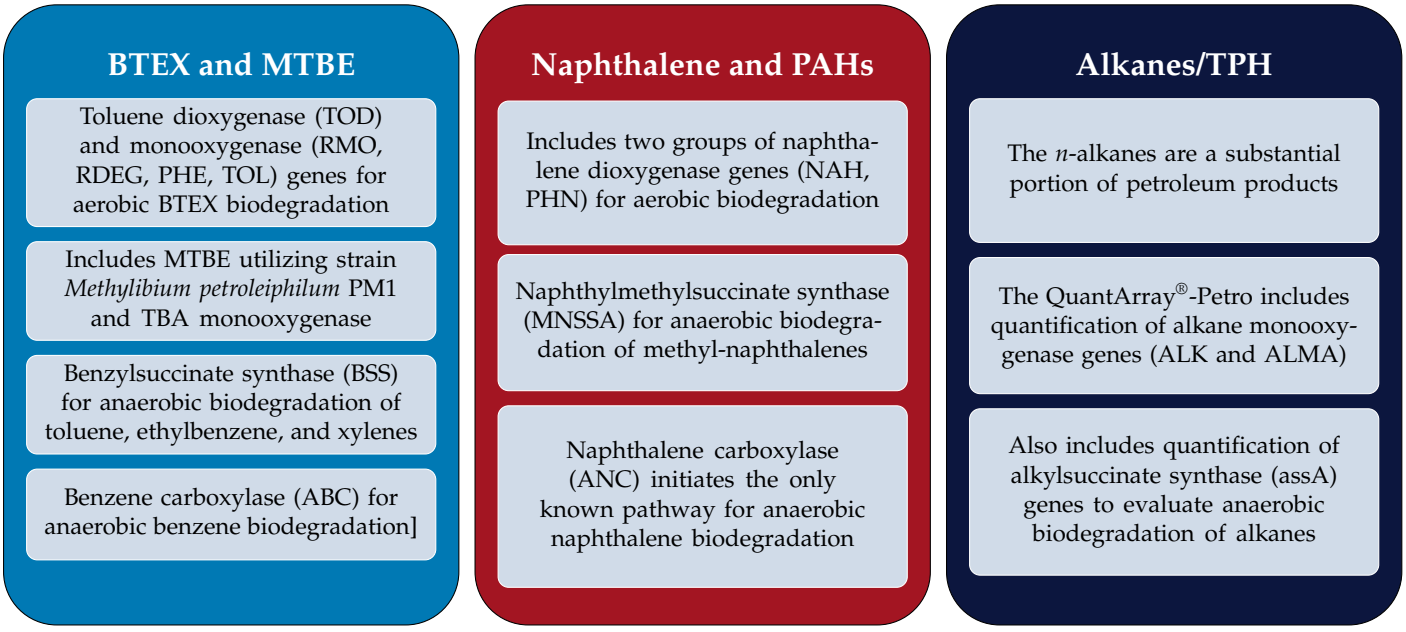
(1) Petroleum products are complex mixtures of hundreds of aliphatic, aromatic, cyclic, and heterocyclic compounds.

(2) Even for common classes of contaminants like benzene, toluene, ethylbenzene, and xylenes (BTEX), biodegradation can proceed by a multitude of pathways.

The QuantArray®-Petro has been designed to address both of these issues by providing the simultaneous quantification of the specific functional genes responsible for both aerobic and anaerobic biodegradation of BTEX, PAHs, and a variety of short and long chain alkanes.

Thus, when combined with chemical and geochemical groundwater monitoring programs, the QuantArray®-Petro allows site managers to simultaneously yet economically evaluate the potential for biodegradation of a spectrum of petroleum hydrocarbons through a multitude of aerobic and anaerobic pathways to give a much clearer and comprehensive view of contaminant biodegradation.

The QuantArray®-Petro is used to quantify specific microorganisms and functional genes to evaluate aerobic and anaerobic biodegradation of the following classes of compounds present in petroleum products:



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How are QuantArray® results reported?

One of the primary advantages of the QuantArray®-Petro is the simultaneous quantification of a broad spectrum of different microorganisms and key functional genes involved in a variety of pathways for hydrocarbon biodegradation. However, highly parallel quantification combined with various metabolic and cometabolic capabilities of different target organisms can complicate data presentation. Therefore, in addition to Summary Tables, QuantArray®-Petro results will be presented as Microbial Population Summary and Comparison Figures to aid in the data interpretation and subsequent evaluation of site management activities.

Types of Tables and Figures:

Microbial Population Summary	Figure presenting the concentrations of QuantArray®-Petro target gene concentrations (e.g. toluene dioxygenase) relative to typically observed values.
Summary Tables	Tables of target population concentrations grouped by biodegradation pathway and contaminant type.
Comparison Figures	Depending on the project, sample results can be presented to compare changes over time or examine differences in microbial populations along a transect of the dissolved plume.

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Results

Table 1: Summary of the QuantArray®-Petro results obtained for sample CD-14-23-20200811.

Sample Name	CD-14-23-20200811
Sample Date	08/11/2020
Aerobic BTEX and MTBE	cells/mL
Toluene/Benzene Dioxygenase (TOD)	**8.00E-01 (J)**
Phenol Hydroxylase (PHE)	<2.50E+00
Toluene 2 Monooxygenase/Phenol Hydroxylase (RDEG)	<2.50E+00
Toluene Ring Hydroxylating Monooxygenases (RMO)	<2.50E+00
Xylene/Toluene Monooxygenase (TOL)	<2.50E+00
Ethylbenzene/Isopropylbenzene Dioxygenase (EDO)	<2.50E+00
Biphenyl/Isopropylbenzene Dioxygenase (BPH4)	<2.50E+00
Methylibium petroleiphilum PM1 (PM1)	<2.50E+00
TBA Monooxygenase (TBA)	<2.50E+00
Aerobic PAHs and Alkanes	
Naphthalene Dioxygenase (NAH)	<2.50E+00
Naphthalene-inducible Dioxygenase (NidA)	<2.50E+00
Phenanthrene Dioxygenase (PHN)	**1.76E+01**
Alkane Monooxygenase (ALK)	**9.20E-02 (J)**
Alkane Monooxygenase (ALMA)	<2.50E+00
Anaerobic BTEX	
Benzoyl Coenzyme A Reductase (BCR)	<2.50E+00
Benzylsuccinate Synthase (BSS)	**1.84E+01**
Benzene Carboxylase (ABC)	<2.50E+00
Anaerobic PAHs and Alkanes	
Naphthylmethylsuccinate Synthase (MNSSA)	<2.50E+00
Naphthalene Carboxylase (ANC)	<2.50E+00
Alkylsuccinate Synthase (ASSA)	**5.00E-01 (J)**
Other	
Total Eubacteria (EBAC)	**1.61E+06**
Sulfate Reducing Bacteria (APS)	**6.37E+01**

Legend:

NA = Not Analyzed
NS = Not Sampled
J = Estimated Gene Copies Below PQL but Above LQL
I = Inhibited
< = Result Not Detected

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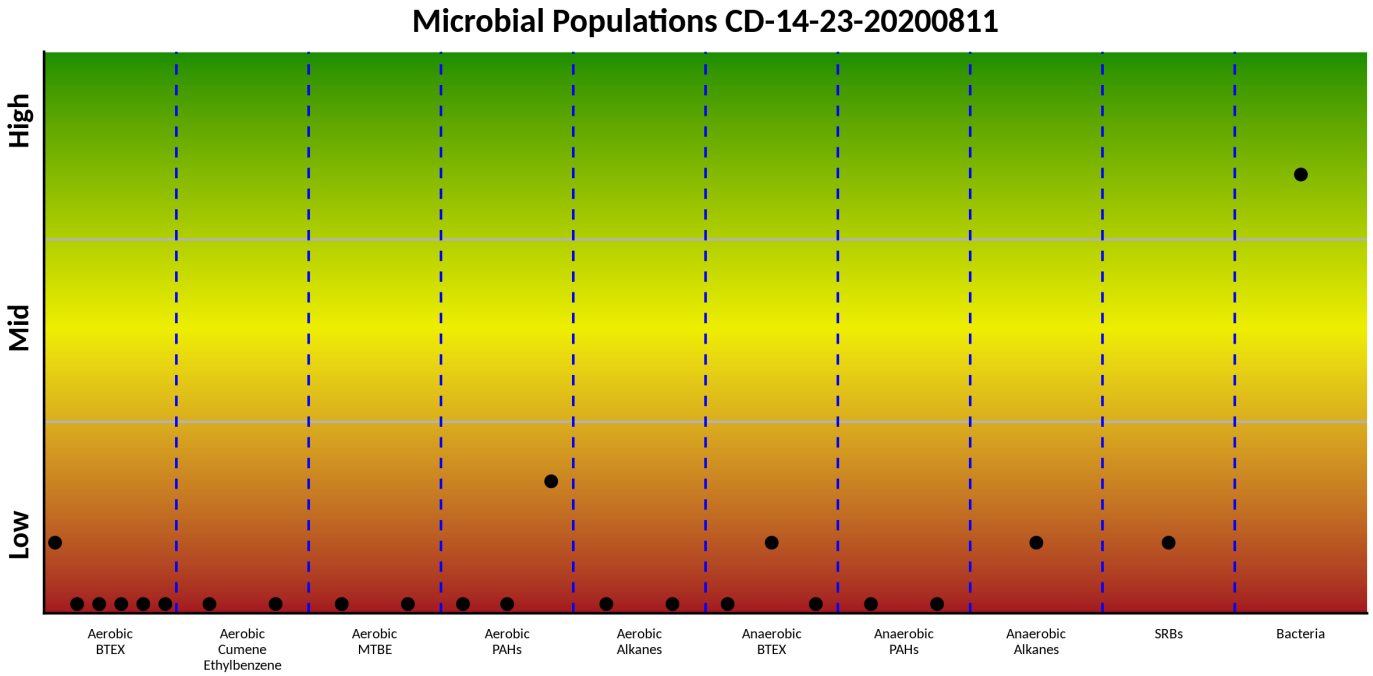

Figure 1: Microbial population summary to aid in evaluating potential pathways and biodegradation of specific contaminants.

Aerobic		Anaerobic	
BTEX	TOD, PHE, RDEG, RMO, TOL, EDO	BTEX	BCR, BSS, ABC
Cumene, Ethylbenzene	EDO, BPH4	Naphthalene/Methylnaphthalene	MNSSA, ANC
MTBE/TBA	PM1, TBA	Alkanes	assA
Naphthalene	NAH, NidA		
Phenanthrene	PHN		
Alkanes	ALK, ALMA		

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Table 2: Summary of the QuantArray®-Petro results for microorganisms responsible for aerobic biodegradation of BTEX and MTBE for samples CD-14-23-20200811.

Sample Name	CD-14-23-20200811
Sample Date	08/11/2020
Aerobic BTEX and MTBE	cells/mL
Toluene/Benzene Dioxygenase (TOD)	**8.00E-01 (J)**
Phenol Hydroxylase (PHE)	<2.50E+00
Toluene 2 Monooxygenase/Phenol Hydroxylase (RDEG)	<2.50E+00
Toluene Ring Hydroxylating Monooxygenases (RMO)	<2.50E+00
Xylene/Toluene Monooxygenase (TOL)	<2.50E+00
Ethylbenzene/Isopropylbenzene Dioxygenase (EDO)	<2.50E+00
Biphenyl/Isopropylbenzene Dioxygenase (BPH4)	<2.50E+00
Methylibium petroleiphilum PM1 (PM1)	<2.50E+00
TBA Monooxygenase (TBA)	<2.50E+00

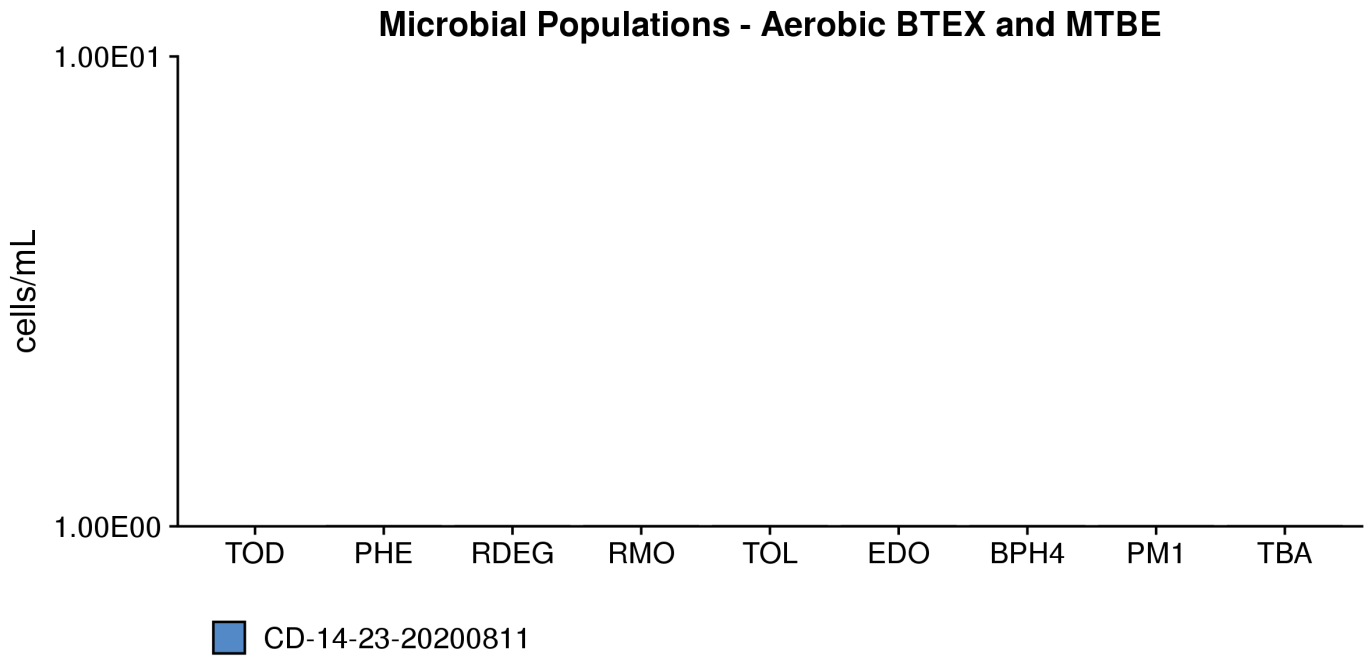

Figure 2: Comparison - microbial populations involved in aerobic biodegradation of BTEX and MTBE.

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Table 3: Summary of the QuantArray®-Petro results for microorganisms responsible for aerobic biodegradation of PAHs and alkanes for samples CD-14-23-20200811.

Sample Name	CD-14-23-20200811
Sample Date	08/11/2020
Aerobic PAHs and Alkanes	cells/mL
Naphthalene Dioxygenase (NAH)	<2.50E+00
Naphthalene-inducible Dioxygenase (NidA)	<2.50E+00
Phenanthrene Dioxygenase (PHN)	**1.76E+01**
Alkane Monooxygenase (ALK)	**9.20E-02 (J)**
Alkane Monooxygenase (ALMA)	<2.50E+00

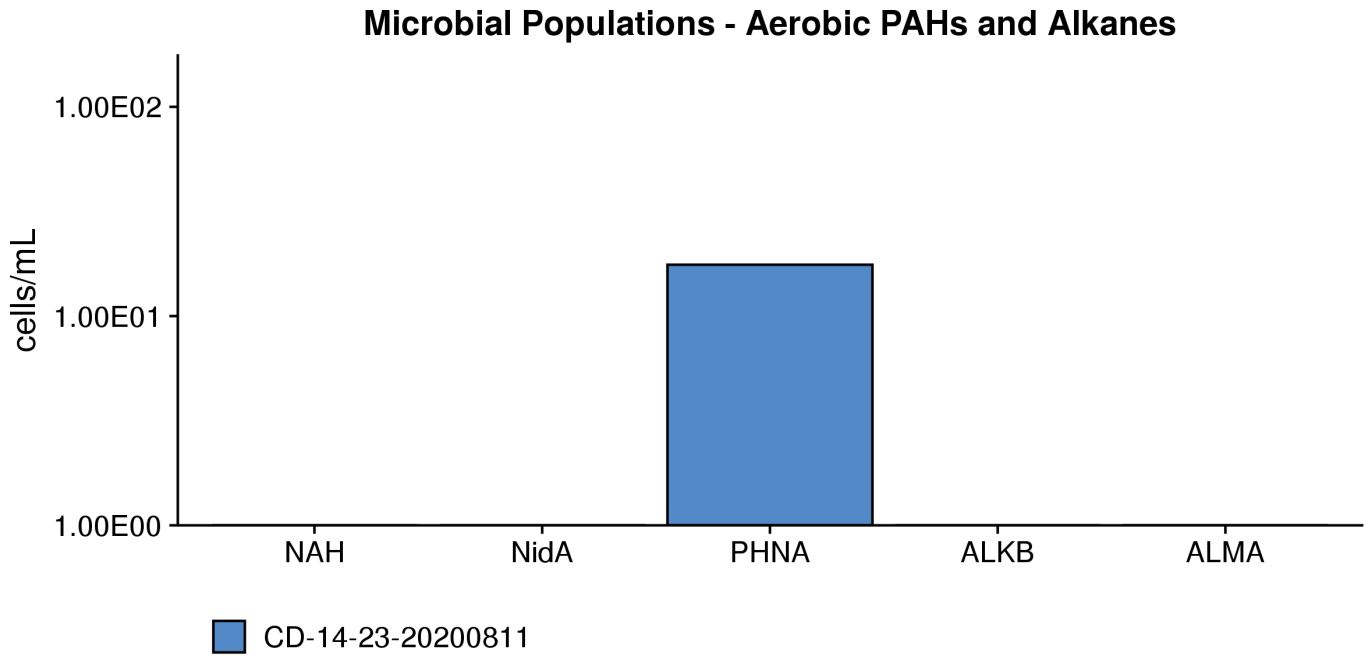

Figure 3: Comparison - microbial populations involved in aerobic biodegradation of PAHs and alkanes.

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Table 4: Summary of the QuantArray®-Petro results for microorganisms responsible for anaerobic biodegradation of BTEX, PAHs and alkanes for samples CD-14-23-20200811.

Sample Name	CD-14-23-20200811
Sample Date	08/11/2020
Anaerobic BTEX	cells/mL
Benzoyl Coenzyme A Reductase (BCR)	<2.50E+00
Benzylsuccinate Synthase (BSS)	**1.84E+01**
Benzene Carboxylase (ABC)	<2.50E+00
Anaerobic PAHs and Alkanes	
Naphthylmethylsuccinate Synthase (MNSSA)	<2.50E+00
Naphthalene Carboxylase (ANC)	<2.50E+00
Alkylsuccinate Synthase (ASS)	**5.00E-01 (J)**

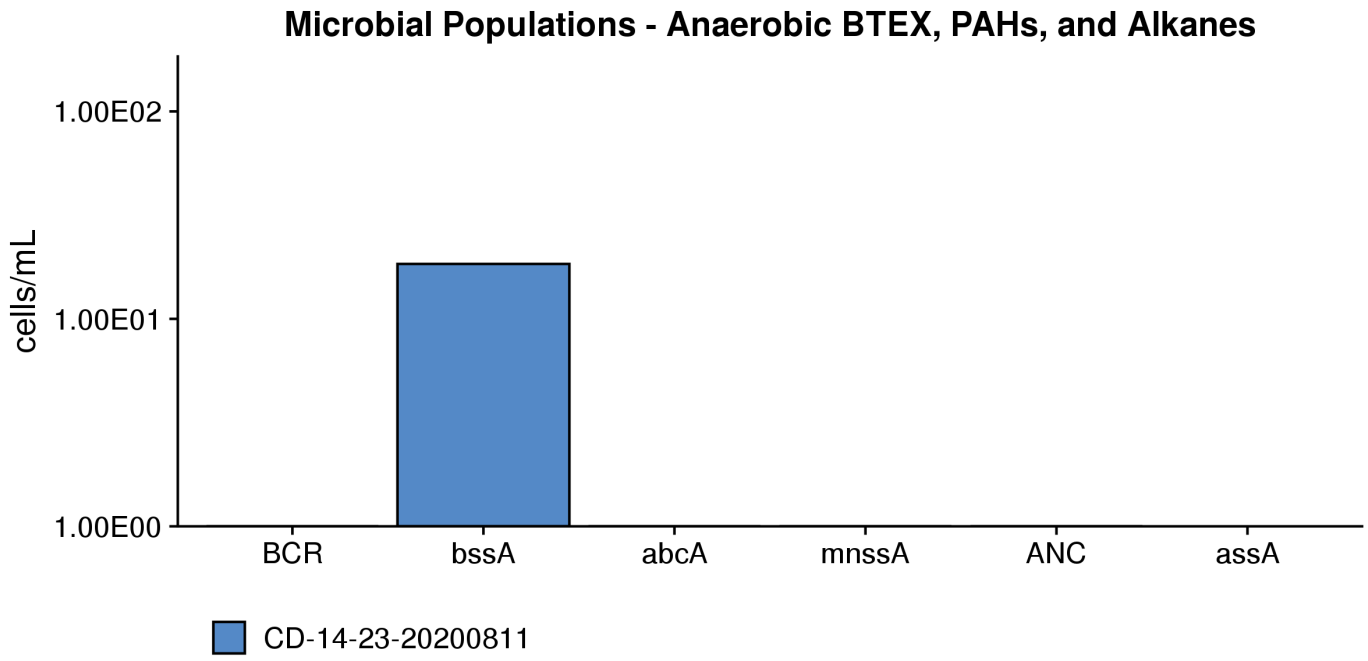

Figure 4: Comparison - microbial populations involved in anaerobic biodegradation of BTEX, PAHs and alkanes.

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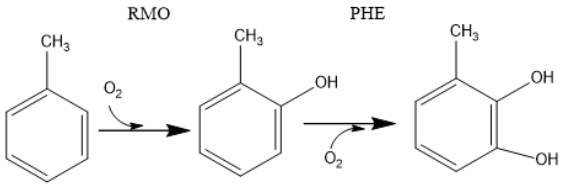
Interpretation

The overall purpose of the QuantArray®-Petro is to give site managers the ability to simultaneously yet economically evaluate the potential for biodegradation of a spectrum of contaminants found in petroleum products through a multitude of aerobic and anaerobic pathways to give a much more clear and comprehensive view of contaminant biodegradation. The following discussion describes interpretation of results in general terms and is meant to serve as a guide.

Aerobic Biodegradation - Benzene Toluene, Ethylbenzene, and Xylenes (BTEX): At sites impacted by petroleum products, aromatic hydrocarbons including BTEX are often contaminants of concern. Aerobic biodegradation of aromatic hydrocarbons has been intensively studied and multiple catabolic pathways have been well characterized. The substrate specificity of each pathway (range of compounds biodegraded via each pathway) is largely determined by the specificity of the initial oxygenase enzyme. The QuantArray®-Petro includes a suite of assays targeting the initial oxygenase genes of the known pathways for aerobic BTEX biodegradation.

Toluene/Benzene Dioxygenase (TOD): Toluene/benzene dioxygenase (TOD) incorporates both atoms of molecular oxygen into the aromatic ring. Although commonly called toluene dioxygenase, the substrate specificity of this enzyme is relaxed, allowing growth on toluene and benzene along with co-oxidation of a variety of compounds including ethylbenzene, *o*-xylene, *m*-xylene, and trichloroethene (TCE) when expressed.

Toluene/Benzene Monooxygenases (RMO/RDEG) and Phenol Hydroxylases (PHE): The next three known pathways for aerobic biodegradation of toluene (as well as benzene and xylenes) involve two steps: (1) an initial oxidation mediated by a toluene monooxygenase and (2) a second oxidation step catalyzed by a phenol hydroxylase. In these pathways, the toluene monooxygenases have been referred to as "ring hydroxylating monooxygenases" because they initiate biodegradation of toluene by incorporating oxygen directly into the aromatic ring rather than at a methyl group. The ring hydroxylating monooxygenases (RMOs) can be further described as toluene-2-monooxygenases, toluene-3-monooxygenases, or toluene-4-monooxygenases based upon where they attack the aromatic ring.



In General, phenol hydroxylases (PHE) catalyze the continued oxidation of phenols produced by RMOs. However, the difference between toluene monooxygenases (RMOs) and phenol hydroxylases (PHEs) is not absolute in terms of substrate specificity and catabolic function. For example, the TbmD toluene/benzene-2-monooxygenase [1] may be responsible for both the initial and second oxidation step [2].

The RMO, RDEG, and PHE assays target groups of genes encoding enzymes which perform the critical first and/or second steps in the aerobic biodegradation of BTEX compounds. In general terms, the RMO assay quantifies families of toluene-3-monooxygenase and toluene-4-monooxygenase genes. The RDEG assay is used to quantify groups of toluene-2-monooxygenase and phenol hydroxylase genes. Similarly, the PHE assay targets phenol hydroxylase genes and several benzene monooxygenase genes which catalyze both oxidation steps.

Toluene/Xylene Monooxygenase (TOL): The final known pathway for aerobic toluene biodegradation involves initial monooxygenase attack at the methyl group by a toluene/xylene monooxygenase.

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Ethylbenzene Dioxygenase (EDO): Similar to TOD, this group of aromatic oxygenases exhibits relatively broad specificity and is responsible for aerobic biodegradation of alkylbenzenes including ethylbenzene and isopropylbenzene or cumene [3].

Biphenyl Dioxygenase (BPH4): In environmental restoration, biphenyl dioxygenases are best known for cometabolism of polychlorinated biphenyls (PCBs). However, this subfamily includes benzene [4] and isopropylbenzene [5] dioxygenases from *Rhodococcus* spp.

Aerobic Biodegradation - MTBE and TBA: With increased use in the 1990s, the fuel oxygenate methyl *tert*-butyl ether (MTBE) has become one of the most commonly detected groundwater contaminants at gasoline contaminated sites. Pure cultures capable of utilizing MTBE as a growth supporting substrate have been isolated [6] and aerobic biodegradation of MTBE and the intermediate *tert*-butyl alcohol (TBA) has been reasonably well characterized. The QuantArray®-Petro includes quantification of two gene targets to assess the potential for aerobic biodegradation of MTBE and TBA.

Methylibium petroleiphilum PM1 (PM1): One of the few organisms isolated to date which is capable of utilizing MTBE and TBA as growth supporting substrates [6].

TBA Monooxygenase (TBA): Targets the TBA monooxygenase gene responsible for oxidation of TBA by *Methylibium petroleiphilum* PM1 [7].

Aerobic Biodegradation - Naphthalene and Other PAHs:

Naphthalene Dioxygenase (NAH): Naphthalene dioxygenase incorporates both atoms of molecular oxygen into naphthalene to initiate aerobic metabolism of the compound. However, the broad substrate specificity of naphthalene dioxygenase has been widely noted. When expressed, naphthalene dioxygenase is capable of catalyzing the oxidation of larger PAHs like anthracene, phenanthrene, acenaphthylene, fluorene, and acenaphthene. For a more comprehensive list of reactions mediated by naphthalene dioxygenases, see the University of Minnesota Biocatalysis/Biodegradation Database. (http://eawag-bbd.ethz.ch/naph/ndo.html, [8]).

Phenanthrene Dioxygenases (PHN): The PHN assays quantify phenanthrene/naphthalene dioxygenase genes from a diverse collection of microorganisms including *Pseudomonas*, *Burkholderia*, *Sphingomonas*, and *Acidovorax* spp. As with other naphthalene dioxygenases, substrate specificity is relatively broad and phenanthrene dioxygenases have been implicated in the biodegradation of naphthalene, phenanthrene, and anthracene and the co-oxidation of larger PAHs. Moreover, at least one research group has suggested that the PHN group of phenanthrene/naphthalene dioxygenases may be more environmentally relevant than the classical *nah*-like naphthalene dioxygenase [9].

Aerobic Biodegradation - *n*-alkanes: The *n*-alkanes are a substantial portion of petroleum products and are a component of TPH concentrations. The QuantArray®-Petro also includes quantification of alkane monooxygenase genes (ALK) which allow a wide range of *Proteobacteria* and *Actinomycetals* to grow on *n*-alkanes with carbon lengths from C_5 to C_{16} [10]. The QuantArray®-Petro also includes a second type of alkane hydroxylase (almA) which catalyzes the aerobic biodegradation of longer chain alkanes (C_{20}-C_{32}) by some *Alcanivorax* spp. considered dominant in marine systems [11].

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Anaerobic Biodegradation - Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX): BTEX compounds are also susceptible to biodegradation under anoxic and anaerobic conditions although biodegradation pathways for each compound are not as well characterized as aerobic pathways. The QuantArray®-Petro includes sets of assays targeting a number of upper and lower pathway functional genes involved in the anaerobic catabolism of BTEX compounds for better evaluation of anaerobic biodegradation at petroleum contaminated sites.

Benzylsuccinate Synthase (BSS): Of the BTEX compounds, toluene biodegradation under anaerobic conditions is the most extensively studied and best characterized. The first step in this pathway, mediated by benzylsuccinate synthase (*bss*A) is the addition of fumarate onto the toluene methyl group to form benzylsuccinate. While additional pathways are possible, some bacterial isolates capable of anaerobic biodegradation of ethylbenzene and xylenes follow the same metabolic approach where the first step is the addition of fumarate.

Anaerobic Benzene Carboxylase (ABC): Although additional pathways are possible, the only pathway for anaerobic biodegradation of benzene elucidated to date is initiated by a benzene carboxylase enzyme.

Benzoyl Coenzyme A Reductase (BCR): Benzoyl-CoA is the central intermediate in the anaerobic biodegradation of many aromatic hydrocarbons. Benzoyl-CoA Reductase (BCR) is the essential enzyme for reducing the benzene ring structure.

Anaerobic Biodegradation - PAHs: The anaerobic biodegradation of PAHs involves analogous mechanisms to those described for anaerobic biodegradation of BTEX compounds. For example, the anaerobic biodegradation of methyl-substituted PAHs like 2-methylnaphthalene is initiated by fumarate addition to the methyl group while the only characterized pathway for anaerobic naphthalene biodegradation is initiated by a carboxylase.

Naphthylmethylsuccinate Synthase (MNSSA): MNSSA is analogous to the benzylsuccinate synthase described above for anaerobic biodegradation of toluene. Naphthylmethylsuccinate synthase catalyzes the addition of fumarate onto the methyl group of 2-methylnaphthalene [12].

Anaerobic Naphthalene Carboxylase (ANC): To date, the only pathway that has been characterized for anaerobic biodegradation of naphthalene is initiated by a naphthalene carboxylase enzyme [13].

Anaerobic Biodegradation - *n*-alkanes: As mentioned previously, the *n*-alkanes are a substantial portion of petroleum products and should be considered particularly when site cleanup goals include TPH reduction. The addition of fumarate is a common mechanism for activating and initiating biodegradation of a variety of petroleum hydrocarbons under anaerobic conditions including *n*-alkanes. The QuantArray®-Petro includes quantification of alkyl succinate synthase genes (assA) which have been characterized in nitrate reducing and sulfate reducing isolates utilizing *n*-alkanes from C_6 to at least C_{18} [14].

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References

1. Johnson, G. R. & Olsen, R. H. Nucleotide sequence analysis of genes encoding a toluene/benzene-2-monooxygenase from *Pseudomonas* sp. strain JS150. *Applied and environmental microbiology* **61,** 3336–3346 (1995).
2. Kahng, H.-Y., Malinverni, J. C., Majko, M. M. & Kukor, J. J. Genetic and functional analysis of the *tbc* operons for catabolism of alkyl-and chloroaromatic compounds in *Burkholderia* sp. strain JS150. *Applied and environmental microbiology* **67,** 4805–4816 (2001).
3. Pflugmacher, U., Averhoff, B. & Gottschalk, G. Cloning, sequencing, and expression of isopropylbenzene degradation genes from *Pseudomonas* sp. strain JR1: identification of isopropylbenzene dioxygenase that mediates trichloroethene oxidation. *Applied and environmental microbiology* **62,** 3967–3977 (1996).
4. Na, K.-s. *et al.* Isolation and characterization of benzene-tolerant *Rhodococcus opacus* strains. *Journal of bioscience and bioengineering* **99,** 378–382 (2005).
5. Dabrock, B., Kesseler, M., Averhoff, B. & Gottschalk, G. Identification and characterization of a transmissible linear plasmid from *Rhodococcus erythropolis* BD2 that encodes isopropylbenzene and trichloroethene catabolism. *Applied and environmental microbiology* **60,** 853–860 (1994).
6. Hanson, J. R., Ackerman, C. E. & Scow, K. M. Biodegradation of methyl tert-butyl ether by a bacterial pure culture. *Applied and Environmental Microbiology* **65,** 4788–4792 (1999).
7. Hristova, K. R. *et al.* Comparative transcriptome analysis of *Methylibium petroleiphilum* PM1 exposed to the fuel oxygenates methyl *tert*-butyl ether and ethanol. *Applied and environmental microbiology* **73,** 7347–7357 (2007).
8. Schmidt, M. *University of Minnesota biocatalysis biodegradation database* 1996.
9. Laurie, A. D. & Lloyd-Jones, G. Quantification of *phnAc* and *nahAc* in contaminated New Zealand soils by competitive PCR. *Applied and environmental microbiology* **66,** 1814–1817 (2000).
10. Wentzel, A., Ellingsen, T. E., Kotlar, H.-K., Zotchev, S. B. & Throne-Holst, M. Bacterial metabolism of long-chain *n*-alkanes. *Applied microbiology and biotechnology* **76,** 1209–1221 (2007).
11. Liu, C. *et al.* Multiple alkane hydroxylase systems in a marine alkane degrader, *Alcanivorax dieselolei* B-5. *Environmental microbiology* **13,** 1168–1178 (2011).
12. Selesi, D. *et al.* Combined genomic and proteomic approaches identify gene clusters involved in anaerobic 2-methylnaphthalene degradation in the sulfate-reducing enrichment culture N47. *Journal of bacteriology* **192,** 295–306 (2010).
13. Mouttaki, H., Johannes, J. & Meckenstock, R. U. Identification of naphthalene carboxylase as a prototype for the anaerobic activation of non-substituted aromatic hydrocarbons. *Environmental microbiology* **14,** 2770–2774 (2012).
14. Callaghan, A. V. *et al.* Diversity of benzyl-and alkylsuccinate synthase genes in hydrocarbon-impacted environments and enrichment cultures. *Environmental science & technology* **44,** 7287–7294 (2010).

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ANSI National Accreditation Board ACCREDITED ISO/IEC 17025 TESTING LABORATORY

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Fax:

Identifier: 009RI **Date Rec:** 09/03/2020 **Report Date:** 09/04/2020

Client Project #: 213402602 **Client Project Name:** PHL: Penrose Drilling Sampling (GWS)

Purchase Order #:

Test results provided for: CENSUS

Reviewed By:



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Results relate only to the items tested and the sample(s) as received by the laboratory.

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CENSUS

Client: **Stantec Consulting**
Project: PHL: Penrose Drilling Sampling (GWS)

MI Project Number: **009RI**
Date Received: 09/03/2020

Sample Information

Client Sample ID:		**S-449_20200902**	**S-378_20200902**	**S-375_20200902**	**S-38_20200902**
Sample Date:		09/02/2020	09/02/2020	09/02/2020	09/02/2020
Units:		cells/mL	cells/mL	cells/mL	cells/mL
Analyst/Reviewer:		CB/HT	CB/HT	CB/HT	CB/HT
Phylogenetic Group					
Total Eubacteria	EBAC	**1.83E+03**	**8.29E+06**	**1.05E+07**	**1.78E+06**

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

Quality Assurance/Quality Control Data

Samples Received **9/3/2020**

Component	Date Prepared	Date Analyzed	Arrival Temperature	Positive Control	Extraction Blank	Negative Control
EBAC	09/03/2020	09/04/2020	1 °C	106%	non-detect	non-detect

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Fax:

Identifier: 091RF **Date Rec:** 06/24/2020 **Report Date:** 07/13/2020

Client Project #: 213402602 **Client Project Name:** PHL: Penrose Drilling Sampling

Purchase Order #:

Analysis Requested: CENSUS, QuantArray

Reviewed By:



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CENSUS

Client: **Stantec Consulting**
Project: PHL: Penrose Drilling Sampling

MI Project Number: **091RF**
Date Received: 06/24/2020

Sample Information

Client Sample ID:	**CD-13B-40-2020 0707**
Sample Date:	07/07/2020
Units:	cells/mL
Analyst/Reviewer:	HT

Phylogenetic Group

Total Eubacteria	EBAC	**6.20E+02**

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

Quality Assurance/Quality Control Data

Samples Received **7/8/2020**

Component	Date Prepared	Date Analyzed	Arrival Temperature	Positive Control	Extraction Blank	Negative Control
EBAC	07/08/2020	07/13/2020	0 °C	99%	non-detect	non-detect

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Fax:

Identifier: 091RF **Date Rec:** 06/24/2020 **Report Date:** 07/02/2020

Client Project #: 213402602 **Client Project Name:** PHL: Penrose Drilling Sampling

Purchase Order #:

Analysis Requested: CENSUS, QuantArray

Reviewed By:



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CENSUS

Client: **Stantec Consulting**
Project: PHL: Penrose Drilling Sampling

MI Project Number: **091RF**
Date Received: 06/24/2020

Sample Information

Client Sample ID:	**CD-6B-45-20200630**
Sample Date:	06/30/2020
Units:	cells/mL
Analyst/Reviewer:	HT

Phylogenetic Group

Total Eubacteria	EBAC	**2.88E+05**

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

Quality Assurance/Quality Control Data

Samples Received **7/1/2020**

Component	Date Prepared	Date Analyzed	Arrival Temperature	Positive Control	Extraction Blank	Negative Control
EBAC	07/01/2020	07/02/2020	0 °C	106%	non-detect	non-detect

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Fax:

Identifier: 091RF **Date Rec:** 06/24/2020 **Report Date:** 06/25/2020

Client Project #: 213402602 **Client Project Name:** PHL: Penrose Drilling Sampling

Purchase Order #:

Analysis Requested: CENSUS

Reviewed By:



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MICROBIAL INSIGHTS, INC.

10515 Research Dr., Knoxville, TN 37932
Tel. (865) 573-8188 Fax. (865) 573-8133

CENSUS

Client: **Stantec Consulting**
Project: PHL: Penrose Drilling Sampling

MI Project Number: **091RF**
Date Received: 06/24/2020

Sample Information

Client Sample ID:	**CD-10-38-20200623**
Sample Date:	06/23/2020
Units:	cells/mL
Analyst/Reviewer:	HT

Phylogenetic Group

Total Eubacteria	EBAC	**1.33E+06**

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

Quality Assurance/Quality Control Data

Samples Received **6/24/2020**

Component	Date Prepared	Date Analyzed	Arrival Temperature	Positive Control	Extraction Blank	Negative Control
EBAC	06/24/2020	06/25/2020	3 °C	107%	non-detect	non-detect

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Phone: (865) 573-8188
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Client: Andrew Klingbeil
Stantec Consulting
1060 Andrew Drive
Suite 140
West Chester, PA 19380

Phone:

Fax:

Identifier: 093RG **Date Rec:** 07/24/2020 **Report Date:** 07/28/2020

Client Project #: 213402602 **Client Project Name:** PHL: Penrose Drilling Sampling

Purchase Order #:

Analysis Requested: CENSUS

Reviewed By:



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Results relate only to the items tested and the sample(s) as received by the laboratory.

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CENSUS

Client: **Stantec Consulting**
Project: PHL: Penrose Drilling Sampling

MI Project Number: **093RG**
Date Received: 07/24/2020

Sample Information

Client Sample ID:	**CD-6A-44-20200723**
Sample Date:	07/23/2020
Units:	cells/mL
Analyst/Reviewer:	HT/PEHU2-DR

Phylogenetic Group

Total Eubacteria	EBAC	**6.97E+04**

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

Quality Assurance/Quality Control Data

Samples Received **7/24/2020**

Component	Date Prepared	Date Analyzed	Arrival Temperature	Positive Control	Extraction Blank	Negative Control
EBAC	07/24/2020	07/28/2020	1 °C	103%	non-detect	non-detect

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Client: Andrew Klingbeil
Stantec Consulting
1060 Andrew Drive
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West Chester, PA 19380

Phone:

Fax:

Identifier: 093RG **Date Rec:** 07/24/2020 **Report Date:** 08/14/2020

Client Project #: 213402602 **Client Project Name:** PHL: Penrose Drilling Sampling

Purchase Order #:

Analysis Requested: CENSUS

Reviewed By:



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CENSUS

Client: **Stantec Consulting**
Project: PHL: Penrose Drilling Sampling

MI Project Number: **093RG**
Date Received: 07/24/2020

Sample Information

Client Sample ID:		**CD-6A-44-20200723**	**CD-3-25-20200728**	**CD-14-23-20200811**
Sample Date:		07/23/2020	07/28/2020	08/11/2020
Units:		cells/mL	cells/mL	cells/mL
Analyst/Reviewer:		HT/HT	HT/HT	HT/HT
Phylogenetic Group				
Total Eubacteria	EBAC	**6.97E+04**	**1.19E+05**	**1.61E+06**

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

Quality Assurance/Quality Control Data

Samples Received **7/24/2020**

Component	Date Prepared	Date Analyzed	Arrival Temperature	Positive Control	Extraction Blank	Negative Control
EBAC	07/24/2020	07/28/2020	1 °C	103%	non-detect	non-detect

Samples Received **7/29/2020**

Component	Date Prepared	Date Analyzed	Arrival Temperature	Positive Control	Extraction Blank	Negative Control
EBAC	07/29/2020	07/31/2020	2 °C	104%	non-detect	non-detect

Samples Received **8/12/2020**

Component	Date Prepared	Date Analyzed	Arrival Temperature	Positive Control	Extraction Blank	Negative Control
EBAC	08/12/2020	08/14/2020	0 °C	109%	non-detect	non-detect