Evergreen Resources Management
2 Righter Parkway, Suite 200
Wilmington, DE 19803

January 30, 2017

Mr. David Brown, P.G.
Pennsylvania Department of Environmental Protection
2 East Main Street
Norristown, Pennsylvania 19401

RE: Philadelphia Refinery Remediation Program
Groundwater Remediation Status Report, Second Half 2016

Dear Mr. Brown:

Enclosed for your review is the second half 2016 semi-annual summary report for Operation & Maintenance (O&M) work completed at the Philadelphia Energy Solutions Refining & Marketing, LLC (PES) Philadelphia Refining Complex (Complex) and the Sunoco Partners Marketing and Terminals L.P. (SPMT) Belmont Terminal between July 1, 2016 and December 31, 2016. Detailed information regarding O&M activity is included in the attached tables for the Philadelphia Refining Complex as prepared by Stantec Consulting Services Inc. (Stantec). This letter summarizes the information detailed in the tables plus additional activities under the "Work Plan for Site Wide Approach under the One Cleanup Program" (Site Wide Approach) such as investigations of the various Areas of Interest (AOIs).

In compliance with the 2003 Consent Order and Agreement (CO&A) entered into between Sunoco Inc., (R&M) (Sunoco) and the Pennsylvania Department of Environmental Protection (PADEP) for the PES Complex located at 3144 Passyunk Avenue in Philadelphia, Pennsylvania, Sunoco has completed site characterization activities for all 11 AOIs. The Complex has since been entered into the Pennsylvania One Cleanup Program. On November 30, 2011, Sunoco submitted a Site Wide Approach to the PADEP and the United States Environmental Protection Agency (USEPA). The Site Wide Approach clarifies the technical approach beyond the CO&A and provides an anticipated schedule for future Act 2 submissions with respect to the Philadelphia Refining Complex remediation program. Effective December 30, 2013, Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC (Evergreen) assumed Sunoco legacy remediation liabilities with respect to the PES Complex. All remediation of Sunoco's/Atlantic's historic environmental liabilities at the PES Complex and Belmont Terminal will be managed moving forward by Evergreen. Status and anticipated dates of forthcoming Remedial Investigation Report (RIR) submittals will be updated in the semi-annual Groundwater Remediation Status Reports. This particular status report will include an updated schedule for submittals under Act 2 within each AOI section.

Evergreen will continue to submit the required documentation and implement the required remedial obligations. Moving forward, Evergreen will submit a report with the O&M summary, Act 2 submittal updates, figures, and tables on an annual basis coinciding with the annual groundwater gauging and monitoring. On the alternating six month interval, Evergreen will submit an abbreviated letter report detailing the O&M summary with limited tables and without figures.

AOI 1 – Belmont Terminal / No. 1 Tank Farm / No. 2 Tank Farm

Consent Order / Characterization Status

Sunoco submitted to the PADEP and the USEPA a Site Characterization Report (SCR) for AOI 1 dated June 30, 2005. Based on comments received by the PADEP with regard to the AOI 1 SCR, Sunoco prepared and submitted to the PADEP a revised SCR for AOI 1 dated July 17, 2006. The recommendations in the AOI 1 report were to supplement the existing remediation system along the northwestern portion of the Belmont Terminal and southeastern portion of the No. 2 Tank Farm. Sunoco has implemented these actions as detailed in previous quarterly reports. In addition, Sunoco provided the PADEP a Remedial Action Plan (RAP) for AOI 1 in January 2008. As a result of the 26th Street North recovery system study and the S-50 Area (26th Street South) investigation, an addendum to the RAP was considered necessary. In December 2008, a RAP Addendum for AOI 1 was submitted to address the 26th Street North recovery system data analysis and the 26th Street South investigation and subsequent remedial actions. Evergreen submitted a revised RIR for AOI 1 on August 5, 2016 which was approved by the PADEP on November 1, 2016. Evergreen is addressing comments to the RIR in a response that is due by January 31, 2017.

Belmont Terminal – Operation During the Second Half of 2016

On August 30, 2012, the Frontage Road system was turned off and will remain offline unless there are significant increases in light non-aqueous phase liquid (LNAPL) in the recovery wells. The recovery wells were gauged on August 29, 2016 and November 29, 2016, and no LNAPL was detected.

The Loading Rack system consists of six dual-phase pumping systems (RW-4, RW-21, RW-22, RW-23, RW-24, and RW-25). Each recovery well contains separate pumps controlled by density floats and conductivity probes to pump groundwater and LNAPL. Recovered groundwater is discharged to an onsite process sewer. LNAPL thicknesses are checked weekly, and pumps are turned on/off as needed based on recoverable product LNAPL accumulations in each recovery well. The recovered LNAPL is stored in a 5,000-gallon holding tank, the contents of which are recycled by the refinery on an as needed basis.

The Belmont Terminal system was operational during the reporting period with the following exceptions:

- From August 19 through September 29, RW-23 and RW-24 were inoperable. Flow for this period was inadequate to accurately record flow. System issues were caused by a malfunctioning programmable logic controller (PLC) which was removed for repairs. On September 29, a new PLC was installed and RW-23 and RW-24 were returned to service.
- RW-4 was inoperable from August 8 through September 23. A new product pump was installed in RW-4 on September 23 and RW-4 was operational.
- On November 3, the product pump was removed from RW-4 for repairs. On November 11, RW-4 was returned to service.
- On October 6, RW-4 was turned off pending repairs to a level sensor and returned to service on November 11.

A total of 1,760,079 gallons of groundwater and 229 gallons of LNAPL was recovered by this system during the second half of 2016. System performance data for the Loading Rack System can be found in **Appendix 1**.

Shunk Street Sewer Ventilation System and Biofilter – Operation During the Second Half of 2016

The biofilter was operational for the reporting period. Details of the Shunk Street Sewer Ventilation System and Biofilter operational status during the second half of 2016 can be found in **Appendix 1**.

26th Street Sewer Area – System Performance and Operation During the Second Half of 2016

26th Street North:

Sunoco has conducted a performance assessment of the 26th Street North recovery system to better determine the effectiveness of remediation in this area. In general reporting of groundwater and LNAPL recovery provides limited indication of system performance, and should be supplemented with measurements related to maintaining water-table drawdown and inducing a hydraulic gradient towards collection points. It was concluded in the AOI 1 RAP Addendum that the extent of LNAPL has not changed significantly. A review of apparent LNAPL thickness data through time suggests that as a whole, LNAPL plumes at AOI 1 are not migrating, in general, because the vertical thickness of LNAPL as observed in AOI 1 monitoring wells has not been increasing. However in the 26th Street area near offsite well S-100 and No. 1 Tank Farm well S-277, increasing trends in apparent LNAPL thickness have recently been observed indicating that some portion of LNAPL in this general area may be migrating.

The 26th Street Sewer Area system was modified in 2015 to increase the overall effectiveness of the system. All of the four-inch diameter recovery wells (S-180, S-181, S-182, S-183, S-184, S-185, S-186, S-187, S-188, S-189, S-190, S-191, and S-192) were replaced with six-inch diameter recovery wells. Additionally, RW-400 and RW-402 are connected to the system for a total of fifteen recovery wells.

Within each well, a QED Environmental Systems Model AP-4+T AutoPump was installed to recover groundwater and LNAPL. Each recovery well contains a two-inch diameter lateral discharge line that connects to a four-inch high density polyethylene (HDPE) trunk line, which transfers the total fluids to an onsite process sewer. The pumps utilize compressed air, which is supplied by a Kaeser rotary screw air compressor. A one-inch diameter air line runs to each recovery well and is reduced to a 3/8-inch diameter line in each well vault at the pneumatic pumps.

The 26th Street Sewer Area system was restarted on October 12, 2015. The system was operational for the reporting period with the following exceptions:

- On July 8 the system was down due to compressor overheating.
- On July 12, the S-186 pump was removed for cleaning.
- On July 27, S-186 was reinstalled and the air compressor was repaired.
- On August 9, S-188 was not operational.
- On August 18, the system was not operational due to low oil level in the air compressor.
- On August 24, S-189 and S-190 were not operational.
- On September 21, S-189 and S-191 were not operational.
- From September 30 through October 21, RW-400 was not operational due to repairs pending replacement parts.
- On October 5, S-186 and S-187 were not operational.
- From October 5 through October 7, S-192 was not operational.
- On November 2, S-186 and S-187 were not operational.
- On November 9, the pumps were removed, cleaned, and reinstalled.
- On November 17, RW-400 was not operational; the pump was removed for cleaning and reinstalled.
- On December 13, RW-400 was not operational; the pump was removed for cleaning and reinstalled.
- On December 20, S-189 was not operational.

A total of 6,870,427 gallons of total fluids was recovered by this system during the second half of 2016. Details for the 26th Street Sewer Area system performance data can be found in **Appendix 1**.

26th Street South:

A comprehensive groundwater investigation was conducted in the S-50 area. This data and proposed remedial action was included in the AOI 1 RAP Addendum. To minimize the migration of soluble phase contaminants, a biologically active aerobic barrier utilizing oxygen injection was recommended for the area. A thirty-point oxygen injection system was installed in 2009.

Due to the presence of LNAPL within the capture zone, the 26th Street South oxygen injection system was shut off on August 22, 2014. The system remained off for the second half of 2016. The conceptualization of a recovery system will be evaluated in the Cleanup Plan.

26th Street and Packer Avenue Sewers Biofilter System – Operation During the Second Half of 2016

The 26th Street and Packer Avenue Sewers Biofilter system was taken offline on September 16, 2015 for upgrades. Upgrades to the biofilter included replacing the compost beds, repairing the duct work, and replacing or repairing the fans. The system was restarted on June 6, 2016 for final stages of startup. System startup was completed on November 10, 2016 and the system was operational for the remainder of the second half of 2016 with the following exceptions:

- On July 19, the belts were replaced on blower #1. The belts were replaced and the system was returned to service.
- On September 14, the belts were replaced on blower #1. The belts were replaced and the system was returned to service.

Details for the 26th Street and Packer Avenue Sewer Biofilter system performance data can be found in **Appendix 1**.

AOI 2 – Point Breeze Processing Area

Consent Order / Characterization Status

The AOI 2 SCR/RIR was submitted to the PADEP and the USEPA on September 29, 2010. A revised RIR will be completed in 2017.

Pollock Street West End System – Operation During the Second Half of 2016

During October 2011, heavier than usual quantities of oil were observed within the Pollock Street sewer outfall. As a result, Sunoco completed the expansion of the existing vertical recovery well remediation system in the vicinity of the Pollock Street sewer outfall in February 2012. The system, referred to as the Pollock Street West End system, consists of a total of ten 4-inch diameter recovery wells on the east side of River Road and twenty 6-inch diameter recovery wells on the west side of River Road. Product thicknesses are checked bi-weekly, and pumps are turned on/off as needed based on recoverable product accumulations in each well. Groundwater and LNAPL are removed from select recovery wells using pneumatic submersible pumps. All liquids are processed through an oil/water separator. Water is discharged to a refinery process sewer (S-10 Sump), and LNAPL is recovered in a series of two 550-gallon tanks and then recycled by the complex. A report describing the details of the investigation and remediation performed in response to the oil observed in the Pollock Street sewer outfall was submitted to the PADEP and the USEPA on June 29, 2012.

The Pollock Street West End system was operational during the reporting period with the following exceptions:

- From July 5 through July 18, RW-119 and S-315 were not operational.
- On July 18, the flow meter was not operational. The flow meter was removed for repair and reinstalled. Pumps RW-119 and S-315 were reinstalled.
- On August 30, all wells except RW-119 and RW-120 were shut off.
- On September 2, the system was shut off to evaluate LNAPL recharge.
- On September 26, the system was restarted.
- On October 4, RW-124 was not operational.
- On November 14, RW-119 was not operational; the pump was removed and replaced.
- On December 2 and December 5, RW-119 was not operational.
- On December 12, the system was not operational due to a high oil water separator alarm.
- On December 19, the system was shut off to observe LNAPL recharge in the wells and remained off for the remainder of the period.

A total of 1,124,600 gallons of groundwater and 11.2 gallons of LNAPL was recovered by the Pollock Street West End system during the second half of 2016. Operational and performance data can be found in **Appendix 1**.

Pollock Street Vertical Well System – Operation During the Second Half of 2016

The Pollock Street Vertical Well system originally consisted of RW-101, RW-102, and RW-103. All other vertical wells were previously turned off or incorporated into the Pollock Street West End system. On April 4, 2013 the vertical recovery wells were turned off for main discharge line cleaning and the installation of a new pump at horizontal well HW-1. Subsequently, HW-1 maintained adequate drawdown; therefore, the Pollock Street Vertical Well system was no longer needed. The recovery equipment was removed from RW-101, RW-102, and RW-103 on August 2, 2013.

Pollock Street Horizontal Well System – Operation During the Second Half of 2016

The Pollock Street Horizontal Well system consists of HW-1, HW-2, and HW-3. HW-1 was installed in July 2004 along the north side of the Pollock Street sewer from approximately RW-103 to approximately 100 feet west of RW-101. HW-2 and HW-3 were installed from approximately RW-103 to the intersection of Pollock Street and 16th Street in the first quarter of 2006. Groundwater and LNAPL from HW-1 and HW-2 discharge directly into a Benzene National Emission Standard for Hazardous Air Pollutants (NESHAP) controlled sewer, whereas groundwater and LNAPL from HW-3 discharges directly into an onsite process sewer.

Totalizers were installed in HW-1 and HW-2 on May 25, 2013 and July 6, 2015 respectively. The estimated flow rate for HW-3, as determined by pump testing, is 15.38 gallons per minute (gpm).

The horizontal wells were operational for the reporting period. A total of 8,585,371 gallons of total fluids was recovered by Pollock Street Horizontal Well Recovery system during the reporting period. System performance data for the Pollock Street Horizontal Well Recovery can be found in **Appendix 1**.

Pollock Street Sewer Outfall – Operation During the Second Half of 2016

The Pollock Street Sewer outfall is checked by PES personnel and all findings are recorded. This practice will continue and any identified LNAPL will be handled with spill control equipment to minimize or prevent releases to the Schuylkill River. Evergreen has continued to maintain boom and sorbent sweeps around the tide gate area. Outfall cleaning, including the changing of sorbents and removal of any fugitive LNAPL from the outfall, occurs a minimum of twice per week. The skimmer discharges to a refinery process sewer (S-13 Sump).

The outfall skimmer remained off for the second half of 2016 due to the absence of recoverable oil in the outfall.

Short Pier – Operation During the Second Half of 2016

There was no evidence of LNAPL migration to the Schuylkill River during the reporting period. Unless evidence of LNAPL migration to the river occurs, the system will remain offline.

Passyunk Avenue Sewer

The Passyunk Avenue Sewer combined sewer overflow outfall (CSO) is checked by PES personnel once per shift at low tide and findings are recorded. LNAPL was not observed at the Schuylkill River outfall during the second half of 2016.

AOI 3 – Impoundment Area

There are no groundwater or LNAPL recovery systems active in this area. The AOI 3 SCR/RIR was submitted to the PADEP and the USEPA on September 27, 2010. The SCR/RIR stated that given the limited occurrence and mobility of LNAPL observed in RW-2, the recovery system will remain offline. The disposition of remediation systems in AOI 3 will be revisited in the Cleanup Plan. A revised RIR for AOI 3 will be completed in 2017.

AOI 4 – No. 4 Tank Farm Area

Consent Order / Characterization Status

AOI 1 and AOI 4 were identified by Sunoco as the first areas of the refinery to be investigated in accordance with the Phase II Corrective Action Schedule included in the Current Conditions Report (CCR). Sunoco submitted a SCR to the PADEP and the USEPA for AOI 4 on August 24, 2006. A repackaged SCR/RIR was submitted to the agencies on October 16, 2013. A "Disapproval of Remedial Investigation Report" was received from the PADEP on January 16, 2014. A revised RIR will be completed in 2017.

Penrose Avenue Remediation System – Operation During the Second Half of 2016

Following characterization of AOI 4, Sunoco recommended the installation of a hydraulic control system on the southern border of AOI 4. This system is permitted for discharge by the Philadelphia Water Department (PWD) and Philadelphia Air Management Services (AMS). Installation of the remediation system was completed in December 2012. Following minor modifications to the system to facilitate water discharge monitoring in accordance with the PWD groundwater discharge permit, the system was started on March 20, 2013.

The system was operational for the reporting period with the following exceptions:

- On July 15, the pumps for RW-700 through 704, RW-706, and RW-708 were removed, cleaned, and reinstalled.

- On August 4, RW-706 and RW-708 were turned off due to a release at the valve of Tank 253.
- On September 14, RW-708 was returned to service.
- On September 20, RW-714 was returned to service.

A total of 1,167,970 gallons of groundwater and 1,690 gallons of LNAPL was recovered by the Penrose Avenue Remediation system during the reporting period. Details of minor maintenance as well as groundwater and LNAPL recovery totals for the second half of 2016 can be found in **Appendix 1**.

S-30 and S-36 LNAPL Recovery Systems – Operation During the Second Half of 2016

S-30, S-34, S-35, and S-36 remain offline. The disposition of the S-30 recovery system will be revisited in the Cleanup Plan.

AOI 5 – Girard Point South Tank Field

Consent Order / Characterization Status

In accordance with the Site Wide Approach, a repackaged Site Characterization Report/Remedial Investigation Report/Cleanup Plan (SCR/RIR/Cleanup Plan) was submitted to the PADEP and the USEPA on December 13, 2011. Sunoco received a Remedial Investigation Report/Cleanup Plan Disapproval from the PADEP on March 15, 2012. A revised RIR will be completed in 2017.

9 Berth – Operation During the Second Half of 2016

The system was taken offline in January 2009 and remains offline due to limited presence of LNAPL.

AOI 6 – Girard Point Chemicals Processing Area

Consent Order / Characterization Status

AOI 6 was identified by Sunoco as the third area of the refinery to be investigated in accordance with the Phase II Corrective Action Schedule included in the CCR. A SCR for AOI 6 was submitted to the PADEP and the USEPA on September 29, 2006. A repackaged SCR/RIR was submitted to the agencies on September 3, 2013. A "Disapproval of Remedial Investigation Report/Disapproval of Site Characterization Report" was received on November 27, 2013. A revised RIR will be completed in 2017.

27 Pump House – Operation During the Second Half of 2016

The 27 Pump House Total Fluids Recovery system was turned off September 20, 2010 due to absence of recoverable LNAPL. Passive remediation began on October 10, 2010 with the installation of absorbent socks in wells B-124, B-132, B-137, B-139, B-142, B-143, and B-147. Based on limited recoverable LNAPL in the proximal wells, passive remediation was discontinued on January 26, 2015.

AOI 7 – Girard Point Fuels Processing Area

Consent Order / Characterization Status

In accordance with the Site Wide Approach, a repackaged AOI 7 SCR/RIR was submitted to the PADEP and the USEPA on February 29, 2012. A RIR Addendum was submitted to the agencies on September 19, 2013. On December 18, 2013, Sunoco received comments on the RIR Addendum from the PADEP. These comments will be addressed in the revised RIR expected to be completed in 2017.

No. 3 Separator / Bulkhead Area – Operation During the Second Half of 2016

On July 12, 2011, Sunoco reported a hydrocarbon sheen on the Schuylkill River to the National Response Center. The sheen was directly adjacent to the Girard Point No. 3 Separator. In response to the sheen on the river, Sunoco investigated the source of hydrocarbons to the river through the installation of monitoring wells and exploratory excavation around a process sewer junction box associated with the 137 Crude Unit and the No. 3 Separator. The monitoring wells demonstrated measurable oil on the water table, and the exploratory excavation revealed integrity issues with the junction box. The junction box and associated bulkhead penetration were sealed with concrete.

Construction of a ten recovery well hydraulic control system was completed on August 23, 2012. Groundwater and LNAPL are extracted using pneumatic submersible pumps, and total fluids pass through an oil/water separator. Water is discharged to an onsite process sewer, and LNAPL is recovered in a 1,100-gallon holding tank and recycled by the refinery.

The system was operational for the second half of 2016 with the following exceptions.

- On August 10, the pump in RW-808 was replaced.
- On September 16, all the recovery pumps were removed, cleaned and reinstalled.

A total of 1,232,300 gallons of groundwater and 1,828 gallons of LNAPL was recovered by the system during the second half of 2016. System operation details and performance data for the No. 3 Separator system can be found in **Appendix 1**.

AOI 8 – Point Breeze North Yard

Consent Order / Characterization Status

A SCR was submitted to the PADEP on September 30, 2008. A repackaged SCR/RIR incorporating the PADEP's comments on AOI 8 was submitted to the PADEP and the USEPA on January 31, 2012. Comments from the PADEP on the SCR/RIR were received by email on July 7, 2012. A revised RIR will be completed in 2017.

Northern Boundary/Verizon Area

The northern boundary of AOI 8 near the offsite Verizon property is being evaluated for offsite impacts and potential system installation. This includes an assessment of vapor intrusion at the Verizon property.

PGW Border Recovery System – Operation During the Second Half of 2016

The PGW Total Fluids Recovery system is offline. The system is being evaluated for upgrades in 2017.

Jackson Street Sewer Area – Operation During the Second Half of 2016

The Jackson Street Sewer Total Fluids Recovery system is offline. Due to limited LNAPL presence in the area, the system will remain off unless there are significant increases in LNAPL in the proximal wells. The Jackson Street CSO is checked once per shift by PES refinery personnel for a sheen or the presence of LNAPL. There has been no evidence of sheening to the Schuylkill River throughout the second half of 2016.

Jackson Street Sewer Water Curtain – Operation During the Second Half of 2016

The Jackson Street Sewer Water Curtain was operational during the second half of 2016. Due to reliability issues, the flow meter for the water curtain was taken out of service in December 2009. Water flow rate is irrelevant to system operation. System data for the second half of 2016 is included in **Appendix 1**.

Sunoco agreed at the July 30, 2009 meeting to sample the air in the sewer onsite and offsite following notification from the PADEP of a neighborhood (28th and McKean Streets) complaint. No complaints regarding sewer odors were received during the second half of 2016.

North Yard Bulkhead Area and No. 3 Tank Farm Separator – Operation During the Second Half of 2016

The system was taken offline due to limited LNAPL presence in the area. The system will remain off unless there are significant increases in LNAPL in the proximal wells.

AOI 9 – Schuylkill River Tank Farm

There are no groundwater or LNAPL recovery systems operational in AOI 9. A SCR was submitted to the PADEP and the USEPA on October 30, 2009. A revised RIR was submitted to the agencies in December 2015. The RIR was denied and an RIR addendum to address the deficiencies will be submitted in 2017.

AOI 10 – West Yard

There are no groundwater or LNAPL recovery systems operational in AOI 10. A SCR/RIR was submitted to the PADEP and the USEPA on June 29, 2011. Approval of the RIR was received from the PADEP on January 6, 2012. An ecological assessment was conducted in 2015 and 2016 and an Ecological Risk Assessment Report was submitted in June 2016.

A Solid Waste Management Unit (SWMU) closure letter which addressed past disposal areas located in AOI 8 and AOI 10 (SWMU 2 and SWMU 1 respectively) was submitted the USEPA on February 16, 2016. On November 29, 2016, the USEPA issued a response letter denying the no further action request for SWMU 1. Evergreen is evaluating the available data and will respond to the USEPA in the near future.

AOI 11 – Deep Aquifer

The SCR/RIR was submitted to the PADEP and the USEPA on September 12, 2011. Sunoco received comments to the report by email on December 9, 2011. The Final Report was submitted to the agencies on June 21, 2013. Sunoco received a “Disapproval of Final Report” from the PADEP dated September 26, 2013.

Groundwater Monitoring

The current monitoring program consists of quarterly groundwater and LNAPL gauging of select wells, annual groundwater and LNAPL gauging of site-wide wells, and annual groundwater sampling of select perimeter monitoring wells. During the first, third and fourth quarters, select wells are gauged to monitor LNAPL thickness and determine hydraulic effects of targeted recovery systems. The site-wide annual well gauging event is typically conducted during the second quarter of each year with results used to identify the presence of LNAPL and determine groundwater flow patterns. Annual perimeter groundwater sampling is performed in the second quarter in conjunction with annual site-wide gauging.

Liquid level measurements collected during the third quarter of 2016 are provided in **Table 1**. The fourth quarter 2016 liquid level measurements are provided in **Table 2** of this report.

Please contact me at (302) 477-1305 or tldoerr@evergreenresmgt.com with any questions or comments.

Best Regards,

Evergreen Resources Management Operations

Tiffani L. Doerr, PG
Project Manager

Enclosures: Table 1 – Third Quarter 2016 Gauging Data
Table 2 – Fourth Quarter 2016 Gauging Data
Appendix 1 - Groundwater and LNAPL Recovery Summary, Philadelphia Refining Complex

cc: Mr. Paul Gotthold
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Philadelphia, Pennsylvania 19103

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West Chester, Pennsylvania 19380

File: ENFOS

TABLES

Table 1
Third Quarter 2016 Gauging Data
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

AOI	Well ID	Date	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation (ft NAVD 88)	Well Classification	Recovery Well Yes or No	Static or Pumping	Comments
AOI 1	ARCO-1	8/18/2016	---	27.15	---	-0.20	Intermediate	No	Static	
AOI 1	ARCO-1D	8/18/2016	---	27.10	---	-0.04	Deep	No	Static	
AOI 1	ARCO-2	8/18/2016	---	26.25	---	-0.25	Intermediate	No	Static	
AOI 1	ARCO-3	8/18/2016	---	24.90	---	-0.59	Intermediate	No	Static	
AOI 1	PZ-401	8/29/2016	20.25	20.25	<0.01	3.48	Shallow	No	Static	
AOI 1	PZ-402	8/29/2016	20.04	20.13	0.09	3.33	Shallow	No	Static	
AOI 1	PZ-403	8/29/2016	23.83	23.84	0.01	0.58	Shallow	No	Static	
AOI 1	PZ-404	8/29/2016	26.55	26.80	0.25	-0.58	Shallow	No	Static	
AOI 1	RW-401	8/29/2016	21.15	21.30	0.15	3.59	Intermediate	Yes	Static	
AOI 1	RW-402	8/29/2016	18.52	18.53	0.01	3.19	Intermediate	Yes	Static	
AOI 1	RW-403	8/29/2016	---	24.45	---	-0.32	Intermediate	Yes	Static	
AOI 1	RW-404	8/29/2016	---	22.67	---	1.07	Intermediate	Yes	Static	
AOI 1	RW-405	8/29/2016	24.60	24.81	0.21	-0.52	Intermediate	Yes	Static	
AOI 1	RW-406	8/29/2016	23.38	23.58	0.20	5.17	Intermediate	Yes	Static	
AOI 1	S-81	8/29/2016	NM	NM	NM	NM	Shallow	No	Static	unable to locate well
AOI 1	S-82	8/29/2016	23.43	23.63	0.20	3.82	Shallow	No	Static	
AOI 1	S-83	8/29/2016	20.02	20.38	0.36	3.24	Shallow	No	Static	
AOI 1	S-84P	8/29/2016	---	18.61	---	4.65	Shallow	No	Static	
AOI 1	S-85	8/29/2016	---	24.01	---	1.12	Shallow	No	Static	
AOI 1	S-86	8/29/2016	26.44	26.45	0.01	0.61	Intermediate	No	Static	
AOI 1	S-87I	8/29/2016	---	25.14	---	0.73	Intermediate	No	Static	
AOI 1	S-88	8/29/2016	---	25.16	---	-1.06	Intermediate	No	Static	
AOI 1	S-88A	8/29/2016	---	23.92	---	-0.11	Shallow	No	Static	
AOI 1	S-89	8/29/2016	26.59	26.59	<0.01	-0.60	Intermediate	No	Static	
AOI 1	S-125	8/29/2016	22.58	22.60	0.02	3.41	Shallow	No	Static	
AOI 1	S-179	8/29/2016	---	20.72	---	3.81	Intermediate	Yes	Static	
AOI 1	S-180	8/29/2016	---	19.05	---	3.15	Intermediate	Yes	Static	
AOI 1	S-181	8/29/2016	19.66	19.70	0.04	3.19	Intermediate	Yes	Static	
AOI 1	S-182	8/29/2016	---	19.52	---	3.48	Intermediate	Yes	Static	
AOI 1	S-183	8/29/2016	---	20.25	---	3.23	Intermediate	Yes	Static	
AOI 1	S-184	8/29/2016	---	19.46	---	4.02	Intermediate	Yes	Static	
AOI 1	S-185	8/29/2016	---	19.89	---	3.99	Intermediate	Yes	Static	
AOI 1	S-186	8/29/2016	---	20.34	---	4.02	Intermediate	Yes	Static	
AOI 1	S-187	8/29/2016	---	20.37	---	4.14	Intermediate	Yes	Static	
AOI 1	S-188	8/29/2016	---	20.71	---	4.11	Intermediate	Yes	Static	
AOI 1	S-189	8/29/2016	---	21.64	---	4.15	Intermediate	Yes	Static	
AOI 1	S-190	8/29/2016	---	21.52	---	4.05	Intermediate	Yes	Static	
AOI 1	S-191	8/29/2016	---	21.70	---	4.13	Intermediate	Yes	Static	
AOI 1	S-192	8/29/2016	---	21.91	---	4.11	Intermediate	Yes	Static	
AOI 1	S-198	8/29/2016	24.96	26.29	1.33	4.09	Intermediate	No	Static	
AOI 1	S-199	8/29/2016	24.85	25.90	1.05	4.12	Intermediate	No	Static	
AOI 1	S-200	8/29/2016	---	25.01	---	4.05	Intermediate	No	Static	
AOI 1	S-205	8/29/2016	18.55	19.47	0.92	9.48	Intermediate	No	Static	
AOI 1	S-261	8/29/2016	---	24.10	---	3.31	Intermediate	No	Static	
AOI 1	S-271	8/29/2016	---	24.34	---	4.14	Intermediate	No	Static	
AOI 1	S-272	8/29/2016	---	23.76	---	4.60	Intermediate	No	Static	
AOI 1	S-273	8/29/2016	---	23.49	---	4.26	Intermediate	No	Static	
AOI 1	S-274	8/29/2016	---	23.22	---	4.15	Intermediate	No	Static	
AOI 1	S-275	8/29/2016	---	22.50	---	4.07	Intermediate	No	Static	
AOI 1	S-276	8/29/2016	---	22.68	---	3.91	Intermediate	No	Static	
AOI 1	S-277	8/29/2016	22.30	22.79	0.49	3.30	Intermediate	No	Static	
AOI 1	S-389D	8/29/2016	---	25.59	---	0.71	Deep	No	Static	
AOI 1	S-396	8/29/2016	---	25.29	---	0.90	Intermediate	No	Static	
AOI 2	C-HEADER	8/30/2016	---	14.28	---	6.33	Shallow/Intermediate	No	Static	the area around this well is being excavated
AOI 2	PZ-100	8/30/2016	---	16.21	---	1.86	Shallow	No	Static	
AOI 2	PZ-101	8/30/2016	---	10.35	---	6.82	Shallow	No	Static	
AOI 2	River1	8/30/2016	---	9.20	---	NA	Not Classified	No	Static	
AOI 2	RW-100	8/30/2016	18.97	19.43	0.46	1.70	Shallow	Yes	Static	
AOI 2	RW-101	8/30/2016	17.25	17.80	0.55	2.45	Shallow	Yes	Static	
AOI 2	RW-102	8/30/2016	14.95	14.96	0.01	2.52	Shallow	Yes	Static	
AOI 2	RW-103	8/30/2016	16.63	17.45	0.82	3.28	Shallow	Yes	Static	
AOI 2	RW-104	8/30/2016	---	10.37	---	-1.41	Shallow	Yes	Static	
AOI 2	RW-105	8/30/2016	---	14.45	---	-5.77	Shallow	Yes	Pumping	
AOI 2	RW-106	8/30/2016	9.95	9.96	0.01	-0.65	Shallow	Yes	Static	
AOI 2	RW-107	8/30/2016	---	10.43	---	0.12	Shallow	Yes	Static	
AOI 2	RW-108	8/30/2016	---	7.98	---	1.92	Shallow	Yes	Static	
AOI 2	RW-109	8/30/2016	8.21	8.21	<0.01	1.65	Shallow	Yes	Static	
AOI 2	RW-113	8/30/2016	11.10	11.10	<0.01	-0.86	Shallow	Yes	Static	
AOI 2	RW-114	8/30/2016	---	14.40	---	-1.39	Shallow	Yes	Static	
AOI 2	RW-115	8/30/2016	---	11.06	---	-0.86	Shallow	Yes	Static	
AOI 2	RW-116	8/30/2016	---	11.65	---	-0.84	Shallow	Yes	Static	
AOI 2	RW-117	8/30/2016	---	10.24	---	-0.46	Shallow	Yes	Static	
AOI 2	RW-118	8/30/2016	---	12.27	---	-0.45	Shallow	Yes	Static	
AOI 2	RW-119	8/30/2016	14.51	14.51	<0.01	-1.65	Shallow	Yes	Pumping	
AOI 2	RW-120	8/30/2016	---	15.60	---	-2.02	Shallow	Yes	Pumping	
AOI 2	RW-121	8/30/2016	---	16.05	---	-0.75	Shallow/Intermediate	Yes	Static	
AOI 2	RW-122	8/30/2016	---	10.56	---	-0.32	Shallow	Yes	Pumping	
AOI 2	RW-123	8/30/2016	---	10.32	---	-0.35	Shallow	Yes	Static	
AOI 2	RW-124	8/30/2016	---	18.60	---	-9.44	Shallow	Yes	Pumping	
AOI 2	RW-125	8/30/2016	---	12.78	---	1.49	Shallow	Yes	Static	
AOI 2	RW-126	8/30/2016	9.28	9.29	0.01	-0.05	Shallow	Yes	Static	
AOI 2	RW-127	8/30/2016	17.50	17.50	<0.01	-3.59	Shallow	Yes	Pumping	
AOI 2	RW-128	8/30/2016	---	9.35	---	-0.92	Shallow	Yes	Pumping	
AOI 2	RW-129	8/30/2016	---	21.10	---	-11.27	Shallow	Yes	Pumping	
AOI 2	S-48	8/30/2016	19.85	20.09	0.24	1.37	Shallow/Intermediate	No	Static	
AOI 2	S-53	8/30/2016	18.57	18.71	0.14	3.09	Shallow	No	Static	
AOI 2	S-62	8/30/2016	---	18.97	---	2.41	Intermediate	No	Static	
AOI 2	S-63	8/30/2016	---	20.44	---	0.83	Shallow	No	Static	
AOI 2	S-64	8/30/2016	---	8.46	---	2.10	Shallow/Intermediate	No	Static	
AOI 2	S-65	8/30/2016	11.24	11.32	0.08	-0.63	Shallow/Intermediate	No	Static	
AOI 2	S-91	8/30/2016	20.89	20.90	0.01	2.24	Intermediate	No	Static	
AOI 2	S-92	8/30/2016	11.25	11.29	0.04	8.81	Intermediate	No	Static	

Table 1
Third Quarter 2016 Gauging Data
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

AOI	Well ID	Date	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation (ft NAVD 88)	Well Classification	Recovery Well Yes or No	Static or Pumping	Comments
AOI 2	S-93	8/30/2016	---	17.27	---	0.98	Intermediate	Yes	Static	
AOI 2	S-130	8/30/2016	NM	NM	NM	NM	Shallow/Intermediate	No	Static	well dry at 19.50 feet
AOI 2	S-131	8/30/2016	---	15.52	---	3.24	Shallow	No	Static	
AOI 2	S-132	8/30/2016	---	18.50	---	2.53	Shallow/Intermediate	No	Static	
AOI 2	S-133	8/30/2016	---	18.80	---	3.22	Shallow/Intermediate	No	Static	
AOI 2	S-134	8/30/2016	---	20.64	---	1.39	Shallow/Intermediate	No	Static	
AOI 2	S-135	8/30/2016	21.95	23.81	1.86	0.98	Shallow	No	Static	
AOI 2	S-136	8/30/2016	---	18.06	---	2.53	Shallow/Intermediate	No	Static	
AOI 2	S-137	8/30/2016	---	17.33	---	2.71	Shallow/Intermediate	No	Static	
AOI 2	S-139	8/30/2016	---	18.94	---	2.52	Shallow/Intermediate	No	Static	
AOI 2	S-140	8/30/2016	---	18.87	---	3.16	Shallow/Intermediate	No	Static	
AOI 2	S-141	8/30/2016	19.53	19.76	0.23	2.36	Shallow/Intermediate	No	Static	
AOI 2	S-142	8/30/2016	18.96	19.20	0.24	0.85	Shallow	No	Static	
AOI 2	S-143	8/30/2016	NM	NM	NM	NM	Shallow/Intermediate	No	Static	well damaged, blocked at 9.72 feet
AOI 2	S-156	8/30/2016	18.23	18.24	0.01	2.61	Shallow	No	Static	
AOI 2	S-157	8/30/2016	---	16.95	---	2.99	Shallow/Intermediate	No	Static	
AOI 2	S-159	8/30/2016	16.33	16.36	0.03	2.53	Shallow/Intermediate	No	Static	
AOI 2	S-165	8/30/2016	---	16.99	---	1.12	Shallow/Intermediate	No	Static	
AOI 2	S-166	8/30/2016	---	16.78	---	1.45	Shallow/Intermediate	No	Static	
AOI 2	S-174	8/30/2016	10.20	11.03	0.83	9.31	Shallow	No	Static	
AOI 2	S-175	8/30/2016	17.86	18.02	0.16	2.15	Shallow	No	Static	
AOI 2	S-177	8/30/2016	---	18.26	---	1.30	Shallow/Intermediate	No	Static	
AOI 2	S-178	8/30/2016	---	13.60	---	5.94	Shallow/Intermediate	No	Static	
AOI 2	S-246A	8/30/2016	---	11.15	---	0.61	Shallow/Intermediate	No	Static	
AOI 2	S-247	8/30/2016	---	11.57	---	0.52	Shallow/Intermediate	No	Static	
AOI 2	S-248	8/30/2016	---	10.31	---	0.49	Shallow/Intermediate	No	Static	
AOI 2	S-249	8/30/2016	---	13.43	---	-0.82	Shallow/Intermediate	No	Static	
AOI 2	S-251	8/30/2016	---	18.04	---	1.23	Shallow/Intermediate	Yes	Static	
AOI 2	S-252	8/30/2016	---	18.30	---	0.99	Shallow/Intermediate	Yes	Static	
AOI 2	S-253	8/30/2016	---	18.32	---	2.51	Shallow/Intermediate	Yes	Static	
AOI 2	S-254	8/30/2016	---	18.82	---	2.06	Shallow/Intermediate	Yes	Static	
AOI 2	S-303	8/30/2016	---	19.50	---	3.09	Shallow/Intermediate	No	Static	
AOI 2	S-304	8/30/2016	14.69	14.70	0.01	9.49	Shallow/Intermediate	No	Static	
AOI 2	S-306	8/30/2016	---	22.49	---	-0.02	Intermediate	No	Static	
AOI 2	S-313	8/30/2016	---	18.20	---	2.70	Shallow	Yes	Static	
AOI 2	S-314	8/30/2016	---	18.54	---	2.16	Shallow	Yes	Static	
AOI 2	S-315	8/30/2016	---	24.20	---	-3.73	Shallow	Yes	Pumping	
AOI 2	S-316	8/30/2016	---	16.93	---	3.97	Shallow	Yes	Static	
AOI 2	S-317	8/30/2016	---	17.95	---	2.24	Shallow	Yes	Static	
AOI 2	S-333	8/30/2016	---	13.17	---	0.56	Shallow/Intermediate	No	Static	
AOI 2	S-346	8/30/2016	18.23	18.73	0.50	1.16	Shallow/Intermediate	No	Static	
AOI 2	S-347	8/30/2016	17.83	18.60	0.77	1.15	Shallow/Intermediate	No	Static	
AOI 2	S-348	8/30/2016	12.32	18.19	5.87	6.56	Shallow/Intermediate	No	Static	
AOI 2	S-349	8/30/2016	15.01	15.15	0.14	3.58	Shallow/Intermediate	No	Static	
AOI 2	S-357	8/22/2016	NM	NM	NM	NM	Shallow/Intermediate	No	Static	
AOI 2	S-406	8/30/2016	---	9.86	---	2.34	Shallow/Intermediate	No	Static	
AOI 2	S-420	8/30/2016	---	6.61	---	2.65	Shallow	No	Static	
AOI 3	RW-2	8/12/2016	11.68	12.15	0.47	-0.48	Intermediate	Yes	Static	
AOI 4	MW-1	8/17/2016	---	15.90	---	0.48	Shallow	No	Static	well dry
AOI 4	RW-700	8/17/2016	---	17.97	---	0.04	Intermediate	Yes	Pumping	
AOI 4	RW-701	8/17/2016	---	18.45	---	-0.18	Intermediate	Yes	Pumping	
AOI 4	RW-702	8/17/2016	---	37.62	---	-16.67	Intermediate	Yes	Pumping	
AOI 4	RW-703	8/17/2016	---	31.34	---	-10.72	Intermediate	Yes	Pumping	
AOI 4	RW-704	8/12/2016	---	21.90	---	-1.67	Intermediate	Yes	Pumping	
AOI 4	RW-705	8/16/2016	---	15.89	---	0.03	Intermediate	Yes	Static	
AOI 4	RW-706	8/12/2016	---	19.20	---	-3.31	Intermediate	Yes	Pumping	
AOI 4	RW-707	8/12/2016	---	16.23	---	0.06	Intermediate	Yes	Static	
AOI 4	RW-708	8/12/2016	18.60	18.60	<0.01	-3.10	Intermediate	Yes	Pumping	
AOI 4	RW-709	8/12/2016	---	15.21	---	0.09	Intermediate	Yes	Static	
AOI 4	RW-710	8/12/2016	---	16.00	---	-0.12	Intermediate	Yes	Static	
AOI 4	RW-711	8/16/2016	---	15.40	---	0.09	Intermediate	Yes	Static	
AOI 4	RW-712	8/12/2016	---	15.43	---	0.13	Intermediate	Yes	Static	
AOI 4	RW-713	8/12/2016	---	14.84	---	0.18	Intermediate	Yes	Static	
AOI 4	RW-714	8/12/2016	15.01	15.01	<0.01	0.21	Intermediate	Yes	Static	
AOI 4	RW-715	8/16/2016	---	15.04	---	0.33	Intermediate	Yes	Static	
AOI 4	RW-716	8/12/2016	---	15.05	---	0.50	Intermediate	Yes	Static	
AOI 4	RW-717	8/17/2016	---	15.43	---	0.18	Intermediate	Yes	Static	
AOI 4	S-28	8/17/2016	NM	NM	NM	NM	Shallow	No	Static	well dry
AOI 4	S-29	8/12/2016	20.67	23.30	2.63	2.27	Intermediate	No	Static	
AOI 4	S-30	8/12/2016	21.58	29.24	7.66	0.54	Intermediate	Yes	Static	
AOI 4	S-34	8/12/2016	---	17.44	---	3.45	Shallow	No	Static	
AOI 4	S-35	8/18/2016	---	20.70	---	0.24	Shallow	No	Static	
AOI 4	S-36	8/12/2016	---	23.75	---	0.48	Shallow	No	Static	
AOI 4	S-38	8/16/2016	---	18.76	---	0.19	Shallow	No	Static	
AOI 4	S-39D	8/31/2016	---	25.14	---	-0.63	Not Classified	No	Static	
AOI 4	S-56	8/18/2016	NM	NM	NM	NM	Shallow	No	Static	unable to locate well
AOI 4	S-57	8/16/2016	---	12.15	---	0.35	Shallow	No	Static	
AOI 4	S-96	8/17/2016	---	13.25	---	6.52	Shallow	No	Static	
AOI 4	S-97	8/17/2016	---	22.55	---	5.40	Shallow	No	Static	
AOI 4	S-103	8/16/2016	NM	NM	NM	NM	Shallow	No	Static	
AOI 4	S-119	8/12/2016	---	26.15	---	0.45	Intermediate	No	Static	
AOI 4	S-120	8/12/2016	---	19.16	---	0.66	Intermediate	No	Static	
AOI 4	S-121	8/15/2016	---	20.69	---	0.43	Intermediate	No	Static	
AOI 4	S-123	8/18/2016	---	21.85	---	0.28	Intermediate	No	Static	
AOI 4	S-124	8/19/2016	---	19.75	---	3.45	Intermediate	No	Static	
AOI 4	S-216	8/16/2016	---	15.08	---	0.68	Intermediate	No	Static	
AOI 4	S-218	8/17/2016	---	20.80	---	4.94	Intermediate	No	Static	
AOI 4	S-218D	8/31/2016	---	25.15	---	-0.63	Not Classified	No	Static	
AOI 4	S-219	8/15/2016	---	22.63	---	0.46	Intermediate	No	Static	
AOI 4	S-221	8/31/2016	22.63	24.86	2.23	-0.03	Intermediate	No	Static	
AOI 4	S-222	8/17/2016	---	15.98	---	0.31	Intermediate	No	Static	
AOI 4	S-223	8/17/2016	---	15.71	---	0.17	Intermediate	No	Static	

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AOI	Well ID	Date	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation (ft NAVD 88)	Well Classification	Recovery Well Yes or No	Static or Pumping	Comments
AOI 4	S-224	8/16/2016	---	15.88	---	0.15	Intermediate	No	Static	
AOI 4	S-225	8/15/2016	---	16.57	---	-1.58	Intermediate	No	Static	
AOI 4	S-233	8/31/2016	21.14	22.22	1.08	3.02	Intermediate	No	Static	
AOI 4	S-234	8/17/2016	---	21.34	---	-0.11	Intermediate	No	Static	
AOI 4	S-235	8/12/2016	22.65	23.81	1.16	0.27	Intermediate	No	Static	
AOI 4	S-236	8/31/2016	22.71	24.68	1.97	-0.09	Intermediate	No	Static	
AOI 4	S-237	8/31/2016	22.49	24.75	2.26	-0.08	Intermediate	No	Static	bottom of well
AOI 4	S-239	8/17/2016	---	15.67	---	0.15	Intermediate	No	Static	
AOI 4	S-240	8/31/2016	23.53	26.04	2.51	-0.11	Intermediate	No	Static	
AOI 4	S-241	8/31/2016	25.65	28.90	3.25	0.08	Intermediate	No	Static	
AOI 4	S-242	8/18/2016	---	21.77	---	0.12	Intermediate	No	Static	
AOI 4	S-243	8/17/2016	---	15.38	---	0.36	Intermediate	No	Static	
AOI 4	S-244	8/15/2016	---	21.74	---	0.20	Intermediate	No	Static	
AOI 4	S-245	8/31/2016	---	22.10	---	0.11	Intermediate	No	Static	
AOI 4	S-246	8/31/2016	---	20.64	---	0.92	Intermediate	No	Static	
AOI 4	S-278	8/18/2016	20.70	21.15	0.45	0.25	Intermediate	No	Static	
AOI 4	S-279	8/12/2016	23.25	23.25	<0.01	3.21	Intermediate	No	Static	
AOI 4	S-329	8/17/2016	---	20.96	---	-0.04	Intermediate	No	Static	
AOI 4	S-364	8/16/2016	---	3.47	---	17.86	Shallow/Intermediate	No	Static	well damaged, blockage at 5 feet
AOI 4	S-366	8/16/2016	---	21.75	---	0.51	Shallow/Intermediate	No	Static	
AOI 4	S-369	8/16/2016	---	29.76	---	-0.34	Shallow/Intermediate	No	Static	
AOI 4	S-370	8/16/2016	---	11.88	---	0.18	Shallow/Intermediate	No	Static	
AOI 4	S-371	8/16/2016	---	20.20	---	1.85	Shallow/Intermediate	No	Static	
AOI 4	S-372	8/17/2016	---	19.25	---	0.48	Shallow/Intermediate	No	Static	
AOI 4	S-373	8/31/2016	20.90	21.13	0.23	-0.17	Not Classified	No	Static	
AOI 4	S-380	8/12/2016	---	20.78	---	0.54	Shallow/Intermediate	No	Static	
AOI 4	S-381	8/17/2016	---	25.75	---	0.11	Shallow/Intermediate	No	Static	
AOI 4	S-416	8/17/2016	---	18.03	---	NA	Not Classified	No	Static	
AOI 4,11	S-38D	8/18/2016	---	19.51	---	-1.81	Deep	No	Static	
AOI 4,11	S-38D2	8/18/2016	---	19.34	---	-1.15	Deep	No	Static	
AOI 4,11	S-59D	8/19/2016	---	16.85	---	0.28	Deep	No	Static	
AOI 4,11	S-119D	8/19/2016	---	25.04	---	0.06	Deep	No	Static	
AOI 5	RWBH-1	8/12/2016	5.75	5.76	0.01	-0.42	Shallow	Yes	Static	
AOI 5	RWBH-2	8/12/2016	3.31	4.26	0.95	0.73	Shallow	Yes	Static	
AOI 6	B-39	8/19/2016	---	2.48	---	3.00	Shallow	No	Static	
AOI 6	B-43	8/19/2016	---	4.36	---	2.85	Shallow	No	Static	
AOI 6	B-116	8/19/2016	---	5.76	---	-0.69	Shallow	No	Static	
AOI 6	B-117	8/19/2016	---	8.22	---	-2.25	Shallow	No	Static	
AOI 6	B-124	8/12/2016	5.12	6.83	1.71	3.53	Shallow	Yes	Static	
AOI 6	B-125	8/19/2016	---	4.82	---	3.69	Shallow	No	Static	
AOI 6	B-126	8/19/2016	---	5.20	---	3.31	Shallow	No	Static	
AOI 6	B-132	8/12/2016	4.77	4.86	0.09	2.09	Shallow	No	Static	
AOI 6	B-133	8/12/2016	---	5.08	---	2.25	Shallow	Yes	Static	
AOI 6	B-134	8/12/2016	4.75	4.75	<0.01	1.78	Shallow	Yes	Static	
AOI 6	B-135	8/12/2016	4.87	5.13	0.26	1.48	Shallow	No	Static	
AOI 6	B-136	8/12/2016	5.37	5.39	0.02	3.78	Shallow	Yes	Static	
AOI 6	B-137	8/12/2016	4.59	5.33	0.74	4.04	Shallow	Yes	Static	
AOI 6	B-138	8/12/2016	4.77	4.78	0.01	4.56	Shallow	Yes	Static	
AOI 6	B-139	8/12/2016	NM	NM	NM	NM	Shallow	Yes	Static	well destroyed
AOI 6	B-142	8/12/2016	7.00	7.95	0.95	2.61	Shallow	Yes	Static	
AOI 6	B-143	8/12/2016	5.21	6.07	0.86	3.65	Shallow	Yes	Static	
AOI 6	B-145	8/19/2016	---	5.14	---	4.67	Shallow	No	Static	
AOI 6	B-147	8/12/2016	6.00	6.08	0.08	2.89	Shallow	Yes	Static	
AOI 6	B-150	8/19/2016	---	5.61	---	2.19	Shallow	No	Static	
AOI 6	B-158	8/19/2016	---	3.01	---	5.20	Shallow	No	Static	
AOI 6	B-164	8/19/2016	---	5.45	---	3.37	Shallow	No	Static	
AOI 6	B-169	8/19/2016	---	2.22	---	3.90	Shallow	No	Static	
AOI 6	B-170	8/19/2016	---	2.37	---	-2.33	Shallow	No	Static	
AOI 6	B-172	8/19/2016	---	4.60	---	NA	Not Classified	No	Static	
AOI 6	B-173	8/19/2016	---	4.89	---	NA	Not Classified	No	Static	
AOI 6	B-174	8/19/2016	---	3.98	---	NA	Not Classified	No	Static	
AOI 6	B-175	8/19/2016	---	7.75	---	NA	Not Classified	No	Static	
AOI 6	SUMP-1	8/12/2016	5.71	5.80	0.09	4.98	Shallow	Yes	Static	
AOI 6	U-4	8/19/2016	---	3.78	---	5.44	Shallow	No	Static	
AOI 6	URS-1	8/19/2016	---	6.68	---	3.34	Shallow	No	Static	
AOI 6	URS-3	8/19/2016	---	4.20	---	3.40	Shallow	No	Static	
AOI 6	URS-4	8/19/2016	---	7.52	---	2.42	Shallow	No	Static	
AOI 6	URS-5	8/19/2016	---	5.29	---	2.65	Shallow	No	Static	
AOI 6,11	B-133D	8/19/2016	---	10.91	---	-2.31	Deep	No	Static	
AOI 7	C-170	8/25/2016	---	4.81	---	NA	Not Classified	No	Static	
AOI 7	C-171	8/25/2016	---	4.09	---	NA	Not Classified	No	Static	
AOI 7	C-172	8/25/2016	---	3.88	---	NA	Not Classified	No	Static	
AOI 7	River4	8/12/2016	---	9.20	---	NA	Not Classified	No	Static	
AOI 7	RW-801	8/12/2016	---	19.00	---	-12.73	Shallow	Yes	Pumping	
AOI 7	RW-802	8/12/2016	---	21.10	---	-15.40	Shallow	Yes	Pumping	
AOI 7	RW-803	8/12/2016	---	21.10	---	-15.32	Shallow	Yes	Pumping	
AOI 7	RW-804	8/12/2016	---	20.70	---	-14.92	Shallow	Yes	Pumping	
AOI 7	RW-805	8/12/2016	---	17.35	---	-11.60	Shallow	Yes	Pumping	
AOI 7	RW-806	8/12/2016	---	20.10	---	-14.69	Shallow	Yes	Pumping	
AOI 7	RW-807	8/12/2016	---	19.05	---	-12.21	Shallow	Yes	Pumping	
AOI 7	RW-808	8/12/2016	---	18.50	---	-12.42	Shallow	Yes	Pumping	
AOI 7	RW-809	8/12/2016	---	20.10	---	-13.55	Shallow	Yes	Pumping	
AOI 7	RW-810	8/12/2016	---	16.25	---	-9.81	Shallow	Yes	Pumping	
AOI 8	N-2	8/30/2016	---	18.70	---	7.63	Shallow	No	Static	well was redeveloped
AOI 8	N-12	8/31/2016	---	14.00	---	13.19	Intermediate	No	Static	well riser was repaired, well was redeveloped
AOI 8	N-26	8/31/2016	---	5.00	---	16.03	Shallow	No	Static	well riser was repaired, well was redeveloped
AOI 8	N-30	8/30/2016	---	33.50	---	2.80	Deep	No	Static	well was redeveloped
AOI 8	N-41	8/30/2016	NM	NM	NM	NM	Shallow	No	Static	unable to access
AOI 8	N-50D	8/30/2016	---	28.00	---	4.31	Deep	No	Static	well damaged, filled with stones from 53-60 ft btoc
AOI 8	N-76	8/12/2016	20.36	26.64	6.28	9.42	Intermediate	Yes	Static	
AOI 8	N-91	8/31/2016	---	6.00	---	14.90	Shallow	No	Static	well riser was repaired, well was redeveloped
AOI 8	N-103	8/31/2016	---	18.00	---	11.33	Intermediate	No	Static	well was redeveloped

Table 1
Third Quarter 2016 Gauging Data
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

AOI	Well ID	Date	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation (ft NAVD 88)	Well Classification	Recovery Well Yes or No	Static or Pumping	Comments
AOI 8	N-123	8/30/2016	NM	NM	NM	NM	Intermediate	No	Static	well damaged, debris in well
AOI 8	N-137	8/25/2016	17.53	17.43	-0.10	8.08	Intermediate	No	Static	changed out wick
AOI 8	N-138	8/25/2016	27.13	27.27	0.14	8.13	Intermediate	No	Static	changed out wick
AOI 8	N-139	8/25/2016	26.94	27.10	0.16	8.02	Intermediate	No	Static	changed out wick
AOI 8	N-140	8/12/2016	---	17.18	---	9.56	Shallow	No	Static	
AOI 8	N-141	8/12/2016	---	13.97	---	10.42	Shallow	No	Static	
AOI 8	N-142	8/25/2016	26.60	26.60	<0.01	7.97	Shallow	No	Static	
AOI 8	N-143	8/12/2016	---	22.86	---	10.16	Shallow	No	Static	
AOI 8	N-144	8/25/2016	---	26.03	---	8.25	Shallow	No	Static	
AOI 8	N-145	8/25/2016	---	18.07	---	7.92	Shallow	No	Static	
AOI 8	N-146	8/25/2016	17.61	18.18	0.57	8.65	Shallow	No	Static	
AOI 8	PZ-300	8/12/2016	---	17.39	---	9.38	Intermediate	No	Static	
AOI 8	River2	8/12/2016	---	6.40	---	NA	Not Classified	No	Static	
AOI 8	RW-200	8/12/2016	---	6.31	---	5.71	Intermediate	Yes	Static	
AOI 8	RW-201	8/12/2016	23.08	23.55	0.47	8.84	Intermediate	Yes	Static	
AOI 8	RW-202	8/12/2016	---	20.69	---	8.82	Intermediate	Yes	Static	
AOI 8	RW-203	8/12/2016	22.68	22.93	0.25	8.39	Intermediate	Yes	Static	
AOI 8	RW-204	8/12/2016	19.17	20.83	1.66	9.23	Intermediate	Yes	Static	
AOI 8	RW-205	8/12/2016	19.27	22.06	2.79	10.15	Intermediate	Yes	Static	
AOI 8	RW-206	8/12/2016	21.28	22.35	1.07	9.54	Intermediate	Yes	Static	
AOI 8	RW-300	8/12/2016	15.11	15.37	0.26	6.49	Intermediate	Yes	Static	
AOI 8	RW-301	8/12/2016	---	12.23	---	10.18	Intermediate	Yes	Static	
AOI 8	RW-302	8/12/2016	---	13.51	---	10.58	Intermediate	Yes	Static	
AOI 8	RW-303	8/12/2016	---	14.26	---	10.72	Intermediate	Yes	Static	
AOI 8	RW-304	8/12/2016	---	15.12	---	10.16	Intermediate	Yes	Static	
AOI 8	RW-305	8/12/2016	---	15.07	---	10.20	Intermediate	Yes	Static	
AOI 8	RW-306	8/12/2016	13.12	13.16	0.04	10.45	Intermediate	Yes	Static	
AOI 8	RW-307	8/12/2016	---	14.78	---	8.48	Intermediate	Yes	Static	
AOI 8	RW-308	8/12/2016	---	16.80	---	8.81	Intermediate	Yes	Static	
AOI 8	RW-309	8/12/2016	---	15.70	---	9.53	Intermediate	Yes	Static	
AOI 8	RW-500	8/12/2016	---	2.60	---	4.96	Intermediate	Yes	Static	
AOI 8	RW-501	8/12/2016	---	6.00	---	3.79	Intermediate	Yes	Static	
AOI 8	RW-502	8/12/2016	8.81	9.22	0.41	3.62	Intermediate	Yes	Static	
BELMONT	MW-26	8/29/2016	22.41	23.36	0.95	4.12	Shallow	No	Static	
BELMONT	MW-27	8/29/2016	24.45	25.03	0.58	4.08	Shallow	No	Static	
BELMONT	MW-28	8/29/2016	---	24.79	---	3.99	Intermediate	No	Static	
BELMONT	MW-29	8/29/2016	24.20	25.93	1.73	4.39	Intermediate	No	Static	
BELMONT	MW-30	8/29/2016	---	27.37	---	4.33	Shallow	No	Static	
BELMONT	MW-31	8/29/2016	---	25.35	---	5.21	Shallow	No	Static	
BELMONT	MW-32	8/29/2016	---	25.19	---	3.95	Intermediate	No	Static	
BELMONT	MW-33	8/29/2016	---	25.95	---	4.04	Shallow	No	Static	
BELMONT	MW-35	8/29/2016	---	26.95	---	3.70	Intermediate	No	Static	
BELMONT	MW-36	8/29/2016	---	28.16	---	4.41	Intermediate	No	Static	
BELMONT	MW-37	8/29/2016	---	27.27	---	4.65	Intermediate	No	Static	
BELMONT	MW-38	8/29/2016	---	23.40	---	4.22	Intermediate	No	Static	
BELMONT	MW-39	8/29/2016	---	23.28	---	4.27	Intermediate	No	Static	
BELMONT	MW-40	8/29/2016	23.59	23.90	0.31	4.23	Intermediate	No	Static	
BELMONT	MW-41	8/29/2016	---	23.13	---	4.22	Intermediate	No	Static	
BELMONT	MW-42	8/29/2016	NM	NM	NM	NM	Intermediate	No	Static	well destroyed
BELMONT	MW-43	8/29/2016	---	26.34	---	4.27	Intermediate	No	Static	
BELMONT	MW-44	8/29/2016	---	25.73	---	3.57	Intermediate	No	Static	
BELMONT	OW-2	8/29/2016	---	27.21	---	4.46	Shallow	No	Static	
BELMONT	OW-12	8/29/2016	NM	NM	NM	NM	Shallow	No	Static	
BELMONT	OW-13	8/29/2016	---	27.75	---	4.45	Shallow	No	Static	
BELMONT	OW-14	8/29/2016	---	27.86	---	4.35	Shallow	No	Static	
BELMONT	OW-16	8/29/2016	---	27.05	---	4.33	Shallow	No	Static	
BELMONT	OW-17	8/29/2016	---	26.21	---	3.78	Shallow	No	Static	
BELMONT	OW-18	8/29/2016	---	26.34	---	4.50	Intermediate	No	Static	
BELMONT	OW-19	8/29/2016	---	26.00	---	5.00	Intermediate	No	Static	
BELMONT	OW-20	8/29/2016	---	27.53	---	4.34	Shallow	No	Static	
BELMONT	PZ-400	8/29/2016	---	23.92	---	4.18	Shallow	No	Static	
BELMONT	RW-1	8/29/2016	---	25.45	---	4.10	Intermediate	Yes	Static	
BELMONT	RW-4	8/29/2016	27.59	28.22	0.63	2.72	Intermediate	Yes	Pumping	
BELMONT	RW-6	8/29/2016	---	26.68	---	4.38	Intermediate	Yes	Static	
BELMONT	RW-7	8/29/2016	---	23.90	---	4.31	Intermediate	Yes	Static	
BELMONT	RW-15	8/29/2016	---	26.83	---	3.22	Intermediate	Yes	Static	
BELMONT	RW-21	8/29/2016	---	24.61	---	4.25	Shallow	Yes	Static	
BELMONT	RW-22	8/29/2016	---	22.69	---	4.34	Shallow	Yes	Static	
BELMONT	RW-23	8/29/2016	22.76	22.81	0.05	4.36	Intermediate	Yes	Static	
BELMONT	RW-24	8/29/2016	22.94	23.11	0.17	4.19	Intermediate	Yes	Static	
BELMONT	RW-25	8/29/2016	25.78	26.38	0.60	4.23	Intermediate	Yes	Static	
BELMONT	RW-26	8/29/2016	---	25.62	---	3.59	Intermediate	Yes	Static	
BELMONT	RW-27	8/29/2016	---	26.16	---	3.55	Intermediate	Yes	Static	
BELMONT	RW-28	8/29/2016	---	25.81	---	3.93	Intermediate	Yes	Static	
BELMONT	RW-29	8/29/2016	---	25.80	---	3.64	Intermediate	Yes	Static	
BELMONT	RW-30	8/29/2016	---	25.98	---	3.41	Intermediate	Yes	Static	
BELMONT	RW-31	8/29/2016	---	25.62	---	3.76	Intermediate	Yes	Static	
BELMONT	RW-32	8/29/2016	---	24.58	---	4.47	Intermediate	Yes	Static	
BELMONT	RW-400	8/29/2016	---	24.01	---	4.18	Intermediate	Yes	Static	
BELMONT	S-74	8/29/2016	---	25.78	---	4.26	Shallow	No	Static	
BELMONT	S-75	8/29/2016	---	27.02	---	4.21	Shallow	No	Static	
BELMONT	S-76	8/29/2016	26.81	27.62	0.81	4.06	Shallow	No	Static	
BELMONT	S-330	8/29/2016	---	25.65	---	4.20	Intermediate	No	Static	
BELMONT	S-331	8/29/2016	---	27.40	---	3.88	Intermediate	No	Static	
BELMONT	S-332	8/29/2016	---	26.19	---	4.06	Intermediate	No	Static	
BELMONT	S-393D	8/29/2016	---	29.86	---	2.20	Deep	No	Static	
BELMONT	S-394	8/29/2016	---	30.10	---	2.02	Deep	No	Static	
BELMONT	S-395	8/29/2016	---	27.68	---	4.54	Shallow	No	Static	
BELMONT	TW-3	8/29/2016	---	27.80	---	4.31	Shallow	No	Static	
BELMONT	TW-5	8/29/2016	---	27.54	---	4.53	Shallow	No	Static	
BELMONT	TW-8	8/29/2016	NM	NM	NM	NM	Shallow	No	Static	well damaged, blocked at 7.65 feet
BELMONT	TW-9	8/29/2016	---	27.69	---	4.41	Shallow	No	Static	

Table 1
Third Quarter 2016 Gauging Data
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

AOI	Well ID	Date	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation (ft NAVD 88)	Well Classification	Recovery Well Yes or No	Static or Pumping	Comments
BELMONT	TW-10	8/29/2016	NM	NM	NM	NM	Shallow	No	Static	unable to access
BELMONT	TW-11	8/29/2016	---	28.12	---	4.28	Shallow	No	Static	
PGW	PGW-MW-8D	8/31/2016	---	32.55	---	NA	Deep	No	Static	

Notes:
For product thicknesses <0.01 ft, the corrected groundwater elevation was calculated using 0.01 foot.
LNAPL = Light non-aqueous phase liquid
ft = Feet
ft btoc = Feet below top of casing
NAVD 88 = North American Vertical Datum of 1988
--- = LNAPL not present
NM = Field reading not measured and/or corrected groundwater elevation not calculated due to lack of surveyed reference elevation
NA = Not Accessible, Not Applicable, or Not Available
Not Classified = Well classification not available

Table 2
Fourth Quarter 2016 Gauging Data
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

AOI	Well ID	Date	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation (ft NAVD 88)	Well Classification	Recovery Well Yes or No	Static or Pumping	Comments
AOI 1	ARCO-1	11/29/2016	---	27.48	---	-0.53	Intermediate	No	Static	
AOI 1	ARCO-1D	11/29/2016	---	27.42	---	-0.36	Deep	No	Static	
AOI 1	ARCO-2	11/29/2016	---	26.55	---	-0.55	Intermediate	No	Static	
AOI 1	ARCO-3	11/29/2016	---	25.19	---	-0.88	Intermediate	No	Static	
AOI 1	PZ-401	11/29/2016	20.89	20.89	<0.01	2.84	Shallow	No	Static	
AOI 1	PZ-402	11/29/2016	21.01	21.33	0.32	2.32	Shallow	No	Static	
AOI 1	PZ-403	11/29/2016	23.99	24.00	0.01	0.42	Shallow	No	Static	viscous LNAPL
AOI 1	PZ-404	11/29/2016	26.61	26.79	0.18	-0.63	Shallow	No	Static	
AOI 1	RW-110	11/29/2016	---	17.10	---	0.57	Shallow	Yes	Static	
AOI 1	RW-111	11/29/2016	---	17.23	---	0.49	Shallow	Yes	Static	
AOI 1	RW-112	11/29/2016	---	17.19	---	0.42	Shallow	Yes	Static	
AOI 1	RW-401	11/29/2016	21.89	22.29	0.40	2.80	Intermediate	Yes	Static	
AOI 1	RW-402	11/29/2016	18.50	18.50	<0.01	3.22	Intermediate	Yes	Pumping	
AOI 1	RW-403	11/29/2016	---	22.30	---	1.83	Intermediate	Yes	Static	
AOI 1	RW-404	11/29/2016	---	23.12	---	0.62	Intermediate	Yes	Static	
AOI 1	RW-405	11/29/2016	24.80	25.20	0.40	-0.75	Intermediate	Yes	Static	
AOI 1	RW-406	11/29/2016	24.23	24.50	0.27	4.31	Intermediate	Yes	Static	
AOI 1	S-41	11/29/2016	---	26.37	---	-0.62	Intermediate	No	Static	
AOI 1	S-42I	11/29/2016	NM	NM	NM	NM	Intermediate	No	Static	unable to gauge - data logger in well
AOI 1	S-43	11/29/2016	---	24.43	---	-1.21	Intermediate	No	Static	
AOI 1	S-44	11/29/2016	NM	NM	NM	NM	Intermediate	No	Static	unable to gauge - data logger in well
AOI 1	S-45	11/29/2016	NM	NM	NM	NM	Intermediate	No	Static	well is dry at 19.68
AOI 1	S-46	11/29/2016	---	22.00	---	0.56	Intermediate	No	Static	
AOI 1	S-47I	11/29/2016	---	21.62	---	0.59	Intermediate	No	Static	
AOI 1	S-50	11/29/2016	---	22.90	---	-0.42	Shallow	No	Static	
AOI 1	S-51	11/29/2016	---	22.79	---	-0.25	Shallow	No	Static	
AOI 1	S-52	11/29/2016	---	23.48	---	0.06	Intermediate	No	Static	
AOI 1	S-77	11/29/2016	10.75	11.36	0.61	19.94	Shallow	No	Static	
AOI 1	S-77P	11/29/2016	---	29.06	---	3.98	Shallow	No	Static	
AOI 1	S-78	11/29/2016	---	26.55	---	4.38	Intermediate	No	Static	
AOI 1	S-79	11/29/2016	23.82	24.15	0.33	7.10	Intermediate	No	Static	
AOI 1	S-79P	11/29/2016	---	26.91	---	3.51	Shallow	No	Static	
AOI 1	S-80	11/29/2016	---	27.37	---	4.76	Shallow	No	Static	
AOI 1	S-81	11/29/2016	NM	NM	NM	NM	Shallow	No	Static	unable to locate well
AOI 1	S-82	11/29/2016	---	23.92	---	3.37	Shallow	No	Static	
AOI 1	S-83	11/29/2016	19.60	20.00	0.40	3.65	Shallow	No	Static	
AOI 1	S-84P	11/29/2016	---	20.30	---	2.96	Shallow	No	Static	
AOI 1	S-85	11/29/2016	---	24.53	---	0.60	Shallow	No	Static	
AOI 1	S-86	11/29/2016	26.64	26.65	0.01	0.41	Intermediate	No	Static	
AOI 1	S-87I	11/29/2016	---	25.45	---	0.42	Intermediate	No	Static	
AOI 1	S-88	11/29/2016	---	25.22	---	-1.12	Intermediate	No	Static	
AOI 1	S-88A	11/29/2016	---	24.21	---	-0.41	Shallow	No	Static	
AOI 1	S-89	11/29/2016	26.65	26.65	<0.01	-0.65	Intermediate	No	Static	
AOI 1	S-95	11/29/2016	---	23.02	---	-0.03	Intermediate	No	Static	
AOI 1	S-98	11/29/2016	---	23.78	---	5.02	Intermediate	No	Static	
AOI 1	S-99	11/29/2016	---	25.56	---	-0.16	Intermediate	No	Static	
AOI 1	S-100	11/29/2016	24.00	24.51	0.51	2.84	Intermediate	No	Static	
AOI 1	S-101	11/29/2016	---	47.97	---	1.15	Intermediate	No	Static	
AOI 1	S-116	11/29/2016	NM	NM	NM	NM	Shallow	No	Static	unable to locate well
AOI 1	S-117	11/29/2016	---	17.65	---	0.76	Shallow	No	Static	
AOI 1	S-118	11/29/2016	---	18.12	---	-0.22	Shallow	No	Static	
AOI 1	S-125	11/29/2016	23.44	23.45	0.01	2.55	Shallow	No	Static	
AOI 1	S-126	11/29/2016	16.61	17.10	0.49	11.80	Shallow	No	Static	viscous LNAPL
AOI 1	S-127	11/29/2016	---	16.81	---	0.29	Shallow	No	Static	
AOI 1	S-162	11/29/2016	17.88	17.89	0.01	0.18	Shallow	No	Static	
AOI 1	S-164	11/29/2016	---	16.00	---	0.70	Shallow	No	Static	
AOI 1	S-179	11/29/2016	---	22.65	---	1.88	Intermediate	Yes	Static	
AOI 1	S-180	11/29/2016	---	19.09	---	3.11	Intermediate	Yes	Pumping	
AOI 1	S-181	11/29/2016	19.70	19.73	0.03	3.15	Intermediate	Yes	Pumping	
AOI 1	S-182	11/29/2016	---	19.50	---	3.50	Intermediate	Yes	Pumping	
AOI 1	S-183	11/29/2016	---	20.26	---	3.22	Intermediate	Yes	Pumping	
AOI 1	S-184	11/29/2016	---	19.47	---	4.01	Intermediate	Yes	Pumping	
AOI 1	S-185	11/29/2016	---	19.90	---	3.98	Intermediate	Yes	Pumping	
AOI 1	S-186	11/29/2016	---	20.32	---	4.04	Intermediate	Yes	Pumping	
AOI 1	S-187	11/29/2016	---	20.34	---	4.17	Intermediate	Yes	Pumping	
AOI 1	S-188	11/29/2016	---	20.70	---	4.12	Intermediate	Yes	Pumping	
AOI 1	S-189	11/29/2016	---	21.66	---	4.13	Intermediate	Yes	Pumping	
AOI 1	S-190	11/29/2016	---	21.51	---	4.06	Intermediate	Yes	Pumping	
AOI 1	S-191	11/29/2016	---	21.72	---	4.11	Intermediate	Yes	Pumping	
AOI 1	S-192	11/29/2016	---	21.89	---	4.13	Intermediate	Yes	Pumping	
AOI 1	S-193	11/29/2016	---	24.62	---	3.48	Intermediate	Yes	Static	
AOI 1	S-194	11/29/2016	---	27.40	---	3.64	Shallow	No	Static	
AOI 1	S-196	11/29/2016	---	46.10	---	3.95	Shallow	No	Static	
AOI 1	S-197	11/29/2016	---	45.94	---	3.84	Shallow	No	Static	
AOI 1	S-198	11/29/2016	25.53	26.66	1.13	3.57	Intermediate	No	Static	
AOI 1	S-199	11/29/2016	25.28	26.49	1.21	3.66	Intermediate	No	Static	

Table 2
Fourth Quarter 2016 Gauging Data
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

AOI	Well ID	Date	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation (ft NAVD 88)	Well Classification	Recovery Well Yes or No	Static or Pumping	Comments
AOI 1	S-200	11/29/2016	---	25.66	---	3.40	Intermediate	No	Static	
AOI 1	S-201	11/29/2016	24.21	24.40	0.19	3.68	Intermediate	No	Static	
AOI 1	S-202	11/29/2016	---	28.59	---	4.02	Intermediate	No	Static	
AOI 1	S-203	11/29/2016	28.23	28.90	0.67	3.68	Intermediate	No	Static	
AOI 1	S-205	11/29/2016	20.97	21.89	0.92	7.06	Intermediate	No	Static	
AOI 1	S-206	11/29/2016	---	27.64	---	4.14	Intermediate	No	Static	
AOI 1	S-207	11/29/2016	---	15.81	---	11.39	Intermediate	No	Static	
AOI 1	S-208	11/29/2016	---	19.81	---	1.05	Intermediate	No	Static	
AOI 1	S-209	11/29/2016	---	26.60	---	0.38	Intermediate	No	Static	
AOI 1	S-210	11/29/2016	---	24.24	---	-0.55	Intermediate	No	Static	
AOI 1	S-211	11/29/2016	---	14.44	---	0.81	Intermediate	No	Static	
AOI 1	S-212	11/29/2016	NM	NM	NM	NM	Intermediate	No	Static	well damaged
AOI 1	S-213	11/29/2016	---	14.71	---	0.50	Intermediate	No	Static	
AOI 1	S-215	11/29/2016	NM	NM	NM	NM	Intermediate	No	Static	unable to access well due to ponding of rain water
AOI 1	S-226	11/29/2016	---	22.25	---	-0.17	Intermediate	No	Static	
AOI 1	S-227	11/29/2016	---	22.98	---	-1.19	Intermediate	No	Static	
AOI 1	S-228	11/29/2016	---	22.33	---	-1.15	Intermediate	No	Static	
AOI 1	S-230	11/29/2016	---	15.22	---	4.97	Intermediate	No	Static	
AOI 1	S-231	11/29/2016	---	20.51	---	-0.57	Intermediate	No	Static	
AOI 1	S-232	11/29/2016	---	21.25	---	-0.94	Intermediate	No	Static	
AOI 1	S-255	11/29/2016	---	23.28	---	-1.37	Intermediate	No	Static	
AOI 1	S-256	11/29/2016	---	22.46	---	-1.05	Intermediate	No	Static	
AOI 1	S-257	11/29/2016	---	24.08	---	-0.81	Intermediate	No	Static	
AOI 1	S-258	11/29/2016	---	24.45	---	-1.65	Intermediate	No	Static	
AOI 1	S-259	11/29/2016	---	25.11	---	-2.55	Intermediate	No	Static	
AOI 1	S-260	11/29/2016	---	23.74	---	-2.04	Intermediate	No	Static	
AOI 1	S-261	11/29/2016	---	22.75	---	4.66	Intermediate	No	Static	
AOI 1	S-262	11/29/2016	---	19.10	---	0.34	Intermediate	No	Static	
AOI 1	S-263	11/29/2016	---	16.60	---	0.18	Intermediate	No	Static	
AOI 1	S-265	11/29/2016	15.63	15.63	<0.01	15.56	Intermediate	Yes	Static	
AOI 1	S-267	11/29/2016	---	22.99	---	9.88	Intermediate	Yes	Static	
AOI 1	S-268	11/29/2016	---	27.45	---	4.00	Intermediate	Yes	Static	
AOI 1	S-269	11/29/2016	---	20.58	---	1.98	Intermediate	No	Static	
AOI 1	S-270	11/29/2016	---	22.05	---	1.08	Intermediate	No	Static	
AOI 1	S-271	11/29/2016	---	25.07	---	3.41	Intermediate	No	Static	
AOI 1	S-272	11/29/2016	---	24.79	---	3.57	Intermediate	No	Static	
AOI 1	S-273	11/29/2016	---	24.27	---	3.48	Intermediate	No	Static	
AOI 1	S-274	11/29/2016	24.00	24.00	<0.01	3.38	Intermediate	No	Static	
AOI 1	S-275	11/29/2016	---	23.34	---	3.23	Intermediate	No	Static	
AOI 1	S-276	11/29/2016	23.55	24.00	0.45	2.95	Intermediate	No	Static	
AOI 1	S-277	11/29/2016	23.45	24.01	0.56	2.13	Intermediate	No	Static	
AOI 1	S-312	11/29/2016	---	17.86	---	0.02	Shallow/Intermediate	No	Static	
AOI 1	S-388D	11/29/2016	---	25.96	---	0.23	Deep	No	Static	
AOI 1	S-389D	11/29/2016	---	25.85	---	0.45	Deep	No	Static	
AOI 1	S-390D	11/29/2016	---	26.20	---	0.28	Deep	No	Static	
AOI 1	S-391D	11/29/2016	---	29.59	---	1.87	Deep	No	Static	
AOI 1	S-392D	11/29/2016	---	20.01	---	-0.04	Deep	No	Static	
AOI 1	S-396	11/29/2016	---	25.60	---	0.59	Intermediate	No	Static	
AOI 1	S-397	11/29/2016	---	26.33	---	0.27	Intermediate	No	Static	
AOI 1	S-398	11/29/2016	---	25.40	---	0.16	Intermediate	No	Static	
AOI 1	S-399	11/29/2016	---	20.21	---	-0.05	Intermediate	No	Static	
AOI 1	S-400	11/29/2016	---	29.95	---	1.74	Deep	No	Static	
AOI 1	S-401	11/29/2016	---	30.09	---	1.67	Intermediate	No	Static	
AOI 1	S-402	11/29/2016	29.31	29.44	0.13	4.11	Not Classified	No	Static	
AOI 1	S-403	11/29/2016	---	24.18	---	2.64	Not Classified	No	Static	
AOI 1	S-404	11/29/2016	14.52	14.54	0.02	13.99	Not Classified	No	Static	viscous LNAPL
AOI 1	S-405	11/29/2016	NM	NM	NM	NM	Not Classified	No	Static	unable to access well due to ponding of rain water
AOI 1	S-417	11/29/2016	27.21	27.40	0.19	5.04	Not Classified	Yes	Static	
AOI 1	S-418	11/29/2016	---	17.75	---	-0.46	Not Classified	No	Static	
AOI 1	S-419	11/29/2016	---	15.57	---	0.45	Not Classified	No	Static	
AOI 1,11	S-46D	11/29/2016	---	15.40	---	0.31	Deep	No	Static	
AOI 1,11	S-80D	11/29/2016	---	29.24	---	2.50	Deep	No	Static	
AOI 1,11	S-264D	11/29/2016	NM	NM	NM	NM	Deep	No	Static	unable to gauge - Data logger in well
AOI 2	C-HEADER	11/30/2016	---	5.89	---	14.72	Shallow/Intermediate	No	Static	
AOI 2	PGW-MW-8S	11/30/2016	---	30.49	---	4.59	Shallow	No	Static	
AOI 2	PZ-100	11/30/2016	---	17.53	---	0.54	Shallow	No	Static	
AOI 2	PZ-101	11/30/2016	---	2.18	---	14.99	Shallow	No	Static	
AOI 2	River1	11/30/2016	---	13.45	---	NA	Not Classified	No	Static	
AOI 2	River3	11/30/2016	---	13.31	---	NA	Not Classified	No	Static	
AOI 2	RW-100	11/30/2016	19.05	19.26	0.21	1.65	Shallow	Yes	Static	
AOI 2	RW-101	11/30/2016	18.62	19.08	0.46	1.09	Shallow	Yes	Static	
AOI 2	RW-102	11/30/2016	15.35	15.36	0.01	2.12	Shallow	Yes	Static	
AOI 2	RW-103	11/30/2016	18.02	18.77	0.75	1.90	Shallow	Yes	Static	
AOI 2	RW-104	11/30/2016	---	10.04	---	-1.08	Shallow	Yes	Static	
AOI 2	RW-105	11/30/2016	8.95	8.96	0.01	-0.27	Shallow	Yes	Static	
AOI 2	RW-106	11/30/2016	---	8.77	---	0.53	Shallow	Yes	Static	

Table 2
Fourth Quarter 2016 Gauging Data
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

AOI	Well ID	Date	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation (ft NAVD 88)	Well Classification	Recovery Well Yes or No	Static or Pumping	Comments
AOI 2	RW-107	11/30/2016	---	10.25	---	0.30	Shallow	Yes	Static	
AOI 2	RW-108	11/30/2016	---	7.51	---	2.39	Shallow	Yes	Static	
AOI 2	RW-109	11/30/2016	8.25	8.25	<0.01	1.61	Shallow	Yes	Static	
AOI 2	RW-113	11/30/2016	---	9.96	---	0.27	Shallow	Yes	Static	
AOI 2	RW-114	11/30/2016	---	12.75	---	0.26	Shallow	Yes	Static	
AOI 2	RW-115	11/30/2016	---	9.82	---	0.38	Shallow	Yes	Static	
AOI 2	RW-116	11/30/2016	---	10.32	---	0.49	Shallow	Yes	Static	
AOI 2	RW-117	11/30/2016	9.20	9.21	0.01	0.58	Shallow	Yes	Static	
AOI 2	RW-118	11/30/2016	---	11.26	---	0.56	Shallow	Yes	Static	
AOI 2	RW-119	11/30/2016	12.38	12.38	<0.01	0.48	Shallow	Yes	Static	
AOI 2	RW-120	11/30/2016	15.32	15.36	0.04	-1.75	Shallow	Yes	Pumping	
AOI 2	RW-121	11/30/2016	---	14.77	---	0.53	Shallow/Intermediate	Yes	Static	
AOI 2	RW-122	11/30/2016	---	9.51	---	0.73	Shallow	Yes	Static	
AOI 2	RW-123	11/30/2016	---	9.30	---	0.67	Shallow	Yes	Static	
AOI 2	RW-124	11/30/2016	---	8.29	---	0.87	Shallow	Yes	Static	
AOI 2	RW-125	11/30/2016	13.47	13.47	<0.01	0.81	Shallow	Yes	Static	
AOI 2	RW-126	11/30/2016	8.53	8.53	<0.01	0.71	Shallow	Yes	Static	
AOI 2	RW-127	11/30/2016	---	13.46	---	0.44	Shallow	Yes	Static	
AOI 2	RW-128	11/30/2016	8.90	8.90	<0.01	-0.46	Shallow	Yes	Static	
AOI 2	RW-129	11/30/2016	---	9.57	---	0.26	Shallow	Yes	Static	
AOI 2	RW-600	11/30/2016	---	4.29	---	4.76	Shallow/Intermediate	Yes	Static	
AOI 2	RW-601	11/30/2016	---	9.93	---	1.75	Shallow/Intermediate	Yes	Static	
AOI 2	S-48	11/30/2016	20.14	20.25	0.11	1.11	Shallow/Intermediate	No	Static	
AOI 2	S-53	11/30/2016	18.62	18.83	0.21	3.03	Shallow	No	Static	
AOI 2	S-54	11/30/2016	22.19	22.65	0.46	0.69	Intermediate	No	Static	
AOI 2	S-61	11/30/2016	17.10	17.33	0.23	1.17	Shallow/Intermediate	No	Static	
AOI 2	S-62	11/30/2016	---	19.35	---	2.03	Intermediate	No	Static	
AOI 2	S-63	11/30/2016	20.15	20.15	<0.01	1.13	Shallow	No	Static	
AOI 2	S-64	11/30/2016	---	7.65	---	2.91	Shallow/Intermediate	No	Static	
AOI 2	S-65	11/30/2016	10.97	10.98	0.01	-0.35	Shallow/Intermediate	No	Static	
AOI 2	S-70	12/1/2016	NM	NM	NM	NM	Shallow/Intermediate	No	Static	well is blocked - filled with stones
AOI 2	S-71	11/30/2016	---	21.55	---	2.49	Shallow/Intermediate	No	Static	
AOI 2	S-72	11/30/2016	---	27.10	---	3.96	Intermediate	No	Static	
AOI 2	S-91	11/30/2016	---	21.20	---	1.93	Intermediate	No	Static	
AOI 2	S-92	11/30/2016	15.82	15.87	0.05	4.24	Intermediate	No	Static	
AOI 2	S-93	11/30/2016	---	17.06	---	1.19	Intermediate	Yes	Static	
AOI 2	S-105	11/30/2016	NM	NM	NM	NM	Shallow	No	Static	well dry at 11.45 feet
AOI 2	S-107	11/30/2016	---	10.49	---	1.82	Shallow/Intermediate	No	Static	
AOI 2	S-108	11/30/2016	---	6.98	---	3.74	Shallow/Intermediate	No	Static	
AOI 2	S-110	11/30/2016	---	15.45	---	10.22	Shallow/Intermediate	No	Static	
AOI 2	S-130	11/30/2016	NM	NM	NM	NM	Shallow/Intermediate	No	Static	well dry at 19.60 feet
AOI 2	S-131	11/30/2016	---	14.91	---	3.85	Shallow	No	Static	
AOI 2	S-132	11/30/2016	---	18.24	---	2.79	Shallow/Intermediate	No	Static	
AOI 2	S-133	11/30/2016	---	18.73	---	3.29	Shallow/Intermediate	No	Static	
AOI 2	S-134	11/30/2016	---	20.72	---	1.31	Shallow/Intermediate	No	Static	
AOI 2	S-135	11/30/2016	22.00	23.66	1.66	0.96	Shallow	No	Static	
AOI 2	S-136	11/30/2016	---	17.98	---	2.61	Shallow/Intermediate	No	Static	
AOI 2	S-137	11/30/2016	---	16.44	---	3.60	Shallow/Intermediate	No	Static	
AOI 2	S-139	11/30/2016	---	20.32	---	1.14	Shallow/Intermediate	No	Static	
AOI 2	S-140	11/30/2016	---	20.20	---	1.83	Shallow/Intermediate	No	Static	well damaged, need top cut level and resurveyed
AOI 2	S-141	11/30/2016	20.81	20.97	0.16	1.09	Shallow/Intermediate	No	Static	
AOI 2	S-142	11/30/2016	20.36	20.51	0.15	-0.54	Shallow	No	Static	
AOI 2	S-143	11/30/2016	NM	NM	NM	NM	Shallow/Intermediate	No	Static	well blocked at 10 feet
AOI 2	S-150	11/30/2016	NM	NM	NM	NM	Shallow/Intermediate	No	Static	well dry at 18.20 feet
AOI 2	S-152	11/30/2016	---	8.40	---	2.09	Shallow/Intermediate	No	Static	
AOI 2	S-153	11/30/2016	---	9.75	---	0.06	Shallow/Intermediate	No	Static	
AOI 2	S-154	11/30/2016	---	11.19	---	-0.57	Shallow/Intermediate	No	Static	
AOI 2	S-156	11/30/2016	---	18.27	---	2.57	Shallow	No	Static	
AOI 2	S-157	11/30/2016	16.97	16.98	0.01	2.97	Shallow/Intermediate	No	Static	
AOI 2	S-159	11/30/2016	16.86	16.87	0.01	2.01	Shallow/Intermediate	No	Static	
AOI 2	S-165	11/30/2016	---	17.18	---	0.93	Shallow/Intermediate	No	Static	
AOI 2	S-166	11/30/2016	---	17.16	---	1.07	Shallow/Intermediate	No	Static	
AOI 2	S-174	11/30/2016	10.75	11.72	0.97	8.74	Shallow	No	Static	
AOI 2	S-175	11/30/2016	---	18.28	---	1.76	Shallow	No	Static	
AOI 2	S-176	11/30/2016	---	14.68	---	5.45	Intermediate	No	Static	
AOI 2	S-177	11/30/2016	NM	NM	NM	NM	Shallow/Intermediate	No	Static	unable to access well due to ponding of rain water
AOI 2	S-178	11/30/2016	NM	NM	NM	NM	Shallow/Intermediate	No	Static	unable to access well due to ponding of rain water
AOI 2	S-246A	11/30/2016	---	11.27	---	0.49	Shallow/Intermediate	No	Static	
AOI 2	S-247	11/30/2016	---	11.65	---	0.44	Shallow/Intermediate	No	Static	
AOI 2	S-248	11/30/2016	---	10.36	---	0.44	Shallow/Intermediate	No	Static	
AOI 2	S-249	11/30/2016	---	13.23	---	-0.62	Shallow/Intermediate	No	Static	
AOI 2	S-251	11/30/2016	---	17.97	---	1.30	Shallow/Intermediate	Yes	Static	
AOI 2	S-252	11/30/2016	---	18.15	---	1.14	Shallow/Intermediate	Yes	Static	
AOI 2	S-253	11/30/2016	---	19.51	---	1.32	Shallow/Intermediate	Yes	Static	
AOI 2	S-254	11/30/2016	---	19.64	---	1.24	Shallow/Intermediate	Yes	Static	
AOI 2	S-292	11/30/2016	NM	NM	NM	NM	Shallow/Intermediate	No	Static	well dry at 19.49 feet

Table 2
Fourth Quarter 2016 Gauging Data
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

AOI	Well ID	Date	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation (ft NAVD 88)	Well Classification	Recovery Well Yes or No	Static or Pumping	Comments
AOI 2	S-294	11/30/2016	---	30.09	---	4.38	Intermediate	No	Static	
AOI 2	S-295	11/30/2016	---	23.55	---	9.19	Shallow/Intermediate	No	Static	
AOI 2	S-297	11/30/2016	24.69	25.11	0.42	5.24	Shallow/Intermediate	No	Static	well damaged
AOI 2	S-298	11/30/2016	17.19	17.44	0.25	9.75	Shallow/Intermediate	No	Static	
AOI 2	S-299	11/30/2016	---	21.73	---	2.27	Shallow/Intermediate	No	Static	
AOI 2	S-300	11/30/2016	---	21.78	---	3.50	Shallow/Intermediate	No	Static	
AOI 2	S-301	11/30/2016	---	17.29	---	3.12	Shallow/Intermediate	No	Static	
AOI 2	S-302	11/30/2016	22.50	22.68	0.18	1.43	Intermediate	No	Static	
AOI 2	S-303	11/30/2016	---	20.97	---	1.62	Shallow/Intermediate	No	Static	
AOI 2	S-304	11/30/2016	15.66	15.67	0.01	8.52	Shallow/Intermediate	No	Static	
AOI 2	S-305	11/30/2016	---	18.89	---	0.84	Intermediate	No	Static	
AOI 2	S-306	11/30/2016	---	21.71	---	0.76	Intermediate	No	Static	
AOI 2	S-307	11/30/2016	---	16.74	---	1.83	Shallow/Intermediate	No	Static	
AOI 2	S-308	11/30/2016	---	15.29	---	12.82	Shallow/Intermediate	No	Static	
AOI 2	S-309	11/30/2016	---	18.26	---	1.47	Shallow/Intermediate	No	Static	
AOI 2	S-310	11/30/2016	---	12.88	---	5.18	Shallow/Intermediate	No	Static	well damaged
AOI 2	S-311	11/30/2016	---	26.09	---	0.09	Intermediate	No	Static	
AOI 2	S-313	11/30/2016	19.53	19.54	0.01	1.37	Shallow	Yes	Static	
AOI 2	S-314	11/30/2016	---	19.67	---	1.03	Shallow	Yes	Static	
AOI 2	S-315	11/30/2016	19.85	19.95	0.10	0.61	Shallow	Yes	Static	
AOI 2	S-316	11/30/2016	---	18.50	---	2.40	Shallow	Yes	Static	
AOI 2	S-317	11/30/2016	---	19.04	---	1.15	Shallow	Yes	Static	
AOI 2	S-318	11/30/2016	---	22.85	---	0.90	Shallow/Intermediate	No	Static	
AOI 2	S-328	11/30/2016	---	19.93	---	2.04	Shallow/Intermediate	No	Static	
AOI 2	S-333	11/30/2016	---	13.34	---	0.39	Shallow/Intermediate	No	Static	
AOI 2	S-335	11/30/2016	---	11.53	---	-1.43	Shallow/Intermediate	No	Static	well damaged
AOI 2	S-336	11/30/2016	---	10.35	---	1.17	Shallow/Intermediate	No	Static	
AOI 2	S-337	11/30/2016	---	12.59	---	-0.38	Shallow/Intermediate	No	Static	
AOI 2	S-338	11/30/2016	13.61	13.79	0.18	1.89	Shallow/Intermediate	No	Static	
AOI 2	S-346	11/30/2016	18.43	18.65	0.22	1.01	Shallow/Intermediate	No	Static	
AOI 2	S-347	11/30/2016	18.05	18.89	0.84	0.91	Shallow/Intermediate	No	Static	
AOI 2	S-348	11/30/2016	13.32	20.65	7.33	5.39	Shallow/Intermediate	No	Static	
AOI 2	S-349	11/30/2016	16.10	16.40	0.30	2.47	Shallow/Intermediate	No	Static	
AOI 2	S-350	11/30/2016	---	27.26	---	4.22	Shallow/Intermediate	No	Static	
AOI 2	S-351	11/30/2016	---	30.97	---	4.27	Shallow/Intermediate	No	Static	
AOI 2	S-354	11/30/2016	---	25.32	---	2.71	Shallow/Intermediate	No	Static	
AOI 2	S-355	11/30/2016	27.66	27.96	0.30	3.11	Shallow/Intermediate	No	Static	
AOI 2	S-357	11/30/2016	24.22	25.40	1.18	3.67	Shallow/Intermediate	No	Static	
AOI 2	S-359	11/30/2016	---	17.57	---	2.71	Shallow/Intermediate	No	Static	
AOI 2	S-360	11/30/2016	22.85	23.23	0.38	0.87	Shallow/Intermediate	No	Static	
AOI 2	S-361	11/30/2016	---	24.42	---	1.95	Shallow/Intermediate	No	Static	
AOI 2	S-362	11/30/2016	NM	NM	NM	NM	Shallow/Intermediate	No	Static	well blocked at 4.15 feet
AOI 2	S-363	11/30/2016	25.30	25.73	0.43	0.47	Shallow/Intermediate	No	Static	
AOI 2	S-406	11/30/2016	---	10.81	---	1.39	Shallow/Intermediate	No	Static	
AOI 2	S-420	11/30/2016	---	6.68	---	2.58	Shallow	No	Static	
AOI 2	S-422	11/30/2016	---	14.82	---	1.75	Not Classified	No	Static	
AOI 2	S-423	11/30/2016	27.14	27.68	0.54	4.22	Not Classified	No	Static	
AOI 2	SD-1	11/30/2016	---	8.54	---	10.96	Shallow	No	Static	
AOI 2,11	S-72D	11/30/2016	---	33.50	---	1.01	Deep	No	Static	
AOI 2,11	S-294D	11/30/2016	---	33.01	---	1.67	Deep	No	Static	
AOI 2,11	S-302D	11/30/2016	---	25.41	---	-0.81	Deep	No	Static	
AOI 2,11	S-305D	11/30/2016	---	20.55	---	-0.08	Deep	No	Static	
AOI 3	RW-2	11/15/2016	11.96	12.72	0.76	-0.82	Intermediate	Yes	Static	
AOI 4	RW-700	11/15/2016	---	20.30	---	-2.29	Intermediate	Yes	Pumping	top of pump
AOI 4	RW-701	11/15/2016	---	19.60	---	-1.33	Intermediate	Yes	Pumping	top of pump
AOI 4	RW-702	11/15/2016	---	31.55	---	-10.60	Intermediate	Yes	Pumping	top of pump
AOI 4	RW-703	11/15/2016	---	29.00	---	-8.38	Intermediate	Yes	Pumping	top of pump
AOI 4	RW-704	11/15/2016	---	21.90	---	-1.67	Intermediate	Yes	Pumping	top of pump
AOI 4	RW-705	11/15/2016	---	15.97	---	-0.05	Intermediate	Yes	Static	
AOI 4	RW-706	11/15/2016	---	16.01	---	-0.12	Intermediate	Yes	Static	
AOI 4	RW-707	11/15/2016	---	16.42	---	-0.13	Intermediate	Yes	Static	
AOI 4	RW-708	11/15/2016	---	16.30	---	-0.81	Intermediate	Yes	Pumping	top of pump
AOI 4	RW-709	11/15/2016	---	15.41	---	-0.11	Intermediate	Yes	Static	
AOI 4	RW-710	11/15/2016	---	16.27	---	-0.39	Intermediate	Yes	Static	
AOI 4	RW-711	11/15/2016	---	15.58	---	-0.09	Intermediate	Yes	Static	
AOI 4	RW-712	11/15/2016	---	15.70	---	-0.14	Intermediate	Yes	Static	
AOI 4	RW-713	11/15/2016	---	15.14	---	-0.12	Intermediate	Yes	Static	
AOI 4	RW-714	11/15/2016	---	16.00	---	-0.79	Intermediate	Yes	Pumping	top of pump
AOI 4	RW-715	11/15/2016	---	15.47	---	-0.10	Intermediate	Yes	Static	
AOI 4	RW-716	11/15/2016	---	15.64	---	-0.10	Intermediate	Yes	Static	
AOI 4	RW-717	11/15/2016	---	15.68	---	-0.07	Intermediate	Yes	Static	
AOI 4	S-29	11/15/2016	21.08	23.27	2.19	1.92	Intermediate	No	Static	
AOI 4	S-30	11/15/2016	21.91	29.32	7.41	0.24	Intermediate	Yes	Static	
AOI 4	S-34	11/15/2016	---	20.85	---	0.04	Shallow	No	Static	
AOI 4	S-35	11/15/2016	---	21.00	---	-0.06	Shallow	No	Static	
AOI 4	S-36	11/15/2016	---	24.13	---	0.10	Shallow	No	Static	

Table 2
Fourth Quarter 2016 Gauging Data
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

AOI	Well ID	Date	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation (ft NAVD 88)	Well Classification	Recovery Well Yes or No	Static or Pumping	Comments
AOI 4	S-38	11/15/2016	---	18.94	---	0.01	Shallow	No	Static	
AOI 4	S-39	11/15/2016	---	22.61	---	0.27	Intermediate	No	Static	
AOI 4	S-39D	12/1/2016	---	25.22	---	-0.71	Not Classified	No	Static	
AOI 4	S-40	12/1/2016	---	24.72	---	-0.26	Shallow	No	Static	
AOI 4	S-96	12/1/2016	---	19.71	---	0.06	Shallow	No	Static	
AOI 4	S-102	11/15/2016	---	17.92	---	0.30	Shallow	No	Static	
AOI 4	S-103	11/15/2016	---	25.48	---	0.63	Shallow	No	Static	
AOI 4	S-104	11/15/2016	17.17	18.56	1.39	1.22	Shallow	No	Static	
AOI 4	S-119	11/15/2016	---	26.49	---	0.11	Intermediate	No	Static	
AOI 4	S-120	12/1/2016	---	19.58	---	0.24	Intermediate	No	Static	
AOI 4	S-121	12/1/2016	NM	NM	NM	NM	Intermediate	No	Static	well dry at 3.3 feet
AOI 4	S-122	11/15/2016	---	25.53	---	0.18	Intermediate	No	Static	
AOI 4	S-216	11/15/2016	---	15.35	---	0.41	Intermediate	No	Static	
AOI 4	S-218	11/15/2016	---	25.37	---	0.37	Intermediate	No	Static	
AOI 4	S-219	11/15/2016	---	22.90	---	0.19	Intermediate	No	Static	
AOI 4	S-220	11/15/2016	20.54	21.40	0.86	0.14	Intermediate	No	Static	
AOI 4	S-221	11/15/2016	22.77	24.94	2.17	-0.16	Intermediate	No	Static	
AOI 4	S-225	11/15/2016	---	16.75	---	-1.76	Intermediate	No	Static	
AOI 4	S-233	11/15/2016	21.17	23.03	1.86	2.85	Intermediate	No	Static	
AOI 4	S-234	11/15/2016	NM	NM	NM	NM	Intermediate	No	Static	
AOI 4	S-236	11/15/2016	22.86	24.77	1.91	-0.23	Intermediate	No	Static	
AOI 4	S-237	11/15/2016	22.65	23.75	1.10	-0.03	Intermediate	No	Static	
AOI 4	S-240	11/15/2016	23.69	26.14	2.45	-0.26	Intermediate	No	Static	
AOI 4	S-241	11/15/2016	25.82	29.07	3.25	-0.09	Intermediate	No	Static	
AOI 4	S-245	11/15/2016	---	22.15	---	0.06	Intermediate	No	Static	
AOI 4	S-246	11/15/2016	---	21.53	---	0.03	Intermediate	No	Static	
AOI 4	S-365	11/15/2016	20.98	21.07	0.09	-0.09	Shallow/Intermediate	No	Static	
AOI 4	S-366	11/15/2016	---	21.96	---	0.30	Shallow/Intermediate	No	Static	
AOI 4	S-368	11/15/2016	17.15	19.40	2.25	0.61	Shallow/Intermediate	No	Static	
AOI 4	S-369	11/15/2016	---	29.94	---	-0.52	Shallow/Intermediate	No	Static	
AOI 4	S-370	11/15/2016	---	12.38	---	-0.32	Shallow/Intermediate	No	Static	
AOI 4	S-373	11/15/2016	21.05	21.12	0.07	-0.29	Not Classified	No	Static	
AOI 4	S-380	12/1/2016	---	21.20	---	0.12	Shallow/Intermediate	No	Static	
AOI 4	S-416	12/1/2016	---	18.09	---	1.09	Not Classified	No	Static	
AOI 4,11	S-59D	11/15/2016	---	16.73	---	0.40	Deep	No	Static	
AOI 4,11	S-119D	11/15/2016	---	25.30	---	-0.20	Deep	No	Static	
AOI 5	RWBH-1	11/15/2016	7.30	7.30	<0.01	-1.96	Shallow	Yes	Static	
AOI 5	RWBH-2	11/15/2016	4.19	7.08	2.89	-0.33	Shallow	Yes	Static	
AOI 6	B-92	12/1/2016	---	5.94	---	4.29	Shallow	No	Static	
AOI 6	B-123	12/1/2016	---	4.64	---	6.12	Shallow	No	Static	
AOI 6	B-124	12/1/2016	5.77	6.43	0.66	3.08	Shallow	Yes	Static	
AOI 6	B-125	12/1/2016	---	5.24	---	3.27	Shallow	No	Static	
AOI 6	B-126	12/1/2016	---	5.41	---	3.10	Shallow	No	Static	
AOI 6	B-132	12/1/2016	4.39	4.46	0.07	2.47	Shallow	No	Static	
AOI 6	B-133	12/1/2016	---	4.96	---	2.37	Shallow	Yes	Static	
AOI 6	B-134	12/1/2016	---	4.42	---	2.10	Shallow	Yes	Static	
AOI 6	B-135	12/1/2016	4.42	4.53	0.11	1.95	Shallow	No	Static	
AOI 6	B-136	12/1/2016	4.56	4.57	0.01	4.59	Shallow	Yes	Static	
AOI 6	B-137	12/1/2016	4.66	5.29	0.63	3.99	Shallow	Yes	Static	
AOI 6	B-138	12/1/2016	---	4.57	---	4.76	Shallow	Yes	Static	
AOI 6	B-139	12/1/2016	NM	NM	NM	NM	Shallow	Yes	Static	well destroyed
AOI 6	B-141	12/1/2016	---	2.82	---	5.87	Shallow	No	Static	top of well is damaged
AOI 6	B-142	12/1/2016	6.85	7.76	0.91	2.77	Shallow	Yes	Static	
AOI 6	B-143	12/1/2016	4.63	5.50	0.87	4.23	Shallow	Yes	Static	
AOI 6	B-144	12/1/2016	---	5.06	---	3.96	Shallow	No	Static	
AOI 6	B-145	12/1/2016	---	4.65	---	5.16	Shallow	No	Static	
AOI 6	B-147	12/1/2016	5.55	5.57	0.02	3.35	Shallow	Yes	Static	
AOI 6	B-148	12/1/2016	4.91	5.77	0.86	2.20	Shallow	No	Static	
AOI 6	B-149	12/1/2016	2.72	3.33	0.61	4.94	Shallow	No	Static	
AOI 6	B-150	12/1/2016	2.85	5.47	2.62	4.60	Shallow	No	Static	
AOI 6	B-154	12/1/2016	---	3.00	---	5.68	Shallow	No	Static	top casing is damaged
AOI 6	B-155	12/1/2016	---	4.95	---	3.59	Shallow	No	Static	
AOI 6	B-156	12/1/2016	---	5.92	---	2.94	Shallow	No	Static	
AOI 6	B-161	12/1/2016	4.76	5.07	0.31	3.48	Shallow	No	Static	
AOI 6	B-163	12/1/2016	---	0.96	---	6.49	Shallow	No	Static	
AOI 6	RW-9	12/1/2016	5.60	6.47	0.87	3.00	Shallow	Yes	Static	
AOI 6	SUMP-1	12/1/2016	5.50	5.56	0.06	5.19	Shallow	Yes	Static	
AOI 6	U-1	12/1/2016	NM	NM	NM	NM	Shallow	No	Static	well dry at 7.42 feet
AOI 6	U-2	12/1/2016	---	6.19	---	3.20	Shallow	No	Static	
AOI 6	U-3	12/1/2016	6.80	7.78	0.98	2.82	Shallow	No	Static	
AOI 6	U-4	12/1/2016	---	3.43	---	5.79	Shallow	No	Static	
AOI 6	U-5	12/1/2016	---	5.98	---	3.81	Shallow	No	Static	
AOI 6	WP9-3	12/1/2016	1.48	1.52	0.04	4.67	Shallow	No	Static	
AOI 6	WP9-4	12/1/2016	3.53	4.01	0.48	5.42	Shallow	No	Static	
AOI 7	C-62	11/18/2016	---	5.18	---	6.22	Shallow	No	Static	
AOI 7	C-64	11/18/2016	9.73	9.89	0.16	-1.61	Shallow	No	Static	

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AOI 7	C-65	11/18/2016	6.86	7.38	0.52	3.94	Shallow	No	Static	
AOI 7	C-65D	11/18/2016	---	5.10	---	4.52	Deep	No	Static	
AOI 7	C-97	11/18/2016	16.80	17.74	0.94	-6.38	Shallow	No	Static	
AOI 7	C-127	11/18/2016	---	9.33	---	0.47	Shallow	No	Static	
AOI 7	C-142	11/18/2016	---	10.16	---	1.19	Shallow/Intermediate	No	Static	
AOI 7	C-143	11/18/2016	---	10.69	---	-4.24	Shallow/Intermediate	No	Static	
AOI 7	C-145	11/18/2016	---	6.40	---	0.52	Shallow	No	Static	
AOI 7	C-146	11/18/2016	11.58	11.65	0.07	-4.85	Shallow	No	Static	
AOI 7	C-147	11/18/2016	12.22	12.23	0.01	-5.35	Shallow	No	Static	
AOI 7	C-148	11/18/2016	---	14.71	---	-5.37	Shallow	No	Static	
AOI 7	C-150	11/18/2016	14.12	16.21	2.09	-6.26	Shallow	No	Static	
AOI 7	C-151	11/18/2016	NM	NM	NM	NM	Shallow	No	Static	well dry or blocked at 2.60 feet
AOI 7	C-152	11/18/2016	---	11.28	---	-1.90	Shallow	No	Static	
AOI 7	C-153	11/18/2016	14.90	15.09	0.19	-6.66	Shallow	No	Static	
AOI 7	C-154	11/18/2016	12.04	12.05	0.01	-4.15	Shallow	No	Static	
AOI 7	C-155	11/18/2016	---	7.33	---	1.84	Shallow	No	Static	
AOI 7	C-160	11/18/2016	NM	NM	NM	NM	Shallow	No	Static	well dry at 9.90 feet
AOI 7	C-161	11/18/2016	10.99	11.03	0.04	-1.93	Shallow	No	Static	
AOI 7	C-162	11/18/2016	---	11.21	---	-2.71	Shallow	No	Static	
AOI 7	C-166	11/18/2016	NM	NM	NM	NM	Shallow	No	Static	well dry at 7.05 feet
AOI 7	C-167	11/18/2016	NM	NM	NM	NM	Shallow	No	Static	well dry at 12.20 feet
AOI 7	C-168	11/18/2016	5.55	5.74	0.19	1.83	Shallow	No	Static	well damaged
AOI 7	C-169	11/18/2016	13.44	14.58	1.14	-6.62	Shallow	No	Static	
AOI 7	RW-801	11/18/2016	---	19.00	---	-12.73	Shallow	Yes	Pumping	top of pump
AOI 7	RW-802	11/18/2016	---	20.00	---	-14.30	Shallow	Yes	Pumping	top of pump
AOI 7	RW-803	11/18/2016	---	22.10	---	-16.32	Shallow	Yes	Pumping	top of pump
AOI 7	RW-804	11/18/2016	---	20.05	---	-14.27	Shallow	Yes	Pumping	top of pump
AOI 7	RW-805	11/18/2016	---	17.25	---	-11.50	Shallow	Yes	Pumping	top of pump
AOI 7	RW-806	11/18/2016	---	20.25	---	-14.84	Shallow	Yes	Pumping	top of pump
AOI 7	RW-807	11/18/2016	---	19.10	---	-12.26	Shallow	Yes	Pumping	top of pump
AOI 7	RW-808	11/18/2016	---	18.10	---	-12.02	Shallow	Yes	Pumping	top of pump
AOI 7	RW-809	11/18/2016	---	19.90	---	-13.35	Shallow	Yes	Pumping	top of pump
AOI 7	RW-810	11/18/2016	---	16.15	---	-9.71	Shallow	Yes	Pumping	
AOI 7	WP14-2	11/18/2016	NM	NM	NM	NM	Shallow	No	Static	well dry at 10.10 feet
AOI 7,11	C-144D	11/18/2016	---	14.93	---	-5.97	Deep	No	Static	
AOI 8	N-3	12/1/2016	---	14.50	---	12.16	Shallow	No	Static	
AOI 8	N-11	12/1/2016	---	19.35	---	10.39	Intermediate	No	Static	
AOI 8	N-98	12/1/2016	---	24.23	---	10.30	Intermediate	No	Static	
AOI 8	N-137	12/1/2016	18.09	18.23	0.14	7.48	Intermediate	No	Static	changed out wick
AOI 8	N-138	12/1/2016	27.76	28.06	0.30	7.47	Intermediate	No	Static	changed out wick
AOI 8	N-139	12/1/2016	27.53	27.82	0.29	7.41	Intermediate	No	Static	changed out wick
AOI 8	N-140	12/1/2016	---	17.69	---	9.05	Shallow	No	Static	
AOI 8	N-141	12/1/2016	---	13.85	---	10.54	Shallow	No	Static	
AOI 8	N-142	12/1/2016	27.30	27.30	<0.01	7.27	Shallow	No	Static	
AOI 8	N-143	12/1/2016	---	20.45	---	12.57	Shallow	No	Static	
AOI 8	N-144	12/1/2016	---	26.89	---	7.39	Shallow	No	Static	
AOI 8	N-145	12/1/2016	---	18.85	---	7.14	Shallow	No	Static	
AOI 8	N-146	12/1/2016	17.49	18.01	0.52	8.77	Shallow	No	Static	viscous LNAPL
AOI 8	River2	12/1/2016	---	9.30	---	NA	Not Classified	No	Static	
AOI 8	RW-200	12/1/2016	---	6.91	---	5.11	Intermediate	Yes	Static	
AOI 8	RW-201	12/1/2016	23.81	24.14	0.33	8.13	Intermediate	Yes	Static	
AOI 8	RW-202	12/1/2016	---	21.28	---	8.23	Intermediate	Yes	Static	
AOI 8	RW-203	12/1/2016	23.54	23.70	0.16	7.54	Intermediate	Yes	Static	
AOI 8	RW-204	12/1/2016	20.12	21.75	1.63	8.29	Intermediate	Yes	Static	
AOI 8	RW-205	12/1/2016	20.11	22.78	2.67	9.32	Intermediate	Yes	Static	viscous LNAPL
AOI 8	RW-206	12/1/2016	22.09	24.11	2.02	8.63	Intermediate	Yes	Static	viscous LNAPL
AOI 8	RW-300	12/1/2016	15.70	15.84	0.14	5.92	Intermediate	Yes	Static	
AOI 8	RW-301	12/1/2016	---	12.82	---	9.59	Intermediate	Yes	Static	
AOI 8	RW-302	12/1/2016	---	14.04	---	10.05	Intermediate	Yes	Static	
AOI 8	RW-303	12/1/2016	---	14.90	---	10.08	Intermediate	Yes	Static	
AOI 8	RW-304	12/1/2016	---	14.55	---	10.73	Intermediate	Yes	Static	
AOI 8	RW-305	12/1/2016	---	15.44	---	9.83	Intermediate	Yes	Static	
AOI 8	RW-306	12/1/2016	13.54	13.62	0.08	10.03	Intermediate	Yes	Static	viscous LNAPL
AOI 8	RW-307	12/1/2016	---	15.12	---	8.14	Intermediate	Yes	Static	
AOI 8	RW-308	12/1/2016	---	17.14	---	8.47	Intermediate	Yes	Static	
AOI 8	RW-309	12/1/2016	---	15.99	---	9.24	Intermediate	Yes	Static	
AOI 8	RW-500	12/1/2016	---	2.30	---	5.26	Intermediate	Yes	Static	
AOI 8	RW-501	12/1/2016	---	6.10	---	3.69	Intermediate	Yes	Static	
AOI 8	RW-502	12/1/2016	9.21	9.70	0.49	3.22	Intermediate	Yes	Static	
AOI 8,11	N-4	12/1/2016	---	18.89	---	7.47	Deep	No	Static	
BELMONT	MW-26	11/29/2016	22.90	24.30	1.40	3.54	Shallow	No	Static	
BELMONT	MW-27	11/29/2016	24.35	25.70	1.35	4.03	Shallow	No	Static	
BELMONT	MW-28	11/29/2016	---	25.04	---	3.74	Intermediate	No	Static	
BELMONT	MW-29	11/29/2016	NM	NM	NM	NM	Intermediate	No	Static	unable to access well due to ponding of rain water
BELMONT	MW-30	11/29/2016	---	27.49	---	4.21	Shallow	No	Static	
BELMONT	MW-31	11/29/2016	---	25.66	---	4.90	Shallow	No	Static	

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BELMONT	MW-32	11/29/2016	---	25.47	---	3.67	Intermediate	No	Static	
BELMONT	MW-33	11/29/2016	---	26.40	---	3.59	Shallow	No	Static	
BELMONT	MW-35	11/29/2016	---	27.30	---	3.35	Intermediate	No	Static	
BELMONT	MW-36	11/29/2016	---	28.62	---	3.95	Intermediate	No	Static	
BELMONT	MW-37	11/29/2016	---	27.70	---	4.22	Intermediate	No	Static	
BELMONT	MW-38	11/29/2016	---	23.76	---	3.86	Intermediate	No	Static	
BELMONT	MW-39	11/29/2016	---	23.75	---	3.80	Intermediate	No	Static	
BELMONT	MW-40	11/29/2016	24.11	24.52	0.41	3.69	Intermediate	No	Static	
BELMONT	MW-41	11/29/2016	---	22.92	---	4.43	Intermediate	No	Static	
BELMONT	MW-43	11/29/2016	NM	NM	NM	NM	Intermediate	No	Static	unable to access well due to ponding of rain water
BELMONT	MW-44	11/29/2016	25.92	26.17	0.25	3.33	Intermediate	No	Static	
BELMONT	OW-2	11/29/2016	---	27.71	---	3.96	Shallow	No	Static	
BELMONT	OW-12	11/29/2016	---	26.19	---	4.03	Shallow	No	Static	
BELMONT	OW-13	11/29/2016	---	28.24	---	3.96	Shallow	No	Static	
BELMONT	OW-14	11/29/2016	---	28.28	---	3.93	Shallow	No	Static	
BELMONT	OW-16	11/29/2016	27.49	27.49	<0.01	3.90	Shallow	No	Static	
BELMONT	OW-17	11/29/2016	---	26.47	---	3.52	Shallow	No	Static	
BELMONT	OW-18	11/29/2016	---	26.73	---	4.11	Intermediate	No	Static	
BELMONT	OW-19	11/29/2016	NM	NM	NM	NM	Intermediate	No	Static	no access- truck parked on well
BELMONT	OW-20	11/29/2016	---	28.05	---	3.82	Shallow	No	Static	
BELMONT	PZ-400	11/29/2016	---	24.48	---	3.62	Shallow	No	Static	
BELMONT	RW-1	11/29/2016	---	25.92	---	3.63	Intermediate	Yes	Static	
BELMONT	RW-4	11/29/2016	27.93	28.18	0.25	2.47	Intermediate	Yes	Static	
BELMONT	RW-6	11/29/2016	---	27.09	---	3.97	Intermediate	Yes	Static	
BELMONT	RW-7	11/29/2016	---	24.39	---	3.82	Intermediate	Yes	Static	
BELMONT	RW-15	11/29/2016	---	27.10	---	2.95	Intermediate	Yes	Static	
BELMONT	RW-21	11/29/2016	---	25.09	---	3.77	Shallow	Yes	Static	
BELMONT	RW-22	11/29/2016	---	23.21	---	3.82	Shallow	Yes	Static	
BELMONT	RW-23	11/29/2016	26.20	26.70	0.50	0.81	Intermediate	Yes	Static	
BELMONT	RW-24	11/29/2016	26.00	28.10	2.10	0.68	Intermediate	Yes	Static	
BELMONT	RW-25	11/29/2016	26.20	26.83	0.63	3.80	Intermediate	Yes	Static	
BELMONT	RW-26	11/29/2016	---	25.97	---	3.24	Intermediate	Yes	Static	
BELMONT	RW-27	11/29/2016	---	26.52	---	3.19	Intermediate	Yes	Static	
BELMONT	RW-28	11/29/2016	---	26.31	---	3.43	Intermediate	Yes	Static	
BELMONT	RW-29	11/29/2016	---	26.12	---	3.32	Intermediate	Yes	Static	
BELMONT	RW-30	11/29/2016	---	25.97	---	3.42	Intermediate	Yes	Static	
BELMONT	RW-31	11/29/2016	---	25.92	---	3.46	Intermediate	Yes	Static	
BELMONT	RW-32	11/29/2016	---	15.93	---	13.12	Intermediate	Yes	Static	
BELMONT	RW-400	11/29/2016	---	24.53	---	3.66	Intermediate	Yes	Static	
BELMONT	S-74	11/29/2016	---	25.98	---	4.06	Shallow	No	Static	
BELMONT	S-75	11/29/2016	---	27.63	---	3.60	Shallow	No	Static	
BELMONT	S-76	11/29/2016	27.30	28.10	0.80	3.57	Shallow	No	Static	
BELMONT	S-330	11/29/2016	---	25.95	---	3.90	Intermediate	No	Static	
BELMONT	S-331	11/29/2016	---	27.60	---	3.68	Intermediate	No	Static	
BELMONT	S-332	11/29/2016	---	26.47	---	3.78	Intermediate	No	Static	
BELMONT	S-393D	11/29/2016	---	30.06	---	2.00	Deep	No	Static	
BELMONT	S-394	11/29/2016	---	30.32	---	1.80	Deep	No	Static	
BELMONT	S-395	11/29/2016	---	27.96	---	4.26	Shallow	No	Static	
BELMONT	TW-3	11/29/2016	---	28.26	---	3.85	Shallow	No	Static	
BELMONT	TW-5	11/29/2016	---	28.01	---	4.06	Shallow	No	Static	
BELMONT	TW-8	11/29/2016	---	26.32	---	3.82	Shallow	No	Static	
BELMONT	TW-9	11/29/2016	---	25.73	---	6.37	Shallow	No	Static	
BELMONT	TW-10	11/29/2016	NM	NM	NM	NM	Shallow	No	Static	no access-well lid damaged
BELMONT	TW-11	11/29/2016	---	28.40	---	4.00	Shallow	No	Static	

Notes:
For product thicknesses <0.01 ft, the corrected groundwater elevation was calculated using 0.01 foot.
LNAPL = Light non-aqueous phase liquid
ft = Feet
ft btoc = Feet below top of casing
NAVD 88 = North American Vertical Datum of 1988
--- = LNAPL not present
NM = Field reading not measured and/or corrected groundwater elevation not calculated due to lack of surveyed reference elevation
NA = Not Accessible, Not Applicable, or Not Available
Not Classified = Well classification not available

APPENDIX 1
Remediation System Recovery Data

Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC
Groundwater and LNAPL Recovery Systems Operational Data
AOI 1: Belmont Terminal

Second Half 2016

Date	Total Flow (gallons)	Period Total Flow (gallons)	Average Flow Rate (gpm)	LNAPL Recovered in Period (gallons)	Total LNAPL Recovered (gallons)
8-Jul-16	89,679,168	111,122	11.02	32.2	252,811
14-Jul-16	89,776,289	97,121	11.24	0.0	252,811
20-Jul-16	89,875,666	99,377	11.50	72.7	252,883
28-Jul-16	90,024,663	148,997	12.93	56.8	252,940
5-Aug-16	90,174,156	149,493	12.98	8.1	252,948
10-Aug-16	90,240,484	66,328	9.21	10.3	252,959
19-Aug-16	90,265,449	24,965	1.93	0.0	252,959
25-Aug-16	90,265,492	43	0.00	0.0	252,959
29-Aug-16	90,265,499	7	0.00	0.0	252,959
8-Sep-16	90,265,499	0	0.00	0.0	252,959
15-Sep-16	90,265,500	1	0.00	0.0	252,959
23-Sep-16	90,265,500	0	0.00	0.0	252,959
30-Sep-16	90,293,163	27,663	2.74	0.0	252,959
6-Oct-16	90,471,742	178,579	20.67	8.2	252,967
10-Oct-16	90,514,315	42,573	7.39	0.0	252,967
17-Oct-16	90,588,500	74,185	7.36	16.3	252,983
28-Oct-16	90,698,291	109,791	6.93	0.0	252,983
3-Nov-16	90,756,178	57,887	6.70	8.1	252,991
11-Nov-16	90,849,952	93,774	8.14	8.2	252,999
17-Nov-16	90,916,040	66,088	7.65	8.1	253,007
23-Nov-16	90,979,612	63,572	7.36	0.0	253,007
29-Nov-16	91,039,920	60,308	6.98	0.0	253,007
8-Dec-16	91,134,355	94,435	7.29	0.0	253,007
16-Dec-16	91,218,390	84,035	7.29	0.0	253,007
21-Dec-16	91,276,078	57,688	8.01	0.0	253,007
26-Dec-16	91,328,125	52,047	7.23	0.0	253,007

Notes:

LNAPL: Light Non-Aqueous Phase Liquid

The Belmont Terminal systems consist of the Loading Rack system (RW-4 and RW-21 through RW-25) and the Frontage Road system (RW-15 and RW-26 through RW-32). Each system has a dedicated totalizer.

On August 30, 2012, the Frontage Road system was turned off and remained off for the reporting period. The system will remain offline unless there is a significant increase of LNAPL in the recovery wells. The recovery wells were routinely gauged, and no product was detected during the second half of 2016.

The Belmont Terminal system was operational during the reporting period with the following exceptions:

From August 19 through September 29, RW-23 and RW-24 were inoperable. The flow for this period was inaqequate to accurately record flow. System issues were caused by a malfunctioning programmable logic controller (PLC) which was removed for repairs. On September 29, a new PLC was installed and RW-23 and RW-24 were returned to service.

RW-4 was inoperable from August 8 through September 23. A new product pump was installed in RW-4 on September 23 and RW-4 was operational.

On November 3, the product pump was removed from RW-4 for repairs. On November 11, RW-4 was returned to service.

On October 6, RW-4 was turned off pending repairs to a level sensor and returned to service on November 11.

Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC
AOI 1: Shunk Street Sewer Ventilation System and Biofilter
Organic Vapor Concentrations

Second Half 2016

Date	Flow Rate (CFM)	Sewer Air PID (ppm)	Total Flow PID (ppm)	Treatment Cell Effluent PID (ppm)			Treatment Cell Media Temperature (°F)		
				Cell #1	Cell #2	Cell #3	Cell #1	Cell #2	Cell #3
8-Jul-16	4200	1.0	1.0	0.00	0.00	0.00	86	86	86
14-Jul-16	4200	1.0	1.0	0.00	0.00	0.00	78	78	78
20-Jul-16	4200	1.0	1.0	0.00	0.00	0.00	80	80	80
28-Jul-16	4200	0.0	0.0	0.00	0.00	0.00	85	85	85
5-Aug-16	4075	0.0	0.0	0.00	0.00	0.00	86	86	86
10-Aug-16	4100	1.0	1.0	0.00	0.00	0.00	86	86	86
19-Aug-16	3800	1.0	1.0	0.00	0.00	0.00	86	86	86
25-Aug-16	4000	0.0	0.0	0.00	0.00	0.00	84	84	84
29-Aug-16	4000	0.0	0.0	0.00	0.00	0.00	82	82	82
8-Sep-16	4000	0.0	0.0	0.00	0.00	0.00	90	90	90
15-Sep-16	3700	0.0	0.0	0.00	0.00	0.00	80	80	80
23-Sep-16	3700	1.6	1.6	0.00	0.00	0.00	83	83	83
30-Sep-16	3770	0.0	0.0	0.00	0.00	0.00	72	72	72
6-Oct-16	3770	1.0	1.0	0.00	0.00	0.00	82	82	82
10-Oct-16	3700	0.0	0.0	0.00	0.00	0.00	82	82	82
17-Oct-16	3700	1.0	1.0	0.00	0.00	0.00	82	82	82
28-Oct-16	3700	0.0	0.0	0.00	0.00	0.00	82	82	82
3-Nov-16	3700	0.0	0.0	0.00	0.00	0.00	70	70	70
11-Nov-16	3700	0.0	0.0	0.00	0.00	0.00	72	72	72
17-Nov-16	3700	0.0	0.0	0.00	0.00	0.00	70	70	70
23-Nov-16	3700	0.0	0.0	0.00	0.00	0.00	66	66	66
29-Nov-16	3700	0.0	0.0	0.00	0.00	0.00	65	65	65
8-Dec-16	3700	0.0	0.0	0.00	0.00	0.00	60	60	60
16-Dec-16	3700	1.0	1.0	0.00	0.00	0.00	58	58	58
21-Dec-16	3700	0.0	0.0	0.00	0.00	0.00	58	58	58
26-Dec-16	3700	0.0	0.0	0.00	0.00	0.00	58	58	58

Notes:
CFM = cubic feet per minute
PID = Photoionization Detector
ppm = parts per million
°F = Degrees Fahrenheit
Vapor concentrations are collected using a MultiRAE Lite Photoionization Detector (PID).
The Sewer Air reading is collected from the Shunk Street sewer air stream only.
The air stripper was taken offline on June 17, 2004; therefore, the Total Flow is equal to the Sewer Air reading.
The system was operational during the reporting period.

Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC
AOI 1: Shunk Street Sewer Biofilter System
pH Data

Second Half 2016

Date	Leachate pH	Biofilter Treatment Cell - Soil pH		
		Cell 1	Cell 2	Cell 3
28-Jul-16	NA	NA	NA	NA
5-Aug-16	NA	NA	NA	NA
30-Sep-16	NA	6.22	6.06	5.97
28-Oct-16	NA	NA	NA	NA
17-Nov-16	NA	NA	NA	NA
21-Dec-16	NA	6.12	5.88	6.03

NOTES:

Leachate pH readings are collected on a monthly basis.

Media pH readings are collected on a quarterly basis.

NA = No leachate available to record pH.

The system was operational for the reporting period.

Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC
Total Fluids Recovery System Operational Data
AOI 1: 26th Street Sewer Area

Second Half 2016

Date	Total Flow (gallons)	Period Total Flow (gallons)	Calculated System Flow Rate (gpm)	LNAPL Recovered in Period (gallons)	Total LNAPL Recovered (gallons)
8-Jul-16	63,952,927	397,008	25.06	NA	9,148.60
12-Jul-16	63,952,927	0	0.00	NA	9,148.60
20-Jul-16	63,952,927	0	0.00	NA	9,148.60
27-Jul-16	63,952,927	0	0.00	NA	9,148.60
4-Aug-16	64,276,870	323,942	28.12	NA	9,148.60
9-Aug-16	64,542,982	266,112	36.96	NA	9,148.60
18-Aug-16	65,022,905	479,923	37.03	NA	9,148.60
24-Aug-16	65,327,465	304,560	35.25	NA	9,148.60
2-Sep-16	65,668,313	340,848	26.30	NA	9,148.60
9-Sep-16	65,953,476	285,163	28.29	NA	9,148.60
14-Sep-16	66,191,724	238,248	33.09	NA	9,148.60
21-Sep-16	66,580,409	388,685	38.56	NA	9,148.60
30-Sep-16	66,923,330	342,922	26.46	NA	9,148.60
7-Oct-16	67,132,994	209,664	20.80	NA	9,148.60
10-Oct-16	67,237,538	104,544	24.20	NA	9,148.60
21-Oct-16	67,622,292	384,754	24.29	NA	9,148.60
26-Oct-16	67,807,332	185,040	25.70	NA	9,148.60
2-Nov-16	68,056,510	249,178	24.72	NA	9,148.60
9-Nov-16	68,538,132	481,622	47.78	NA	9,148.60
17-Nov-16	68,851,246	313,114	27.18	NA	9,148.60
22-Nov-16	69,026,062	174,816	24.28	NA	9,148.60
29-Nov-16	69,337,332	311,270	30.88	NA	9,148.60
6-Dec-16	69,581,268	243,936	24.20	NA	9,148.60
13-Dec-16	69,829,841	248,573	24.66	NA	9,148.60
20-Dec-16	70,096,154	266,314	26.42	NA	9,148.60
26-Dec-16	70,336,346	240,192	27.80	NA	9,148.60

Notes:

LNAPL: Light Non-Aqueous Phase Liquid

The Total Flow and Total LNAPL Recovered includes historical totals from former recovery wells RW-400 through RW-406.

The 26th Street Sewer Area (26th Street North) system consists of 20 total fluids recovery wells [15 wells on-site along 26th Street (S-180, S-181, S-182, S-183, S-184, S-185, S-186, S-187, S-188, S-189, S-190, S-191, S-192, RW-400 & RW-402) and five wells offsite on CSX property (S-193, S-194, S-265, S-267, & S-268)] which discharge directly to a process sewer; therefore, the volume of recoverable LNAPL cannot be quantified.

The 26th Street Sewer Area system was restarted on October 12, 2015. The system was operational for the reporting period with the following exceptions:

On July 8, the system was down due to compressor overheating.

On July 12, S-186 pump was removed for cleaning.

On July 27, S-186 was reinstalled and the air compressor was repaired.

On August 9, S-188 was not operational.

On August 18, the system was not operational due to low oil level in the air compressor.

On August 24, S-189 and S-190 were not operational.

On September 21, S-189 and S-191 were not operational.

From September 30 through October 21, RW-400 was not operational due to repairs pending replacement parts.

On October 5, S-186 and S-187 were not operational.

From October 5 through October 7, S-192 was not operational.

On November 2, S-186 and S-187 were not operational.

On November 9, the pumps were removed, cleaned and reinstalled.

On November 17, RW-400 was not operational.

On December 13, RW-400 was not operational; the pump was removed for cleaning and reinstalled.

On December 20, S-189 was not operational.

Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC
AOI 1: 26th Street & Packer Avenue Sewers Biofilter System
pH Data

Second Half 2016

Date	Leachate pH	Biofilter Bed - Soil pH			
		Cell 1	Cell 2	Cell 3	Cell 4
28-Jul-16	6.93	---	---	---	---
29-Aug-16	6.99	---	---	---	---
27-Sep-16	7.32	7.14	7.29	---	---
25-Oct-16	7.39	---	---	---	---
30-Nov-16	7.09	---	---	---	---
22-Dec-16	8.02	7.88	7.72	---	---

Notes:

Media pH readings are collected on a quarterly basis.

NA = No leachate was available to record pH

Cells 3 and 4 were shut off on June 18, 2010 and remained off for the reporting period as they are not currently needed for vapor treatment.

System startup was completed on November 10, 2016 and the system was operational for the remainder of the second half of 2016 with the following exceptions:

On July 19, the belts were replaced on blower #1 and the system was returned to service.

On September 14, belts were replaced on blower #1 and the system was returned to service.

Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC
AOI 1: 26th Street & Packer Avenue Sewers Biofilter System
Organic Vapor Concentrations

Second Half 2016

Date	Biofilter Influent			Biofilter Effluent							
	Packer Ave. (ppm)	26th Street (ppm)	ST-1 (Combined Influent) (ppm)	Cell-1N	Cell-1S	Cell-2N	Cell-2S	Cell-3N	Cell-3S	Cell-4N	Cell-4S
06-Jul-16	NM	NM	NM	NM	NM	NM	NM	NA	NA	NA	NA
12-Jul-16	NM	NM	NM	NM	NM	NM	NM	NA	NA	NA	NA
20-Jul-16	NM	NM	NM	NM	NM	NM	NM	NA	NA	NA	NA
28-Jul-16	NM	NM	NM	NM	NM	NM	NM	NA	NA	NA	NA
04-Aug-16	NM	NM	NM	NM	NM	NM	NM	NA	NA	NA	NA
10-Aug-16	NM	NM	NM	NM	NM	NM	NM	NA	NA	NA	NA
18-Aug-16	NM	NM	NM	NM	NM	NM	NM	NA	NA	NA	NA
24-Aug-16	NM	NM	NM	NM	NM	NM	NM	NA	NA	NA	NA
02-Sep-16	NM	NM	NM	NM	NM	NM	NM	NA	NA	NA	NA
09-Sep-16	NM	NM	NM	NM	NM	NM	NM	NA	NA	NA	NA
14-Sep-16	NM	NM	NM	NM	NM	NM	NM	NA	NA	NA	NA
21-Sep-16	NM	NM	NM	NM	NM	NM	NM	NA	NA	NA	NA
27-Sep-16	NM	NM	NM	NM	NM	NM	NM	NA	NA	NA	NA
06-Oct-16	NM	NM	NM	NM	NM	NM	NM	NA	NA	NA	NA
10-Oct-16	NM	NM	NM	NM	NM	NM	NM	NA	NA	NA	NA
21-Oct-16	NM	NM	NM	NM	NM	NM	NM	NA	NA	NA	NA
25-Oct-16	NM	NM	NM	NM	NM	NM	NM	NA	NA	NA	NA
02-Nov-16	NM	NM	NM	NM	NM	NM	NM	NA	NA	NA	NA
10-Nov-16	0.7	5.0	5.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA
16-Nov-16	0.0	4.0	3.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA
23-Nov-16	0.0	4.0	3.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA
02-Dec-16	0.0	3.0	3.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA
09-Dec-16	0.0	3.0	1.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA
16-Dec-16	0.0	17.0	9	0.0	0.0	0.0	0.0	NA	NA	NA	NA
22-Dec-16	1.0	3.0	4	0.0	0.0	0.0	0.0	NA	NA	NA	NA
26-Dec-16	0.0	9.0	5	0.0	0.0	0.0	0.0	NA	NA	NA	NA

Notes:

ppm: parts per million

NA: Not applicable

Vapor concentrations are collected using a MultiRAE Lite Photoionization Detector (PID).

System startup was completed on November 10, 2016 and the system was operational for the remainder of the second half of 2016 with the following exceptions:

On July 19, the belts were replaced on blower #1 and the system was returned to service.
On September 14, belts were replaced on blower #1and the system was returned to service.

Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC
Groundwater and LNAPL Recovery System Operational Data
AOI 2: Pollock Street West End System

Second Half 2016

Date	Period Total Flow (gallons)	Total Flow (gallons)	LNAPL Recovered in Period (gallons)	Total LNAPL Recovered (gallons)
5-Jul-16	127,500	29,428,705	0.0	60,631
11-Jul-16	73,200	29,501,905	0.0	60,631
18-Jul-16	2,000	29,503,905	0.0	60,631
25-Jul-16	156,000	29,659,905	0.0	60,631
2-Aug-16	134,000	29,793,905	0.0	60,631
8-Aug-16	110,100	29,904,005	0.0	60,631
15-Aug-16	127,900	30,031,905	0.0	60,631
22-Aug-16	126,400	30,158,305	0.0	60,631
2-Sep-16	134,800	30,293,105	0.0	60,631
7-Sep-16	0	30,293,105	0.0	60,631
12-Sep-16	0	30,293,105	0.0	60,631
19-Sep-16	0	30,293,105	0.0	60,631
26-Sep-16	100	30,293,205	0.0	60,631
4-Oct-16	1,800	30,295,005	10.7	60,642
10-Oct-16	500	30,295,505	0.5	60,642
18-Oct-16	2,000	30,297,505	0.0	60,642
24-Oct-16	1,100	30,298,605	0.0	60,642
31-Oct-16	2,600	30,301,205	0.0	60,642
7-Nov-16	15,600	30,316,805	0.0	60,642
14-Nov-16	24,600	30,341,405	0.0	60,642
21-Nov-16	6,700	30,348,105	0.0	60,642
28-Nov-16	22,800	30,370,905	0.0	60,642
5-Dec-16	21,000	30,391,905	0.0	60,642
12-Dec-16	9,900	30,401,805	0.0	60,642
19-Dec-16	24,000	30,425,805	0.0	60,642
26-Dec-16	0	30,425,805	0.0	60,642

Note:

LNAPL: Light Non-Aqueous Phase Liquid

The Pollock Street West End system was started on February 23, 2012. The groundwater and LNAPL recovery totals do not include historical totals from the former Pollock Street Vertical system recovery wells.

The Pollock Street West End system was operational during the reporting period with the following exceptions:

From July 5 through July 18, RW-119 and S-315 were not operational.

On July 18, the flow meter was not operational. The flow meter was removed for repair and reinstalled. Pumps RW-119 and S-315 were reinstalled.

On August 30, all wells except RW-119 and RW-120 were shut off.

On September 2, the system was shut off to evaluate LNAPL recharge.

On September 26, the system was restarted.

On October 4, RW-124 was not operational.

On November 14, RW-119 was not operational; the pump was removed and replaced.

On December 2 and December 5, RW-119 was not operational.

On December 12, the system was not operational due to a high oil water separator alarm.

On December 19, the system was shut off to observe LNAPL recharge in the wells.

Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC
Total Fluids Recovery System Operational Data
AOI 2: Pollock Street Horizontal Wells

Second Half 2016

Actual Dates in Period	Reporting Period (Internal)	Days in Period	HW-1 Days of Operation Within Period	HW-1 Water Recovered During Period (gallons)	HW-2 Days of Operation Within Period	HW-2 Water Recovered During Period (gallons)	HW-3 Days of Operation Within Period	HW-3 Water Recovered During Period (gallons)	Total Fluids Extracted During Period (gallons)	Total Fluids Extracted (gallons)	LNAPL Recovered During Period (gallons)
6/25/2016 - 6/30/2016	end 2Q2016	6	Totalizer	136,000	Totalizer	51,225	6	132,883	320,108	80,703,518	NA
6/25/2016 - 7/22/2016	July 2016	28	Totalizer	546,100	Totalizer	191,671	28	620,122	1,269,304	81,652,714	NA
7/23/2016 - 8/19/2016	Aug 2016	28	Totalizer	545,400	Totalizer	176,792	28	620,122	1,253,725	82,906,439	NA
8/20/2016 - 9/23/2016	Sept 2016	35	Totalizer	695,200	Totalizer	231,700	35	775,152	1,702,052	84,608,491	NA
9/24/2016 - 9/30/2016	end 3Q2016	7	Totalizer	145,000	Totalizer	46,242	7	155,030	346,272	84,954,764	NA
9/24/2016 - 10/21/2016	Oct 2016	28	Totalizer	577,900	Totalizer	191,810	28	620,122	1,389,832	85,998,323	NA
10/22/2016 - 11/21/2016	Nov 2016	31	Totalizer	655,800	Totalizer	257,563	31	686,563	1,599,926	87,598,249	NA
11/22/2016 - 12/21/2016	Dec 2016	30	Totalizer	438,200	Totalizer	221,579	30	664,416	1,324,195	88,922,444	NA
12/22/2016 - 12/31/2016	end 4Q2016	10	Totalizer	112,800	Totalizer	32,173	10	221,472	366,445	89,288,889	NA

Notes:

LNAPL: Light Non-Aqueous Phase Liquid

NA: Not Applicable

Pump tests were performed in March 2011 for the horizontal wells so that recovered volumes could be estimated based on flow rates and system up-time, beginning in the second quarter of 2011. A second pump test was completed following the installation of a new pump at HW-1 on May 13, 2013. The HW-1 flow rate was estimated at 10 gallons per minute (gpm), HW-2 at 3.73 gpm, and HW-3 at 15.38 gpm. Beginning May 25, 2013, HW-1 flow is measured and reported by a totalizer. HW-2 flow is measured and reported by a totalizer as of July 6, 2015.

HW-1 was operational for the reporting period.

HW-2 was operational for the reporting period.

HW-3 was operational for the reporting period.

Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC
Groundwater and LNAPL Recovery System Operational Data
AOI 4: Penrose Avenue Remediation System

Second Half 2016

Date	Period Total Flow (gallons)	Total Flow (gallons)	Average Daily Flow (gpd)	LNAPL Recovered in Period (gallons)	Total LNAPL Recovered (gallons)
06-Jul-16	117,500	14,931,760	14,688	6.6	737.5
12-Jul-16	87,620	15,019,380	14,603	3.4	740.9
19-Jul-16	108,280	15,127,660	15,469	15.0	755.9
27-Jul-16	133,820	15,261,480	16,728	34.3	790.2
03-Aug-16	58,690	15,320,170	8,384	32.0	822.2
09-Aug-16	43,720	15,363,890	7,287	29.1	851.3
15-Aug-16	31,610	15,395,500	5,268	34.0	885.3
24-Aug-16	35,530	15,431,030	3,948	65.5	950.8
31-Aug-16	15,940	15,446,970	2,277	55.6	1006.4
07-Sep-16	13,300	15,460,270	1,900	63.0	1069.4
13-Sep-16	9,210	15,469,480	1,535	48.2	1117.6
20-Sep-16	15,350	15,484,830	2,193	76.7	1194.3
27-Sep-16	37,400	15,522,230	5,343	85.2	1279.5
03-Oct-16	35,850	15,558,080	5,975	66.7	1346.2
10-Oct-16	41,300	15,599,380	5,900	76.7	1422.9
19-Oct-16	57,070	15,656,450	6,341	120.0	1542.9
25-Oct-16	35,490	15,691,940	5,915	75.9	1618.8
01-Nov-16	22,880	15,714,820	3,269	44.1	1662.9
10-Nov-16	44,060	15,758,880	4,896	144.6	1807.5
15-Nov-16	23,350	15,782,230	4,670	59.2	1866.7
22-Nov-16	32,590	15,814,820	4,656	92.0	1958.7
28-Nov-16	19,580	15,834,400	3,263	83.1	2041.8
06-Dec-16	45,410	15,879,810	5,676	152.4	2194.2
14-Dec-16	35,890	15,915,700	4,486	60.7	2254.9
19-Dec-16	25,680	15,941,380	5,136	66.1	2321.0
26-Dec-16	40,850	15,982,230	5,836	99.9	2420.9

Note:
gpd: gallons per day
LNAPL: Light Non-Aqueous Phase Liquid

The Penrose Avenue Remediation System consisting of 18 recovery wells (RW-700 through RW-717) was started on March 20, 2013. Groundwater and LNAPL are extracted using pneumatic pumps, and total fluids pass through an oil/water separator (OWS). The groundwater is discharged to the Philadelphia Water Department (PWD) sanitary sewer system along Penrose Avenue, and LNAPL is recovered in a 550-gallon storage tank.

The system was operational for the reporting period with the following exceptions:
On June 21, the pump for RW-706 was removed for cleaning.
On July 15, the pumps for RW-700 through RW-704, RW-706, and RW-708 were removed, cleaned and reinstalled.
On August 4, RW-706 and RW-708 were turned off due to a release at the valve of Tank 253.
On September 14, RW-708 was returned to service.
On September 20, RW-714 was returned to service

Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC
Recovery System Operational Data
AOI 7: 3 Separator System

Second Half 2016

Date	Total Flow (gallons)	Period Total Flow (gallons)	Calculated System Flow Rate (gpm)	LNAPL Recovered in Period (gallons)	Total LNAPL Recovered (gallons)
5-Jul-16	16,041,185	46,600	64.72	96.2	109,916.4
11-Jul-16	16,076,085	34,900	48.47	67.2	109,983.5
19-Jul-16	16,126,385	50,300	69.86	100.4	110,084.0
26-Jul-16	16,172,885	46,500	64.58	98.3	110,182.3
3-Aug-16	16,234,885	62,000	86.11	91.2	110,273.5
8-Aug-16	16,273,485	38,600	53.61	105.6	110,379.1
15-Aug-16	16,322,585	49,100	68.19	87.0	110,466.1
22-Aug-16	16,366,285	43,700	60.69	118.8	110,584.9
31-Aug-16	16,421,885	55,600	77.22	110.3	110,695.2
7-Sep-16	16,466,085	44,200	61.39	59.9	110,755.1
12-Sep-16	16,498,285	32,200	44.72	86.6	110,841.8
20-Sep-16	16,556,485	58,200	80.83	147.1	110,988.9
26-Sep-16	16,601,585	45,100	62.64	69.5	111,058.4
4-Oct-16	16,661,585	60,000	83.33	78.9	111,137.3
10-Oct-16	16,706,685	45,100	62.64	37.5	111,174.7
18-Oct-16	16,769,685	63,000	87.50	32.8	111,207.6
24-Oct-16	16,811,485	41,800	58.06	50.3	111,257.8
31-Oct-16	16,859,085	47,600	66.11	54.1	111,311.9
7-Nov-16	16,909,485	50,400	70.00	54.7	111,366.6
14-Nov-16	16,951,685	42,200	58.61	52.1	111,418.7
18-Nov-16	16,974,885	23,200	32.22	40.5	111,459.2
21-Nov-16	16,992,485	17,600	24.44	14.4	111,473.6
28-Nov-16	17,030,485	38,000	52.78	60.1	111,533.7
9-Dec-16	17,099,085	68,600	95.28	36.7	111,570.3
13-Dec-16	17,128,585	29,500	40.97	38.8	111,609.1
19-Dec-16	17,173,885	45,300	62.92	19.9	111,629.0
26-Dec-16	17,226,885	53,000	73.61	18.8	111,647.7

Note:

gpm: gallons per minute

LNAPL: Light Non-Aqueous Phase Liquid

The 3 Separator System is a hydraulic control system constructed of ten recovery wells (RW-801 through RW-810) which was started on August 23, 2012. Groundwater and LNAPL are extracted using pneumatic submersible pumps, and total fluids pass through an oil/water separator (OWS). Water is discharged to an on-site process sewer, and LNAPL is recovered in a tank prior to being recycled by the complex. Groundwater and LNAPL recovery totals include system startup through the end of the first half of 2016.

The system was operational for the reporting period with the exception of the following:
On August 10, the pump in RW-808 was replaced.
On September 16, all the recovery pumps were removed, cleaned, and reinstalled.

Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC
AOI 8: Jackson Street Sewer Water Curtain
Second Half 2016

Date	PID readings (ppm)			Comments
	Blower	Water Curtain	Interceptor Chamber	
07-Jul-16	NA	0.0	0.0	
14-Jul-16	NA	0.0	0.0	
20-Jul-16	NA	0.0	0.0	
27-Jul-16	NA	0.0	0.0	
05-Aug-16	NA	0.0	0.0	
12-Aug-16	NA	0.0	0.0	
18-Aug-16	NA	0.0	0.0	
25-Aug-16	NA	0.0	0.0	
02-Sep-16	NA	0.0	0.0	
09-Sep-16	NA	0.0	0.0	
15-Sep-16	NA	0.0	0.0	
23-Sep-16	NA	0.0	0.0	
30-Sep-16	NA	0.0	0.0	
06-Oct-16	NA	0.0	0.0	
17-Oct-16	NA	0.0	0.0	
26-Oct-16	NA	0.0	0.0	
02-Jan-16	NA	0.0	0.0	
20-Nov-16	NA	0.0	0.0	
22-Nov-16	NA	0.0	0.0	
01-Dec-16	NA	0.0	0.0	
08-Dec-16	NA	0.0	0.0	
16-Dec-16	NA	0.0	0.0	
21-Dec-16	NA	0.0	0.0	
26-Dec-16	NA	0.0	0.0	

NOTES:
PID: Photoionization detector (MultiRAE Lite PID)
ppm: parts per million
NA: Not Available (PID readings are not collected at the blower.)
Vapor concentrations are collected using a MultiRAE Lite PID.
The totalizer was removed on December 11, 2009.
The system was operational for the reporting period.