

Remedial Investigation Report (RIR) Addendum - AOI 4 - Plain Language Overview

Key Points & Takeaways

- The Philadelphia Refinery is organized into 11 areas of interest (AOIs). This document pertains to Area of Interest 4 (AOI 4), also known as the No. 4 Tank Farm.
- In 2017, Evergreen submitted an initial Remedial Investigation Report (RIR) for AOI 4, which was rejected by the Pennsylvania Department of Environmental Protection (PADEP) due to the need for more information. Now, Evergreen is submitting an addendum to provide additional information collected since the 2017 RIR.
- The AOI 4 RIR and this addendum are helpful in:
 - confirming geology and direction of groundwater flow.
 - identifying what chemicals of concern (COCs) are present in soil, groundwater and air.
 - identifying that other sources in addition to the former Philadelphia Refinery may be contributing to the chemicals in the soil and groundwater.
- Recent assessment does not indicate indoor or outdoor air concern to residents stemming from soil and groundwater contamination originating in AOI 4.

Summary

- The PADEP asked for additional information for AOI 4, which Evergreen provided in this Addendum. The response summarizes the updated technical information in response to PADEP.
- This Addendum explains the work performed by and on behalf of Evergreen since PADEP disapproved the initial RIR submission and addresses noted deficiencies through additional data collection and offsite expansion of the conceptual site model (CSM) dataset.
- Site characterization describes the nature and the extent of any contamination and defines contaminant pathways and receptors. The characterization work was also performed to enhance understanding of the things that influence where potential contaminants might end up given a long history of storage and transfer of products and refinery products at the Tank Farm under Sunoco ownership.
- Results of the characterization activities indicate that offsite subsurface soils within the investigation area are similar to those present beneath AOI 4 near its southeastern boundary, which allows for Evergreen to better predict where chemicals may occur in soil and groundwater.
- The pattern of groundwater benzene and Methyl tertiary-butyl ether (MTBE) impacts suggested possible on- and offsite sources outside of AOI-4, especially since AOI 4 had no documented MTBE source from past operations. There are several potential offsite sources in reasonable proximity to the AOI 4 southeastern boundary; this could have included releases of petroleum from several identified entities neighboring the facility as well as refinery sources outside the boundaries of AOI-4.

- Groundwater sampling indicated that offsite petroleum contamination was present. Special analyses were performed on selected petroleum compounds in groundwater samples and indicated that several different petroleum sources were present.
- The City of Philadelphia sewer system may serve as the primary way in which petroleum from off-site locations might impact groundwater near AOI4.
- A complete assessment of where contamination in groundwater will travel will be included in future reports.

For more information:

- View the detailed report that was submitted to PADEP (Report attached herein and can also be downloaded from: www.phillyrefinerycleanup.info/act-2-documents)
- During the public comment period, September 30, 2021 through October 30, 2021, comments, and questions regarding the report may be submitted to Evergreen which will be addressed and submitted to PADEP as part of their review of this report.
- Comments/Questions can be submitted via the following methods:
 - Website comment page: www.phillyrefinerycleanup.info/comment-submission-form
 - Via email to: phillyrefinerycleanup@ghd.com
 - Via USPS to: PO Box 7275, Wilmington, DE 19803