

PA Act 2, Land Recycling, Brownfield

Site Investigation, Conceptual Site Model, Remedial Action, DNAPL Recovery

Highlights

Obtained a PA Act 2
Release of Liability



Project History

Former Manufactured Gas Plant Pennsylvania



Regulatory Agency/Program

Pennsylvania Department of Environmental Protection (PADEP)/Pennsylvania Land Recycling Program (Act 2)

Constituents of Interest

PAHs, VOCs, Metals, and CN⁻

Project Description

The project site is a former MGP active from the late 1800s to the mid 1900s. The site is being addressed via a Consent Order and Agreement (COA) between the PADEP and the current site owner. Simultaneous with the COA, the site is also being addressed under PADEP's Act 2 program. Source materials at the site have been identified as coal tar contaminated soil contained within two underground gas holder bases, coal tar contained within the underground gas holder

bases, LNAPL located outside of the gas holder bases, and site soils and groundwater contaminated with PAHs, volatile organics, metals, and cyanide.

KEY completed an Interim Remedial Action (IRA) to remove the coal-tar-contaminated soil from within the underground gas holder bases. Now that all source materials have been removed, a cleanup plan to address the remaining environmental media will be developed and implemented.

Activities Performed

- Conducted a site characterization and completed a conceptual site model, including fate and transport evaluation, to satisfy the requirements of Act 2
- Conducted IRAs for removal of LNAPL from the site aquifer, and DNAPL from within the underground structures,



successfully removing over 2,000 gallons of DNAPL from an underground gas holder base

- Located and defined the boundaries and contents of all below-grade structures, and determined the quantity of source material, allowing an accurate prediction of remedial costs
- Used a combination of geophysical techniques followed by an extensive geoprobe investigation to determine the locations, total depths, and contents of below-grade structures
- Conducted pumping tests of the two 36-foot diameter underground gas holder bases identified on-site, to accurately determine that these structures were intact and capable of dewatering
- Developed bid specifications for removal of the coal tar contaminated soil from both of the underground gas holder bases
- Turnkey remediation of the two underground gas holder bases, including performing Construction Quality Assurance (CQA) activities and associated reporting