

**DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION**

Interim Final 2/5/99

**RCRA Corrective Action  
Environmental Indicator (EI) RCRIS code (CA725)  
Current Human Exposures Under Control**

**Facility Name:** Pompton Lakes Works  
**Facility Address:** 2000 Cannonball Road, Pompton Lakes, New Jersey 07442  
**Facility EPA ID #:** NJD 002173946

1. Has **all** available relevant/significant information on known and reasonably suspected releases to soil, groundwater, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

If yes - check here and continue with #2 below.

If no - re-evaluate existing data, or

If data are not available skip to #6 and enter "IN" (more information needed) status code.

**Rationale and Reference(s):**

*Refer to end of document for listing of figures, appendices, and references cited herein.*

In September 1988, E.I. du Pont de Nemours and Company (DuPont) entered into an Administrative Consent Order (ACO) with the New Jersey Department of Environmental Protection (NJDEP). In June 1992, the U.S. Environmental Protection Agency (USEPA) issued DuPont a Hazardous Waste Management Facility Permit under Section 9003 of the Hazardous and Solid Waste Amendments of 1984 (HSWA). The ACO and HSWA permit, which were revised in 1996, required DuPont to conduct a remedial investigation (RI) addressing contamination at, or emanating from, the Pompton Lakes Works (PLW) Site.

The PLW Site is located at 2000 Cannonball Road in Pompton Lakes, Passaic County, New Jersey. Figure 1 depicts the location of the PLW Site on the U.S. Geological Survey 7.5-minute Wanaque Quadrangle Map. The approximate 570-acre Site is divided into the following three former manufacturing areas (as shown on Figure 2):

- Eastern Manufacturing Area (EMA) located east of Wanaque River (former Lake Inez), south of New Jersey Interstate 287 (I-287), and west of Ramapo Mountain State Forest;
- Northern Manufacturing Area (NMA) located north of I-287 along Wanaque River; and
- Western Manufacturing Area (WMA) located south of I-287 along Wanaque River.

Multiple RIs have been completed and approved by USEPA and NJDEP (collectively referred to as "the Agencies") since 1988. Corrective measures have been completed at various onsite and offsite areas to address impacts based on the results of the RIs. Soil at the remaining Areas of Concern (AOCs) associated with the Site are being evaluated and addressed as part of the April 30, 2019 *Revised Draft Onsite Soils Corrective Measure Study (CMS)* and April 30, 2019 *Draft Wanaque River Corrective Measures Study (WR CMS)*.

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**BACKGROUND**

**Definition of Environmental Indicators (for the RCRA Corrective Action)**

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

**Definition of “Current Human Exposures Under Control” EI**

A positive “Current Human Exposures Under Control” EI determination (“YE” status code) indicates that there are no “unacceptable” human exposures to “contamination” (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all “contamination” subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

**Relationship of EI to Final Remedies**

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives, which are currently being used as Program measures for the 1993 Government Performance and Results Act (GPRA). The “Current Human Exposures Under Control” EI are for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and do not consider potential future land- or groundwater-use conditions or ecological receptors. The RCRA Corrective Action program’s overall mission to protect human health and the environment requires that Final remedies address these issues (i.e., potential future human exposure scenarios, future land and groundwater uses, and ecological receptors).

**Duration / Applicability of EI Determinations**

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

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2. Are groundwater, soil, surface water, sediments, or air **media** known or reasonably suspected to be **“contaminated”**<sup>1</sup> above appropriately protective risk-based “levels” (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)?

<b>Media</b>	<b>Yes</b>	<b>No</b>	<b>?</b>	<b>Rationale/Key Contaminants</b>
Groundwater	X			<p>Groundwater has been investigated since 1981 under a variety of programs. Semi-annual groundwater monitoring program has been in place since 1996.</p> <p>Ten Site-related volatile organic compounds (VOCs), as defined below under “Rationale and References,” have been detected above New Jersey Groundwater Quality Standards for Class IIA (GWIIA).</p>
Air (indoors) <sup>2</sup>	X			<p>Under the vapor intrusion (VI) program, sub-slab soil gas (SSSG) samples have been collected below offsite residential structures since 2008 for the 10 Site-related VOCs found in groundwater. Early in the program, SSSG concentrations were detected above VI trigger levels in place at the time. In the past several years, with shallow groundwater concentrations having decreased over time, SSSG sampling has shown an order of magnitude reduction in concentrations where paired data is available.</p> <p>Indoor air sampling has been conducted since 2008 in residences above the offsite shallow groundwater plume area and the one occupied office building onsite. Sampling has shown that indoor air concentrations of the 10 Site-related VOCs are either non-detect or below current VI remediation standards. Where concentrations have exceeded the standards, additional investigative work has shown that these concentrations were the result of background sources associated with the property and not indicative of a VI pathway. Indoor air concentrations are (and continue to be) consistent with background levels typically found in residential structures not above a groundwater plume.</p>

<sup>1</sup> “Contamination” and “contaminated” describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk-based “levels” (for the media, that identify risks within the acceptable risk range).

<sup>2</sup> Recent evidence (from the Colorado Dept. of Public Health and Environment, and others) suggest that unacceptable indoor air concentrations are more common in structures above groundwater with volatile contaminants than previously believed. This is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration necessary to be reasonably certain that indoor air (in structures located above (and adjacent to) groundwater with volatile contaminants) does not present unacceptable risks.

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<b>Media</b>	<b>Yes</b>	<b>No</b>	<b>?</b>	<b>Rationale/Key Contaminants</b>
Surface Soil (e.g., <2 ft)	X			<p>Multiple RI phases have been completed onsite that included soil sampling in areas associated with former manufacturing processes at the Site.</p> <p>Metals, polycyclic aromatic hydrocarbons (PAHs), Site-related VOCs, and polychlorinated biphenyls (PCBs) have been detected in surface soil collected from onsite former manufacturing areas at concentrations above New Jersey Residential or Non-Residential Soil Remediation Standards (RSRS or NRSRS, respectively).</p>
Surface Water	X			<p>Multiple RI phases have been completed in water bodies associated with the Site; most notably, Acid Brook and Wanaque River.</p> <p>Tetrachloroethene (PCE) and vinyl chloride have been detected in a limited onsite section of Acid Brook above New Jersey Surface Water Quality Standards (SWQS) protective of human health while concentrations offsite have been below the SWQS. Concentrations both onsite and offsite are below Site-specific screening levels.</p> <p>Mercury has been detected in Wanaque River above the SWQS. It should be noted that NJDEP has issued fish consumption advisories for New Jersey's freshwater bodies due to contamination by a number of constituents, including mercury (<a href="https://dep.nj.gov/dsr/fish-advisories-studies/">https://dep.nj.gov/dsr/fish-advisories-studies/</a>).</p>
Sediment	X			<p>Multiple RI phases have been completed in sediment of water bodies associated with the Site with many areas since remediated (i.e., onsite/offsite Acid Brook, portions of Pompton Lake near the discharge of Acid Brook, offsite downgradient Wanaque River).</p> <p>Mercury has been detected above the RSRS in onsite sections and immediately downgradient in Wanaque River.</p>
Subsurface Soil (e.g., >2 ft)	X			<p>Multiple RI phases have been completed onsite that included soil sampling in areas associated with former manufacturing processes at the Site.</p> <p>Metals, PAHs, and PCBs have been detected in subsurface soil collected from onsite former manufacturing areas at concentrations above the RSRS or NRSRS.</p>

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Media	Yes	No	?	Rationale/Key Contaminants
Air (outdoors)		X		<p>Not considered a media of concern.</p> <p>Onsite groundwater and treatment system air concentrations (emissions) meet the Site's air permit discharge limits.</p> <p>Outdoor (ambient) air sampling for the 10 Site-related VOCs found in groundwater has been conducted since 2008 in the area above the offsite shallow groundwater plume as part of the ongoing VI investigation. Outdoor air concentrations are (and continue to be) consistent with background levels typically found in ambient air.</p> <p>NJDEP air dispersion modeling and risk assessment of Site-related VOC concentrations from treatment of contaminated groundwater at Site and from vapor mitigation system stacks in the offsite residential area show negligible risk (see "Rationale and References" below for further information).</p>

\_\_\_\_\_ If no (for all media) - skip to #6, and enter "YE," status code after providing or citing appropriate "levels," and referencing sufficient supporting documentation demonstrating that these "levels" are not exceeded.

  **X**   If yes (for any media) - continue after identifying key contaminants in each "contaminated" medium, citing appropriate "levels" (or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.

\_\_\_\_\_ If unknown (for any media) – skip to #6 and enter "IN" status code.

Rationale and Reference(s):

*Refer to end of document for listing of figures, appendices, and references cited herein.*

The rationale presented below supports the identification of media presented in the table above for Question #2 of this CA725 for the PLW Site. The supporting documentation is organized by medium (same order as table) with the following information provided:

- Risk-based screening levels used during evaluation,
- Background and dataset used for comparison to risk-based screening levels, and
- Identification of constituents of potential concern (COPCs) based on evaluation.
- Current Site conditions

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## **GROUNDWATER**

### Risk-Based Screening Levels

Groundwater data were evaluated relative to NJDEP's GWIIA as found in New Jersey Administrative Code (N.J.A.C.) 7:9C (last amended February 5, 2025).

### Background and Dataset

Groundwater had been sampled extensively at the Site since 1981 under a variety of programs. A semi-annual groundwater monitoring program was implemented as part of the Agency-approved July 21, 1993 *Groundwater Remedial Action Plan* and is conducted in accordance with the Agency-approved November 14, 1995 *Comprehensive Groundwater Monitoring Program (CGMP)* for the Site. Groundwater quality is monitored on a semi-annual basis (in May and November) from onsite and offsite wells installed in the shallow, intermediate, and deep zones of the alluvial aquifer. Semi-annual groundwater analytical results are reported on an annual basis (in February); the most recent report being the February 28, 2025 *2024 Annual Groundwater Report*.

### COPC Identification

In accordance with the CGMP, semi-annual groundwater sample locations are based on the distribution of constituents of concern (COCs) and groundwater flow direction with wells selected to monitor potential changes in concentrations over time and potential changes in the spatial distribution of Site-related VOCs in groundwater. The program also focuses on monitoring the offsite perimeter of the Site-related VOC plume as well as other additional offsite interior plume monitoring wells.

Semi-annual groundwater samples are analyzed for the 10 Site-related VOCs (per the CGMP): PCE, trichloroethene (TCE), 1,1,1-trichloroethane, 1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, carbon tetrachloride, and vinyl chloride. Table 3 from the *2024 Annual Groundwater Report* (see Appendix A of this CA725) presents the analytical results from the 52 monitoring wells sampled in May and November 2024 and compared to the GWIIA.

### Current Site Conditions

The PLW Site has three NJDEP-approved groundwater Classification Exception Areas (CEAs)/Well Restriction Areas (WRAs) that address onsite and offsite groundwater, with the most recent certification being the April 26, 2024 *2024 Classification Exception Area – Biennial Certification*.

In addition, groundwater in the southern portion of the EMA is captured by a groundwater extraction and treatment (GWET) system that has been in operation at the Site since August 1998. The system is designed to capture impacted groundwater at the Site boundary by pumping groundwater from six recovery wells located at the aquifer hydraulic downgradient boundary (along the southern edge of the Site). This pumping creates a depression in the water table, capturing groundwater in the vicinity of the wells. Extracted groundwater is treated to remove Site-related VOCs and ultimately reintroduced into the shallow groundwater zone through a series of infiltration beds along the southeastern portion of the Site boundary. Details on the effectiveness of this remedy (e.g., semi-annual groundwater elevations, monthly system influent and effluent Site-related VOC concentrations) are reported on a quarterly basis; the most recent report being the January 30, 2025 *Quarterly Groundwater Extraction and Treatment Operating Summary* which reported the 4<sup>th</sup> Quarter 2024 operating results.

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As presented in the *2024 Annual Groundwater Report*, semi-annual groundwater results indicate that Site-related VOC concentrations continue to trend downward across the groundwater plume area. Furthermore, concentrations downgradient of the Site and infiltration beds have been significantly reduced (i.e., by an order of magnitude or more) in the timeframe that the GWET system has been operating. Data also indicates that the GWET system is meeting the objective of the system which is to stabilize the onsite residual source of groundwater impacts that has the greatest potential for offsite migration in the southern portion of the EMA.

## **AIR (INDOORS)**

### Risk-Based Screening Levels

Indoor air data were evaluated relative to NJDEP's Indoor Air Remediation Standards (IARS) as found in N.J.A.C. 7:6D (last amended May 6, 2024). Numerical remediation standards for the VI exposure pathway include those promulgated in Tables 7 (residential) and 8 (non-residential) of Appendix 1 (Remediation Standards Tables) in N.J.A.C. 7:26D.

### Background and Dataset

Since 2008, VI investigation and mitigation activities have been performed to evaluate and address the potential VI pathway at structures that exist over the offsite shallow impacted groundwater area. Agency-approved documents that have been followed in completion of the VI program include:

- *Vapor Interim Remedial Measure Work Plan (VIRMWP)* dated June 16, 2008;
- *Addendum to Vapor Interim Remedial Measure Work Plan – Phase II Program* dated November 4, 2009; and
- *Vapor Interim Remedial Measure Work Plan Addendum* dated December 1, 2010.

Since 2008, pre-mitigation indoor air samples have been collected (both heating and non-heating season) inside over 400 residential structures within the offsite shallow impacted groundwater area. The laboratory analytical reports for these samples have been transmitted to the Agencies for data validation (by NJDEP) and evaluation purposes. Samples collected from June 2008 through May 2010 were presented in the Agency-approved December 17, 2010 *Vapor Intrusion Remedial Investigation Report*.

There is one occupied office building located onsite. Indoor air sampling has been conducted at this building since 2008. An indoor air sample has been collected from the first floor of this building on an annual basis since 2015 (11 total years to date).

### COPC Identification

In accordance with the VIRMWP, indoor air samples are analyzed for the full suite of VOCs. However, data evaluation focuses on the 10 Site-related VOCs (specifically, PCE and TCE) detected in groundwater. Observations related to indoor air concentrations are as follows:

- Concentrations of the 10 Site-related VOCs in the indoor air samples collected to date have either been non-detect; below the IARS; or, in a situation where a concentration has been above the IARS, found to be a result of a background source(s) upon further investigation and not due to VI.

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- As stated in the Agency-approved December 17, 2010 *Vapor Intrusion Remedial Investigation Report*:
  - Indoor air concentrations found during the VI investigation were consistent with background levels typically found in residential structures not above a groundwater plume. This was consistent when looking at the full dataset (heating and non-heating season data), as well as just the heating season data only.
  - The aggregate body of paired SSSG and indoor air quality data (full dataset as well as heating season data only) did not indicate a strong correlation between SSSG concentrations and indoor air quality.
  - Data from indoor air (full dataset as well as heating season data only) and SSSG sampling indicated the presence of certain Site-related VOCs that were attributable to background sourcing within the structures and not to the shallow groundwater.
- An evaluation of indoor air concentrations (during the heating season) at five properties currently in the long-term monitoring (LTM) program was completed. The LTM program consists of the collection of an indoor air sample on an annual basis. The following observations are offered as it relates to indoor air concentrations over time:
  - One property has been in the LTM program since 2011 (15 annual sampling events) with indoor air concentrations being non-detect during each event;
  - One property has been in the LTM program since 2012 (14 annual sampling events) with indoor air concentrations being non-detect during each event; and
  - Three properties have been in the LTM program since 2018 (8 annual sampling events) with indoor air concentrations being non-detect during each event.
- An indoor air sample has been collected from the first floor of onsite building on an annual basis since 2015 (11 total years to date). There have been no detections of the 10 Site-related VOCs during any of these annual sampling events.

#### Current Site Conditions

In 2008, installation of a vapor mitigation system was offered as an interim remedial measure (IRM) to those property owners located over the offsite shallow impacted groundwater area to mitigate the potential for VI to occur. A total of 341 systems have been installed under this program. Additionally, five properties are in the LTM program (chosen by owners in lieu of system installation).

Vapor mitigation system termination has been completed at eight properties since 2015, and paired SSSG and indoor air sampling (Phase II Program – two rounds of sampling) have shown that the VI pathway is incomplete at 13 properties since 2012.

### **SURFACE AND SUBSURFACE SOILS**

#### Risk-Based Screening Levels

Surface and subsurface soils were evaluated relative to NJDEP's RSRS and NRSRS land use as found in N.J.A.C. 7:26D (last amended May 6, 2024). Numerical remediation standards for the two direct contact exposure pathways (ingestion-dermal and inhalation) include those promulgated in Tables 1 through 4 of Appendix 1 (Remediation Standards Tables) in N.J.A.C. 7:26D. SRS are based on a hazard quotient (HQ) of one (1) for non-carcinogens and one in one million ( $1 \times 10^{-6}$ ) cancer risk level.

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Background and Dataset

Onsite surface and subsurface soils have been investigated, and the following Remedial Investigation Reports (RIRs) have been submitted to the Agencies:

- *South Plant Remedial Investigation Report* (encompassing activities in the southern portion of the EMA) dated October 2, 2002;
- *Remedial Investigation Report Western Manufacturing Area* dated June 30, 2010 (revised December 2010);
- *Remedial Investigation Report Northern Manufacturing Area* dated June 30, 2010;
- *Remedial Investigation Report Eastern Manufacturing Area* (encompassing activities in the northern and middle portions of the EMA) dated June 30, 2010; and
- *Former Eastern Manufacturing Area Supplemental Remedial Investigation Report* dated October 15, 2012.

The Agencies issued correspondence dated February 20, 2013 that approved the RIRs for the Site; thus, constituting completion of the RI phase for onsite soils.

COPC Identification

Appendix B (located at the end of this CA725) presents soils concentrations compared to NJDEP's SRS for the ingestion-dermal and inhalation exposure pathways. Depending on the former manufacturing area, soils data were compared to the RSRS or NRSRS. COPCs in onsite soils include metals (arsenic, copper, lead, and mercury), PAHs (e.g., benzo[a]pyrene), Site-related VOCs (PCE) and PCBs. Additionally, an area located within the Ramapo Mountain State Forest adjacent to AOC 1 exhibits lead concentrations above the RSRS in surface soils.

Current Site Conditions

Corrective measures have been completed at various onsite and offsite areas to address impacts based on the results of the RIs. Corrective measure alternatives for soils at the remaining AOCs associated with the Site are being evaluated and addressed as part of the April 30, 2019 *Revised Draft Onsite Soils Corrective Measure Study* (CMS) and April 30, 2019 *Draft Wanaque River Corrective Measures Study* (WR CMS). The Chemours Company FC, LLC (Chemours) continues to work with the Agencies to finalize both CMS documents and corrective measures scope of work to address Site-related constituents in soils at areas across the former manufacturing areas.

Access restrictions (Site boundary fencing, security patrols, no trespassing signage) are in place to control and limit unauthorized personnel from entering the Site. Best management practices are also in place onsite and utilize engineering controls, such as vegetation, in areas not covered by asphalt or concrete.

**SURFACE WATER**

Risk-Based Screening Levels

Surface water data were evaluated relative to NJDEP's SWQS as found in N.J.A.C. 7:9B (last amended December 18, 2023). Numerical standards for the protection of human health include those promulgated in N.J.A.C. 7:9B-1.14(f)(7) for fresh water (FW2 human health surface water quality criteria [SWQC]). Acid Brook is classified by the State of New Jersey as FW2-NT (non-trout waters). Wanaque River is classified as FW-TP(C1) (trout production) for the reach that traverses the

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Site downstream to Wanaque Avenue. Downstream of Wanaque Avenue, the river is classified as FW2-TM (trout maintenance).

Background and Dataset

For Acid Brook, surface water sampling was most recently conducted in 2018, 2019, and 2023 to characterize groundwater-to-surface water discharge pathways. The results were presented in the April 18, 2024 *Draft Acid Brook Groundwater-to-Surface Water Pathway Investigation Report*.

For Wanaque River, the RI was implemented in two phases conducted between 2009 and 2010, and supplemental investigative activities conducted between 2011 and 2014. The results are documented in the following reports:

- *Wanaque River Remedial Investigation Report* dated July 30, 2010 (revised 2011);
- *Wanaque River Investigation Technical Status Report* dated October 12, 2012; and
- *Wanaque River Interim Remedial Measure Data Collection Activities Report* dated December 2, 2014.

COPC Identification

For Acid Brook evaluations (i.e., assessing the groundwater-to-surface water pathway), surface water samples have been analyzed for the 10 Site-related VOCs. Table 5 from the *Draft Acid Brook Groundwater-to-Surface Water Pathway Investigation Report* (see Appendix C of this CA725) provides a comparison of the analytical results to the FW2 HH SWQC. As indicated in this appendix, PCE and vinyl chloride (a related biodegradation product) were the only Site-related VOCs detected in surface water at concentrations exceeding the screening criteria. However, the FW2 HH SWQC conditions for exposure assumptions (based on the consumption of fish and water) are significantly different than conditions that have historically and currently exist within Acid Brook. For example,

- Acid Brook does not provide permanent aquatic habitats capable of supporting edible sized fish populations for human consumption, and
- Acid Brook does not provide adequate flow and has not historically nor currently been used as a drinking water source.

Therefore, Site-specific screening levels (SLs) were derived to more accurately reflect actual exposure conditions in the brook. As concluded in the April 2024 *Draft Acid Brook Groundwater-to-Surface Water Pathway Investigation Report*:

- The conceptual Site model indicated shallow groundwater containing Site-related VOCs may seasonally discharge to a localized area of Acid Brook under certain hydrogeological conditions when the groundwater elevation is temporarily higher than the Acid Brook streambed elevation. This localized area of groundwater-to-surface water discharge is in an area where Acid Brook runs perpendicular to the direction of groundwater flow and sits within the secure fenced boundary of the PLW Site.
- None of the Site-related VOCs detected in surface water samples from Acid Brook exceeded Site-specific SLs derived for the protection of human health using highly conservative exposure assumptions. Therefore, Site-related VOC concentrations detected in surface water samples from Acid Brook do not present an unacceptable risk to human receptors.
- Concentrations of Site-related VOCs measured in surface water at the original USEPA sampling location have decreased almost two orders of magnitude since 2012 (i.e., 10 ug/L to 0.23 ug/L).

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For Wanaque River, Appendix D (located at the end of this CA725) provides a comparison of surface water analytical results (from Phase I and II RI work) to the FW2 HH SWQC. As indicated in this appendix, limited exceedances for total mercury were observed in reaches upstream and adjacent to the Site. Total mercury concentrations above FW2 HH SWQC were also observed in an immediate downstream (offsite) reach with maximum detected concentrations observed directly downstream of Post Brook.

#### Current Site Conditions

Corrective measures have been completed at various onsite and offsite areas to address impacts based on the results of the RIs. Chemours continues to work with the Agencies to finalize the WR CMS and corrective measures scope of work to address Site-related constituents in Wanaque River surface water (through remediation of sediments as discussed below).

Access restrictions (Site boundary fencing, security patrols, no trespassing signage) are in place to control and limit unauthorized personnel from entering the Site and onsite portions of Acid Brook and Wanaque River. Access to offsite portions is limited by the presence of thick vegetation, marshy areas, and steep embankments.

### **SEDIMENT**

#### Risk-Based Screening Levels

New Jersey does not have promulgated sediment remediation standards for the evaluation of the human health direct contact exposure pathway. As a result, RSRS were conservatively used for the evaluation.

#### Background and Dataset

Sediments (and bank soils) within onsite and offsite portions of Wanaque River was investigated historically (1990), during the Wanaque River RI (2009 – 2010), and as part of supplemental investigative activities (2011-2014). The results are documented in the following reports:

- *Wanaque River Remedial Investigation Report* dated July 30, 2010 (revised 2011);
- *Wanaque River Investigation Technical Status Report* dated October 12, 2012; and
- *Wanaque River Interim Remedial Measure Data Collection Activities Report* dated December 2, 2014.

#### COPC Identification

Data from the RI and supplemental investigations are provided in Appendix E (at the end of this CA725). As shown in this appendix, mercury was detected above the RSRS in samples collected from portions of Wanaque River adjacent to the Site. Mercury concentrations in sediment samples collected downstream of the former dam were below RSRS.

As part of the investigation of Pompton Lake (now remediated), sediment investigations were also conducted downstream of Pompton Lake Dam within a 3-mile Ramapo River and Pompton River study area. Details of this investigation and results are provided in the July 10, 2015 *Ramapo-Pompton River Sediment Investigation Report*. Appendix F of this CA725 presents the results from sediment sampling. As indicated in this appendix, mercury was detected slightly above the conservatively applied criteria (RSRS of 23 mg/kg) in only 1 of the 34 sediment stations collected from the study area at an estimated concentration of 23.9 mg/kg. The exceedance was observed in a spatially limited, fine-grained sediment deposit and was not consistent with total mercury

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concentrations observed in surficial sediment samples from other fine-grained deposits within the study area.

#### Current Site Conditions

Remediation of Acid Brook sediments (onsite and offsite), Wanaque River sediments (offsite), and Pompton Lake sediments (Acid Brook Delta as well as two other discrete areas downstream of this area) has been previously conducted.

Chemours continues to work with the Agencies to finalize the WR CMS (onsite portions of Wanaque River and immediately downstream) and corrective measures scope of work to address Site-related constituents in Wanaque River sediments.

Access restrictions (Site boundary fencing, security patrols, no trespassing signage) are in place to control and limit unauthorized personnel from entering the Site and onsite portions of Wanaque River. Access to offsite portions is limited by the presence of thick vegetation, marshy areas, and steep embankments.

#### **AIR (OUTDOORS)**

##### Risk-Based Screening Levels

Outdoor (ambient) air data were evaluated relative to Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PELs) or NJDEP IARS, depending on the investigation and land use setting.

##### Background and Dataset

Outdoor air monitoring has been conducted during remedial activities to ensure conditions do not exceed acceptable levels specified within Site-specific Health and Safety Plans (HASPs). These data have been previously submitted as part of the respective remediation reports and approved by the Agencies.

As part of the VI program, over 600 outdoor (ambient) air samples have been collected within the residential area of the offsite shallow groundwater plume area since June 2008. Samples have been analyzed for the full suite of VOCs and laboratory analytical reports are submitted to the Agencies for data validation (by NJDEP) and evaluation.

##### COPC Identification

The following lines of evidence support the conclusion that outdoor air is not “known or reasonably suspected to be contaminated above appropriately protective risk-based levels”:

- Air sampling during remedial activities represent worst case conditions (i.e., during intrusive activities) and have not identified potential concerns. For evaluating environmental indicators (EIs), tabulating historic air data on worst case conditions does not reflect current conditions, which is the focus of the EI. It does, however, provide a line of evidence that there is no concern regarding ambient air at the PLW Site,
- To date, concentrations of the 10 Site-related VOCs in outdoor air have either been non-detect or below NJDEP’s IARS.
- NJDEP completed air dispersion modeling and a risk assessment of PCE and TCE emissions from the treatment of contaminated groundwater at the PLW Site and from the vapor mitigation system stacks in the offsite residential area. The air dispersion modeling and risk assessment

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showed negligible inhalation cancer and non-cancer risks for both constituents. The results are presented in the May 11, 2010 *Pompton Lakes PCE/TCE Air Dispersion Modeling and Risk Assessment* memorandum.

Current Site Conditions

Manufacturing at the PLW Site ceased in April 1994. A limited number of environmental staff are currently located at the facility and continue to work on environmental investigation and remediation activities. Personnel conducting field work have been OSHA-trained. Intrusive activities are subject to OSHA 1910.120 (Hazardous Waste Operations and Emergency Response) and Site-specific permitting activities that include an assessment of data in that area and preparation of a HASP.

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3. Are there **complete pathways** between “contamination” and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

Summary Exposure Pathway Evaluation Table  
Potential Human Receptors (Under Current Conditions)

<b>Contaminated Media</b>	<b>Residents</b>	<b>Workers</b>	<b>Day-Care</b>	<b>Construction</b>	<b>Trespassers</b>	<b>Recreation</b>	<b>Food<sup>3</sup></b>
Groundwater	No	No			N/L	N/L	No
Air-(indoors)	No	No			No	No	No
Soil (surface, e.g., <2 ft)	No	No			Yes	Yes	No
Surface Water	No*	No			Yes	Yes	Yes
Sediment	No*	No			Yes	Yes	Yes
Soil (subsurface e.g., >2 ft)	No	No			N/L	N/L	No
<del>Air (outdoors)</del>							

\* Surface water and sediment exposures for residents were evaluated under the recreational scenarios.

Instructions for Summary Exposure Pathway Evaluation Table:

1. Strikeout specific Media including Human Receptors’ spaces for Media which are not (“contaminated”) as identified in #2 above.
2. Enter “yes” or “no” for potential “completeness” under each “Contaminated” Media – Human Receptor combination (Pathway). N/L = Not Likely
3. Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish, etc.)

**Note:** In order to focus the evaluation to the most probable combinations some potential “Contaminated” Media - Human Receptor combinations (Pathways) do not have check spaces (“\_\_\_”). While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.

\_\_\_\_\_ If no (pathways are not complete for any contaminated media-receptor combination) –skip to #6, and enter “YE” status code, after explaining and/or referencing condition(s) in-place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional Pathway Evaluation Work Sheet to analyze major pathways).

**X** \_\_\_\_\_ If yes (pathways are complete for any “Contaminated” Media – Human Receptor combination) - continue after providing supporting explanation.

\_\_\_\_\_ If unknown (for any “Contaminated” Media - Human Receptor combination) - skip to #6 and enter “IN” status code

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<sup>3</sup> Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish, etc.)

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Rationale and Reference(s):

*Refer to end of document for listing of figures, appendices, and references cited herein.*

Manufacturing at the PLW Site ceased in April 1994. Section 2.3.1 of the April 2019 CMS describes current land use for the PLW Site and surrounding area. Although currently zoned for commercial and industrial use, onsite land use is a mix of open areas, undeveloped areas, heavily wooded terrain of varying topography, waterway, or floodplain. Under the New Jersey Highlands Water Protection and Planning Act, a majority of the Site located in the Borough of Wanaque has been designated as a Preservation Area and the entire Site located in the Borough of Pompton Lakes has been designated as a Planning Area.

Ramapo Mountain State Forest borders the property to the east. An active industrial facility and a residential area border the property to the south. A freight rail is located adjacent to the property along the southeastern border. The only vehicular access to the property is via Cannonball Road, a corridor primarily consisting of industrial, commercial, and multi-family land uses.

### **POTENTIAL HUMAN RECEPTORS**

1. *Onsite Workers:* Manufacturing at the PLW Site ceased in April 1994. However, a limited group of environmental professionals remain at the Site and work on environment investigation and remediation activities.
2. *Onsite Trespassers:* The PLW Site is fenced, and access is controlled and limited to authorized personnel only. However, recreational trespassing has occurred within the fenced area, including Wanaque River banks and shoreline. Access restrictions (Site boundary fencing, security patrols, no trespassing signage) are in place to control and limit unauthorized personnel from entering the Site and onsite portions of Wanaque River. Access to onsite portions of Wanaque River is limited by the presence of thick vegetation, marshy areas, and steep embankments. Wanaque River in this area is very shallow, and boat use has not been routinely observed in this reach; any potential boat use would be limited to low draft, non-motorized watercraft (e.g., kayaks, canoes) due to the shallow water. The shallow nature of Wanaque River also makes swimming difficult. Designated public access to the river is over 2,500 feet downstream of the Site. To the extent that trespassers may use the river, such use would also be restricted to warm weather months.
3. *Offsite Recreational Users:* Recreational use may occur adjacent to the Site in the Ramapo Mountain State Forest and downstream along offsite portions of Wanaque River immediately adjacent to the PLW Site property boundary. Therefore, offsite recreational users (also considered as offsite residents) were considered potential receptors. The State Forest area located adjacent to the northeastern border of the Site is in an isolated area approximately  $\frac{1}{3}$  acres in size where receptors may be potentially exposed to lead in surface soils and is densely vegetated with uneven and rugged terrain. Access to this area is limited due to these conditions. Offsite portions of Wanaque River (approximately  $1\frac{1}{4}$  acres in size from the Site property boundary downgradient to the former dam) access is limited by the presence of thick vegetation, marshy areas, and steep embankments. Wanaque River in this offsite area is very shallow. Boat use has not been routinely observed, and any potential boat use would be limited to low draft, non-motorized watercraft (e.g., kayaks, canoes) due to shallow water as well as the presence of low bridges spanning the river which would limit clearance. The shallow nature of Wanaque River also makes swimming difficult. Designated public access to the river is approximately 2,000 feet downstream of the former dam. To the extent that recreators may use the river, such use would also be restricted to warm weather months. NJDEP has issued fish advisories for all of New

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Jersey's freshwater bodies (<https://dep.nj.gov/dsr/fish-advisories-studies/>). The shallow nature of Wanaque River makes it unappealing for fishing (i.e., small/insufficient quantities of desirable fish) and limits potential cold-water refuge (deep water pools) where fish could survive in warmer weather months.

4. *Offsite Residents – Air (Indoors)*: Indoor air concentrations measured in offsite residential structures located over the offsite shallow groundwater area have either been non-detect or do not exceed current IARS. However, a VI mitigation program has been in place since June 2008 to address the potential VI pathway.

Existing deed notices filed for the PLW Site in April 2015 prohibit the use of the property as a daycare or childcare facility, or for residential purposes. Sensitive receptors (such as daycare) are also not located adjacent to the Site. Therefore, onsite residents and daycare receptors are not potential receptors.

There are no active site operations, and any intrusive activities are subject to Site-specific institutional controls that include preparation of a HASP and worker training requirements as required by OSHA. Therefore, onsite construction workers are not considered potential receptors.

#### **COMPLETE EXPOSURE PATHWAYS BY MEDIA**

1. *Surface Soils*: The potential for exposure to contaminants in surface soils is generally limited to onsite receptors since impacted soils are mostly contained within the Site boundaries, except for a limited extent of offsite Wanaque River bank soils and limited portion of the adjacent Ramapo Mountain State Forest. Potential exists for direct contact with onsite soils during trespassing. Potential exists for direct contact with offsite Wanaque River bank soils and Ramapo Mountain State Forest during recreational activities. Potentially complete exposure pathways may include the following:
  - Onsite trespasser – incidental ingestion of and dermal contact with surface soils and inhalation of soil-derived particulates.
  - Offsite recreational user – incidental ingestion of and dermal contact with surface soils and inhalation of soil-derived particulates.
2. *Surface Water and Sediments*: Trespassers may access onsite portions of Acid Brook and Wanaque River, and recreational activities may occur in offsite portions of Wanaque River.

Potentially complete exposure pathways for onsite Acid Brook surface water include:

- Onsite trespasser – incidental ingestion of and dermal contact with surface water while wading.
- Offsite recreational user – incidental ingestion of and dermal contact with surface water while hiking, wading, or at play directly downstream of the PLW Site.

Potentially complete exposure pathways for Wanaque River surface water and sediments include:

- Onsite trespasser – incidental ingestion of and dermal contact with surface water and sediments while fishing or wading; and indirect exposure to COPCs in surface water and sediment via ingestion of fish.

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- Offsite recreational user – incidental ingestion of and dermal contact with surface water while fishing or wading; and indirect exposure to COPCs in surface water and sediment via ingestion of fish.

**INCOMPLETE EXPOSURE PATHWAYS BY MEDIA**

1. *Groundwater*: Groundwater is not used for potable water supply onsite or offsite. The community receives potable water from the local Municipal Utility Authority (MUA); with wells located west and southwest of the PLW Site over a mile away.

The PLW Site has three NJDEP-approved groundwater CEAs that address onsite and offsite groundwater. A CEA has the effect of suspending the designated uses (Class II-A) and constituent standards in the indicated area for the duration of the operation of the recovery systems. CEAs #1 and #3 located onsite, and CEA #4 located offsite were established in 2004 for the Site. Prior to the establishment of the CEA, a well search was performed in Spring 1997 utilizing NJDEP's Bureau of Water Allocation's well database. In addition to the electronic well search, in the early 1990s a direct mailing was sent to property owners in the offsite CEA requesting well information. For locations where no response was received, an additional mailing and property visit were used to obtain well information and to notify the property owners in the offsite CEA of the presence of the groundwater plume. These investigation activities identified 127 well locations within the offsite CEA. Based on a review of the information collected for these wells, it appeared that they were either not being used or were being utilized for irrigation purposes only. Although local ordinance prohibits the installation of new wells within the Borough of Pompton Lakes, a Well Restriction Area (WRA) was submitted to the Planning Board, MUA, and town officials after NJDEP's approval of CEA #4 in 2004. Therefore, direct contact (ingestion or dermal contact) with potable groundwater for onsite workers and offsite residents is incomplete.

2. *Air (Indoors)*: Current offsite shallow groundwater concentrations do not trigger a VI investigation (concentrations are below current applicable screening levels). SSSG concentrations, where measured, have generally not exceeded current applicable VI screening levels and demonstrate a significant reduction over time at paired sample locations (i.e., more than an order of magnitude). Indoor air concentrations measured in offsite residential structures located over the offsite shallow groundwater area have either been non-detect or do not exceed current IARS. An indoor air sample has been collected from the first floor of the onsite building on an annual basis since 2015 with no detections of the 10 Site-related VOCs. However, a VI mitigation program has been in place since June 2008 to address the potential VI pathway.
3. *Soils*: Because the day-to-day operations of the onsite worker (office worker) do not include intrusive activities, direct contact (ingestion or dermal contact) with subsurface soils is not anticipated and is incomplete. In addition, procedures are in place to ensure the appropriate personal protective equipment (PPE) is used if soils are disturbed. Workers have received special OSHA-required health and safety training as well as Site-specific health and safety training to prevent exposures to contaminants and to protect against other health and safety hazards. A Site-specific HASP is in place that includes extensive procedures and mandated PPE to prevent contaminant exposure. Also, workers who engage in intrusive activities in impacted areas are required to be OSHA 1910.120 trained. Likewise, if surface soils contamination exists in an area of the PLW Site, which is not routinely accessible to onsite workers due to institutional or

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physical controls (e.g., locked areas or asphalt caps), then exposure pathways in those areas are also incomplete.

4. *Surface Water and Sediments*: The potential exposure pathways related to food would be indirect exposure from fish or aquatic organisms in surface water. However, exposure pathways associated with food are incomplete for Acid Brook. As a result of its small size and intermittent flows, Acid Brook does not support edible size fish populations that would support human health consumption pathways through trespasser or subsistence exposure scenarios (EHS Support, 2024).

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4. Can the **exposures** from any of the complete pathways identified in #3 be reasonably expected to be **“significant”**<sup>4</sup> (i.e., potentially “unacceptable” because exposures can be reasonably expected to be: 1) greater in magnitude (intensity, frequency and/or duration) than assumed in the derivation of the acceptable “levels” (used to identify the “contamination”); or 2) the combination of exposure magnitude (perhaps even though low) and contaminant concentrations (which may be substantially above the acceptable “levels”) could result in greater than acceptable risks)?

    X If no (exposures can not be reasonably expected to be significant (i.e., potentially “unacceptable”) for any complete exposure pathway) - skip to #6 and enter “YE” status code after explaining and/or referencing documentation justifying why the exposures (from each of the complete pathways) to “contamination” (identified in #3) are not expected to be “significant.”

       If yes (exposures could be reasonably expected to be “significant” (i.e., potentially “unacceptable”) for any complete exposure pathway) - continue after providing a description (of each potentially “unacceptable” exposure pathway) and explaining and/or referencing documentation justifying why the exposures (from each of the remaining complete pathways) to “contamination” (identified in #3) are not expected to be “significant.”

       If unknown (for any complete pathway) - skip to #6 and enter “IN” status code

Rationale and Reference(s):

### **SURFACE SOIL EXPOSURE PATHWAYS**

As described earlier, most AOCs where constituents in onsite surface soils exceed applicable SRS are covered by asphalt, concrete, vegetation, or cover material. Corrective measures have been completed at various onsite and offsite areas to address impacts based on the results of the RIs. Soil at the remaining AOCs associated with the Site are being evaluated and addressed as part of the CMS and WR CMS. Chemours continues to work with the Agencies to finalize both CMS documents and corrective measures scope of work to address Site-related constituents in soils at areas across the former manufacturing areas. Site access restrictions (Site boundary fencing, security patrols, no trespassing signage) are ongoing. Best management practices are also in place onsite and utilize engineering controls, such as vegetation, in areas not covered by asphalt or concrete. In addition to these covers, institutional controls are in place to ensure that soils best management practices are used if soils are disturbed.

As previously discussed, the Ramapo Mountain State Forest area is limited in size (approximately 1/3 acres) and located adjacent to the Site is in an isolated area that is densely vegetated with uneven and rugged terrain. Access to this area is limited due to these conditions. Access to Wanaque River bank soils by onsite trespassers is limited due to security fencing, presence of vegetation, marshy areas, and steep embankments. Access to offsite bank soils is limited due to fencing erected by the Borough of Pompton Lakes, thick wetlands vegetation, numerous trees, and steep banks. This area is also undesirable because of biologic hazards present along the banks (e.g., poison ivy).

Remedial measures have been proposed for bank soils in onsite and offsite portions of Wanaque River. Remedial goals (April 2019 WR CMS) have been derived for a future recreational trespassing

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<sup>4</sup> If there is any question on whether the identified exposures are “significant” (i.e., potentially “unacceptable”) consult a human health Risk Assessment specialist with appropriate education, training and experience.

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scenario which provide a conservative comparison point to evaluate the significance of potential bank soils exposure that may occur offsite. Maximum detected concentrations of mercury in offsite banks soils (92.5 mg/kg, see Appendix E) are less than the recreational trespasser screening levels derived for young child (110 mg/kg), older child/youth (570 mg/kg), and adult (910 mg/kg) recreational user which were based on an assumed exposure frequency of 84 days/year for 4, 10, and 30 years, respectively. The remedial goals are considered conservative assumptions for this evaluation based on the current exposure conditions described above. As a result, the potential for exposure with impacted surface soils is not significant.

**SURFACE WATER EXPOSURE PATHWAYS – ACID BROOK**

NJDEP’s FW2 HH SWQC are derived based the consumption of fish and water. However, Acid Brook is not a drinking water source for human receptors and does not provide permanent aquatic habitats capable of supporting edible sized fish populations for recreational or subsistence consumption exposure scenarios. The small, shallow size and intermittent flows of Acid Brook also limit the potential for primary contact recreation offsite. Access to Acid Brook at the PLW Site is secured by fencing and no trespassing signage; further reducing the potential for primary contact recreation.

In support of the Acid Brook groundwater-to-surface water pathway investigation, Site-specific human health SLs (HH SLs) were derived to evaluate the potential exposure to Site-related VOCs detected in surface water samples from Acid Brook based on exposure pathways that may occur in Acid Brook onsite and offsite directly downgradient of the PLW Site (EHS Support, 2024). A summary of the HH SLs calculated for each exposure scenario is provided in the table below. Each of the screening levels shown are the lowest (or most protective) value calculated for each receptor (adult, adolescent, or child) and endpoint (cancer or non-cancer).

Constituent	Onsite Site-Specific HH SL (in ug/L)	Offsite Site-Specific HH SL (in ug/L)
PCE	23,200	1,740
Vinyl Chloride	460	0.90

Given that PCE and vinyl chloride concentrations detected in Acid Brook (see Appendix C) did not exceed the Site-specific HH SLs that were derived using highly conservative exposure assumptions, the potential for exposure to Site-related VOCs in surface water from Acid Brook is not significant.

**SURFACE WATER AND SEDIMENT EXPOSURE PATHWAYS – WANAQUE RIVER**

Due to access constraints (i.e., PLW Site boundary is fenced with security services monitoring in place), unappealing characteristics, and fish advisory in place by NJDEP, the potential for exposure to impacted Wanaque River surface water and sediments is not significant.

As described previously, access restrictions (Site boundary fencing, security patrols, no trespassing signage) are in place to control and limit unauthorized personnel from entering the Site and onsite portions of Wanaque River. Access to offsite portions of Wanaque River is limited by the presence of thick vegetation, marshy areas, and steep embankments. Wanaque River is shallow and the presence of low bridges spanning the river prohibits the use of most boats. Additionally, the shallow nature of Wanaque River makes swimming difficult and no approved beach areas exist to facilitate swimming. To the extent that unauthorized recreators may use the river, such use would be restricted to warm weather months.

With respect to direct contact surface water exposure pathways, maximum detected total mercury concentrations in Wanaque River surface water (0.000203 mg/L, see Appendix D) are less than

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conservative, risk-based recreational surface water screening levels (0.37 mg/L) derived using similar assumptions as that used for Acid Brook (48 days/year).

Although areas with elevated sediment concentrations may represent a potential direct contact exposure during shoreline recreation, sediments with elevated total mercury concentrations are limited to areas of sediment deposition adjacent to the Site to the former dam where access is controlled. Total mercury concentrations in sediment samples collected downstream of the former dam do not indicate a potential human health direct contact exposure.

Fishing has not been routinely observed in offsite portions of Wanaque River downstream of the Site. Wanaque River downstream of the Site is designated by NJDEP as freshwater trout maintenance (FW2-TM). Hatchery-raised trout are stocked as adults and are not likely to hold over the warmer summer months because shallow water depths of Wanaque River do not provide deep pools needed to provide cold-water refuge necessary for trout to survive warm water temperatures and low dissolved oxygen conditions during the summer.

A fish community survey conducted by NJDEP in 2018 did not identify edible non-trout species of a size suitable for consumption. Recreators are more likely to access Wanaque River at downstream locations that are more easily accessible; are near locations stocked by NJDEP in the fall and spring months; and contain more desirable fish for anglers (bass, trout, etc. of sufficient size and quantity). NJDEP has issued fish consumption advisories for New Jersey's freshwater bodies (<https://dep.nj.gov/dsr/fish-advisories-studies/>). Fishing licenses are required for all fishing activities. New Jersey issues a regulation book, which informs individuals as to the limitation on fish ingestion for various water bodies, including Wanaque River, and the minimum fish size allowed to keep (e.g., 9 inches for trout species). Because of these factors, current human exposure is not significant.

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5. Can the “significant” **exposures** (identified in #4) be shown to be within **acceptable** limits?

\_\_\_\_\_ If yes (all “significant” exposures have been shown to be within acceptable limits)  
–continue and enter “YE” after summarizing and referencing documentation  
justifying why all “significant” exposures to “contamination” are within acceptable  
limits (e.g., a site-specific Human Health Risk Assessment).

\_\_\_\_\_ If no (there are current exposures that can be reasonably expected to be  
“unacceptable”)- continue and enter “NO” status code after providing a  
description of each potentially “unacceptable” exposure.

\_\_\_\_\_ If unknown (for any potentially “unacceptable” exposure) - continue and enter  
“IN” status code

Rationale and Reference(s):

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6. Check the appropriate RCRIS status codes for the Current Human Exposure Under Control EI event code (CA725), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below and attach appropriate supporting documentation as well as a map of the facility).

**YE** - Yes, "Current Human Exposures Under Control" has been verified. Based on a review of the information contained in this EI determination, it has been determined that the "Current Human Exposures" are expected to be "Under Control" at the **Pompton Lakes Works Site**, EPA ID # **NJD00217346**, located at **2000 Cannonball Road, Pompton Lakes, New Jersey 07442, under current and reasonably expected conditions**. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

**NO** - Unacceptable migration of contaminated groundwater is observed or expected.

**IN** - More information is needed to make a determination.

**Prepared by:** Chemours

**Reviewed by:** **STEVEN FERREIRA** Digitally signed by STEVEN FERREIRA  
Date: 2025.08.05 06:50:03 -04'00'  
\_\_\_\_\_  
Steven Ferreira  
Remedial Project Manager  
New Jersey Projects/State Coordination Section, EPA Region 2

**Approved by:** **Katz, Ira-Perry** Digitally signed by Katz, Ira-Perry  
Date: 2025.08.05 07:16:29 -04'00'  
\_\_\_\_\_  
Perry Katz, Chief  
New Jersey Projects/State Coordination Section, EPA Region 2

**Locations where References may be found:**

Pompton Lakes Public Library, 333 Wanaque Avenue, Pompton Lakes NJ 07442

EPA Region 2 Project Webpage: <https://www.epa.gov/nj/chemours-pompton-lakes-works-site-pompton-lakes-nj>

NJDEP, Office of Records Custodian, Attn: Public Records Requests, 401 East State Street, P.O. Box 442, Trenton, New Jersey 08625-0442, (609) 341-3121, <http://www.nj.gov/dep/opra>

**Contact telephone and e-mail numbers:**

EPA	Steve Ferreira, 212-637-3759, <a href="mailto:ferreira.steve@epa.gov">ferreira.steve@epa.gov</a>
NJDEP	Kristina Merola, 609-940-4475, <a href="mailto:kristina.merola@dep.state.nj.us">kristina.merola@dep.state.nj.us</a>
Chemours	David Epps, 973-492-7703, <a href="mailto:David.E.Epps@chemours.com">David.E.Epps@chemours.com</a>

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**FIGURES**

- Figure 1      Site Location Map  
Figure 2      Former Manufacturing Areas

**APPENDICES**

- Appendix A    Table 3 from *2024 Annual Groundwater Report*  
Appendix B    Summary of Onsite Soils Data Detections  
Appendix C    Table 5 from *Draft Acid Brook Groundwater-to-Surface Water Pathway Investigation Report*  
Appendix D    Wanaque River Surface Water Dataset (Phase I and II RI)  
Appendix E    Wanaque River Bank Soils and Sediments Dataset  
Appendix F    Summary of Total Mercury Concentrations in Ramapo River Sediments

**REFERENCES**

Groundwater

DuPont Environmental Remediation Services (DERS). July 21, 1993. *Groundwater Remedial Action Plan*.

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Surface Water

URS Corporation (URS). July 30, 2010 (revised 2011). *Wanaque River Remedial Investigation Report.*

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URS. December 2, 2014. *Wanaque River Interim Remedial Measure Data Collection Activities Report.*

Chemours. April 30, 2019. *Draft Wanaque River Corrective Measures Study.*

EHS Support. April 2024. *Draft Acid Brook Groundwater-to-Surface Water Pathway Investigation Report.*

Sediment

URS. July 30, 2010 (revised 2011). *Wanaque River Remedial Investigation Report.*

URS. October 12, 2012. *Wanaque River Investigation Technical Status Report.*

URS. December 2, 2014. *Wanaque River Interim Remedial Measure Data Collection Activities Report.*

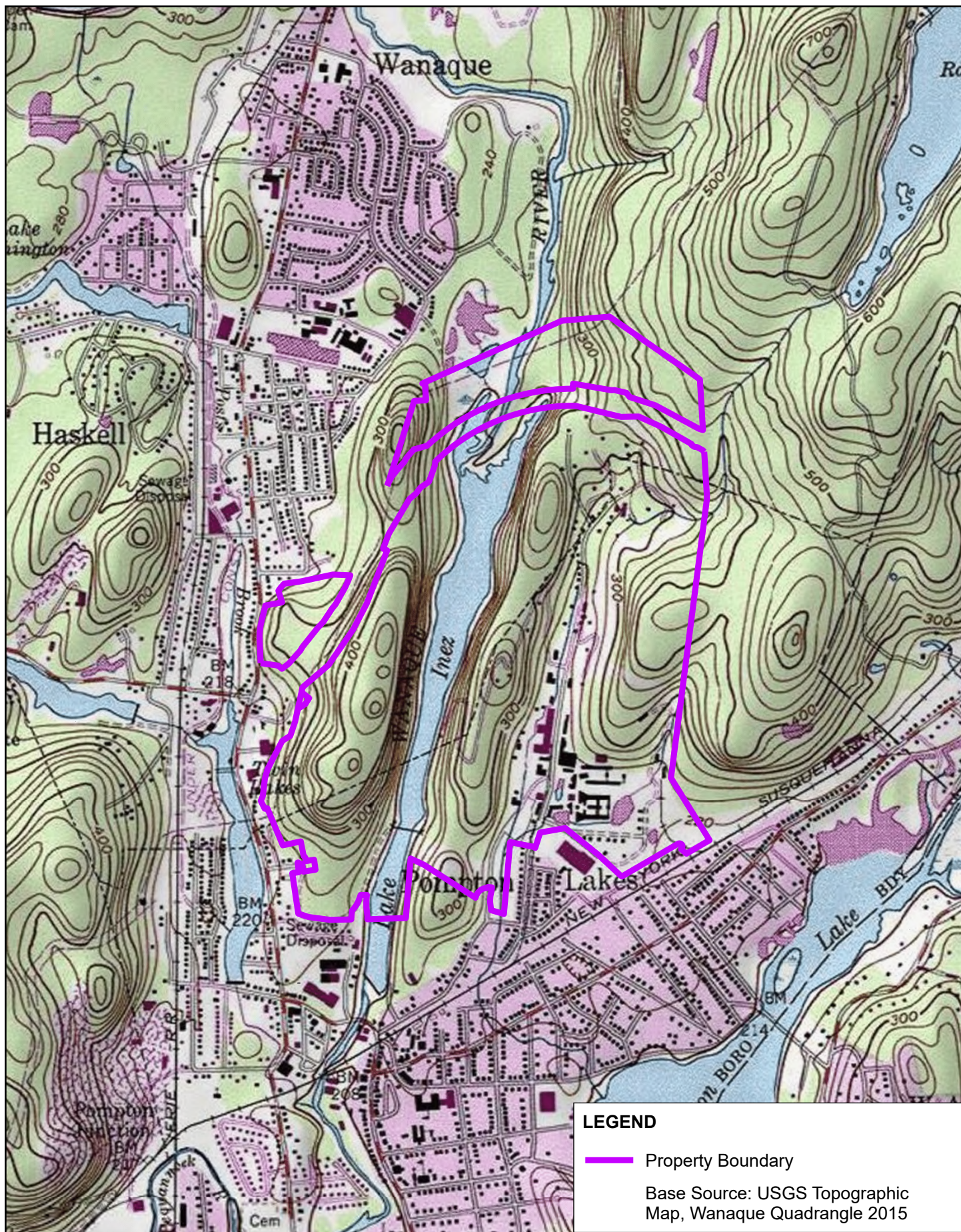
AECOM. July 10, 2015. *Ramapo-Pompton River Sediment Investigation Report.*

Chemours. April 30, 2019. *Draft Wanaque River Corrective Measures Study.*

Air (Outdoors)

NJDEP. May 11, 2010. *Pompton Lakes PCE/TCE Air Dispersion Modeling and Risk Assessment.*

## FIGURES



**LEGEND**

— Property Boundary

Base Source: USGS Topographic Map, Wanaque Quadrangle 2015



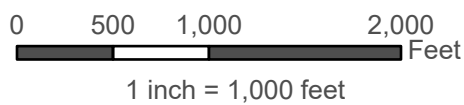
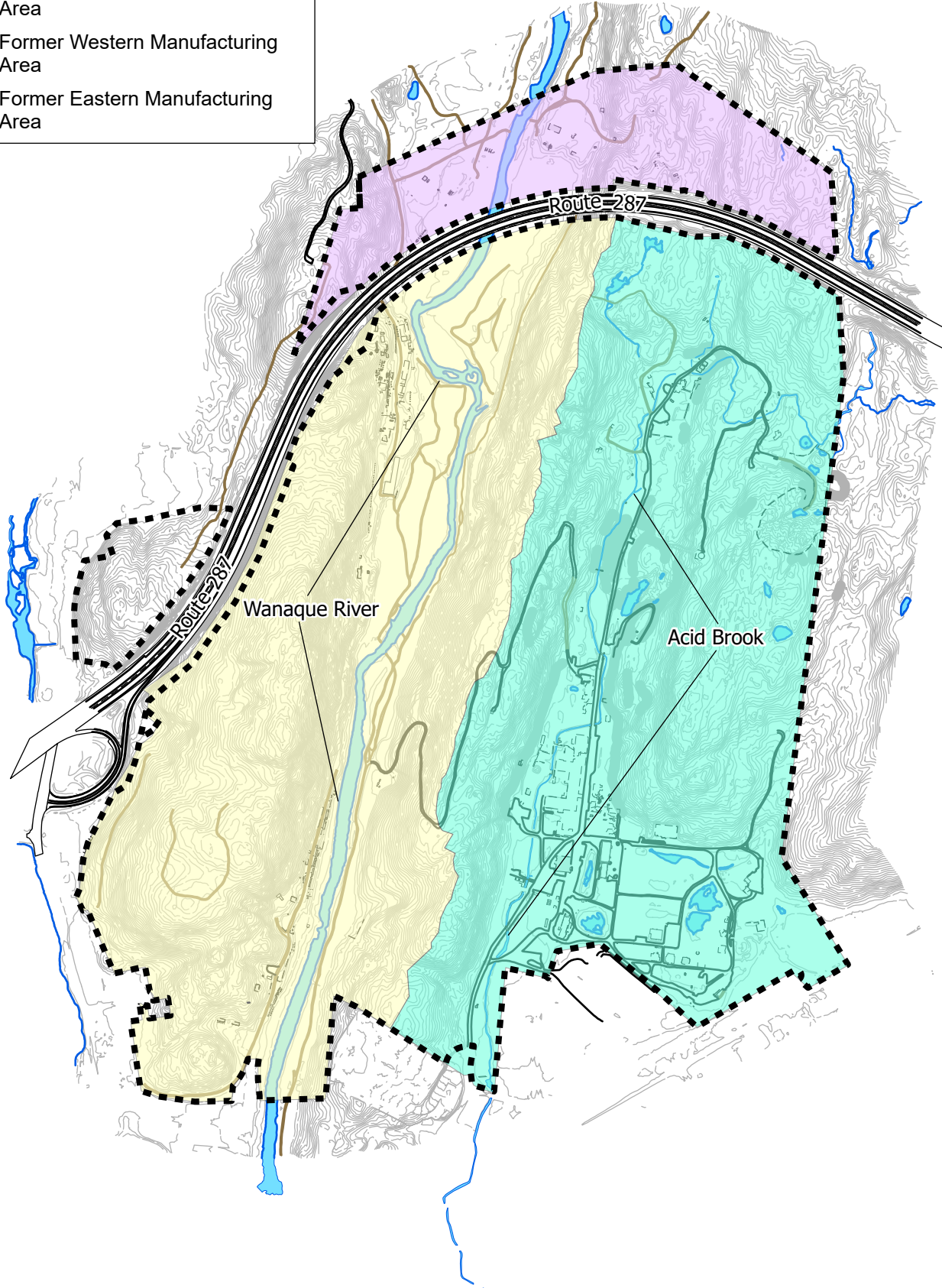
1 inch = 1,500 feet

**SITE LOCATION MAP**

FIGURE 1

**LEGEND**

- ■ ■ ■ Site Boundary
- Former Northern Manufacturing Area
- Former Western Manufacturing Area
- Former Eastern Manufacturing Area



**FORMER  
MANUFACTURING AREAS**

**FIGURE 2**

## **APPENDICES**

**APPENDIX A**

**Table 3 from *2024 Annual Groundwater Monitoring Report***

Table 3  
 2024 Groundwater Analytical Results - Site COCs  
 Pompton Lakes Works  
 Pompton Lakes, New Jersey

Region		North Plant	North Plant	Middle Plant	Middle Plant	South Plant	South Plant	South Plant	South Plant	South Plant	South Plant	South Plant	South Plant	South Plant	South Plant	South Plant	South Plant		
Alluvial Zone		Shallow	Shallow	Intermediate	Intermediate	Intermediate	Intermediate	Deep	Deep	Shallow	Shallow	Intermediate	Intermediate	Deep	Deep	Deep	Deep		
Depth to Top of PDB from TOC (feet)		13.61	13.61	23.82	23.82	68.44	68.44	102.27	102.27	20.50	20.50	44.29	44.29	71.80	71.80	71.80	71.80		
Depth to Bottom of PDB from TOC (feet)		15.11	15.11	25.32	25.32	69.94	69.94	103.77	103.77	22.00	22.00	45.79	45.79	74.80	74.80	74.80	74.80		
Well ID		16	16	13	13	107-I	107-I	107-D	107-D	5A	5A	5	5	105A-I	105A-I	105A-I	105A-I		
Sample Date		05/22/2024	11/20/2024	05/22/2024	11/20/2024	05/22/2024	11/20/2024	05/22/2024	11/20/2024	05/22/2024	11/20/2024	05/22/2024	11/20/2024	05/22/2024	05/22/2024	11/20/2024	11/20/2024		
Lab Sample ID		L2428578-13	L2468389-13	L2428578-14	L2468389-14	L2428578-16	L2468389-16	L2428578-15	L2468389-15	L2428578-17	L2468389-17	L2428578-18	L2468389-18	L2428578-19	L2428578-20	L2468389-19	L2468389-20		
Units	Analyte	2020 GWIIA	2025 GWIIA													Duplicate		Duplicate	
UG/L	Tetrachloroethene	1	0.4	ND (0.18)	ND (0.18)	ND (1.8)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	8.5	4.9	ND (0.36)	ND (0.36)	ND (0.36)	ND (0.18)
UG/L	Trichloroethene	1	0.28	ND (0.18)	ND (0.18)	3.5 J	0.71	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	0.19 J	0.19 J	2.8	2.6	1.0	0.99 J	1.4	1.4
UG/L	1,1,1-Trichloroethane	30	1,900	ND (0.16)	ND (0.16)	ND (1.6)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.32)	ND (0.16)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.16)
UG/L	1,1-Dichloroethane	50	22	ND (0.21)	ND (0.21)	ND (2.1)	1.5	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.42)	ND (0.21)	ND (0.42)	ND (0.42)	ND (0.42)	0.29 J
UG/L	1,2-Dichloroethane	2	0.3	ND (0.13)	ND (0.13)	ND (1.3)	ND (0.13)	0.88	0.20 J	0.22 J	ND (0.13)	ND (0.13)	ND (0.13)	7.8	0.85	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.13)
UG/L	1,1-Dichloroethene	1	31	ND (0.17)	ND (0.17)	3.6 J	3.0	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.34)	ND (0.17)	0.71 J	0.70 J	0.90 J	0.96
UG/L	cis-1,2 Dichloroethene	70	11	ND (0.19)	ND (0.19)	860	510	3.5	3.5	ND (0.19)	0.22 J	0.71	0.79	230	210	140	140	170	180
UG/L	trans-1,2-Dichloroethene	100	100	ND (0.16)	ND (0.16)	21	3.8 J	1.9	1.8 J	ND (0.16)	ND (0.16)	0.16 J	0.20 J	4.1	3.2 J	51	50	66	69
UG/L	Carbon Tetrachloride	1	1	ND (0.13)	ND (0.13)	ND (1.3)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.27)	ND (0.13)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.13)
UG/L	Vinyl Chloride	1	0.035	ND (0.07)	ND (0.07)	56	44	0.45	0.35	0.09 J	0.33	0.81	0.66	0.57	0.77	14	17	14	15

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 2025 GWIIA = GWIIA from N.J.A.C. (recently amended February 3, 2025)  
 Above 2025 GWIIA (where there is a detection of constituent)  
 ND = not detected at specified detection limit (met GWIIA in place at time of sample collection)  
 J = Estimated value between MDL and PQL  
 MDL = Method detection limit  
 PQL = Practical quantitation limit  
 PDB = Passive Diffusion Bag  
 TOC = Top of Casing

Table 3  
 2024 Groundwater Analytical Results - Site COCs  
 Pompton Lakes Works  
 Pompton Lakes, New Jersey

Region		South Plant	South Plant	South Plant	South Plant	South Plant	South Plant	South Plant	South Plant	South Plant	South Plant	South Plant	South Plant	South Plant	South Plant	South Plant	Offsite	Offsite	Offsite	Offsite			
Alluvial Zone		Intermediate	Intermediate	Deep	Deep	Shallow	Shallow	Intermediate	Intermediate	Deep	Deep	Shallow	Shallow	Intermediate	Intermediate	Deep	Deep	Shallow	Shallow	Intermediate	Intermediate		
Depth to Top of PDB from TOC (feet)		78.01	78.01	88.32	88.32	33.00	33.00	48.64	48.64	72.23	72.23	36.46	36.46	58.74	58.74	85.52	85.52	17.15	17.15	45.70	45.70		
Depth to Bottom of PDB from TOC (feet)		79.51	79.51	89.82	89.82	34.50	34.50	50.14	50.14	73.73	73.73	37.96	37.96	60.24	60.24	87.02	87.02	18.65	18.65	47.20	47.20		
Well ID		125-I	125-I	125-D	125-D	3A	3A	2	2	102-I	102-I	52	52	53	53	54	54	25	25	25-I	25-I		
Sample Date		05/22/2024	11/20/2024	05/22/2024	11/20/2024	05/22/2024	11/20/2024	05/22/2024	11/20/2024	05/22/2024	11/20/2024	05/22/2024	11/20/2024	05/22/2024	11/20/2024	05/22/2024	11/20/2024	05/21/2024	11/19/2024	05/21/2024	11/19/2024		
Lab Sample ID		L2428578-21	L2468389-21	L2428578-22	L2468389-22	L2428578-23	L2468389-23	L2428578-24	L2468389-24	L2428578-25	L2468389-25	L2428578-26	L2468389-26	L2428578-27	L2468389-27	L2428578-28	L2468389-28	L2428244-14	L2468074-12	L2428244-13	L2468074-11		
Units	Analyte	2020 GWIIA	2025 GWIIA																				
UG/L	Tetrachloroethene	1	0.4	44	4.4	ND (0.18)	ND (0.18)	1.0	0.30 J	9.2	14	5.5	ND (0.45)	ND (0.18)	ND (0.18)	0.59	0.44 J	12	4.8	0.48 J	0.84	13	18
UG/L	Trichloroethene	1	0.28	20	7.2	2.8	0.22 J	ND (0.18)	ND (0.18)	1.1	1.8	13	2.1	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	8.9	4.6	ND (0.18)	ND (0.18)	4.0	5.0
UG/L	1,1,1-Trichloroethane	30	1,900	0.34 J	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.79)	ND (0.40)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)
UG/L	1,1-Dichloroethane	50	22	0.60 J	0.38 J	0.76	1.1	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (1.0)	ND (0.52)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)
UG/L	1,2-Dichloroethane	2	0.3	1.7	0.65	1.3	0.49 J	0.48 J	0.30 J	0.24 J	ND (0.13)	ND (0.66)	0.44 J	0.57	0.77	0.71	0.52	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	0.47 J	0.18 J
UG/L	1,1-Dichloroethene	1	31	1.5	0.93	0.80	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	1.7 J	0.73 J	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	0.17 J	0.20 J	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)
UG/L	cis-1,2 Dichloroethene	70	11	3.7	35	55	2.1	ND (0.19)	ND (0.19)	0.31 J	0.51	630	420	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	80	120	ND (0.19)	ND (0.19)	1.1	1.3
UG/L	trans-1,2-Dichloroethene	100	100	ND (0.16)	0.26 J	0.76	0.85	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	5.9	3.2 J	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	0.28 J	0.22 J	ND (0.16)	ND (0.16)	ND (0.16)
UG/L	Carbon Tetrachloride	1	1	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.67)	ND (0.34)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)
UG/L	Vinyl Chloride	1	0.035	0.14 J	0.88	11	1.4	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	150	130	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	0.10 J	0.12 J	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)

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 Above 2025 GWIIA (where there is a detection of constituent)  
 ND = not detected at specified detection limit (met GWIIA in place at tim  
 J = Estimated value between MDL and PQL  
 MDL = Method detection limit  
 PQL = Practical quantitation limit  
 PDB = Passive Diffusion Bag  
 TOC = Top of Casing

Table 3  
 2024 Groundwater Analytical Results - Site COCs  
 Pompton Lakes Works  
 Pompton Lakes, New Jersey

Region	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite			
Alluvial Zone	Deep	Deep	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Shallow	Shallow	Intermediate	Intermediate	Deep	Deep	Shallow	Shallow	Intermediate	Intermediate	Deep	Deep				
Depth to Top of PDB from TOC (feet)	72.90	72.90	20.60	20.60	78.60	78.60	10.84	10.84	10.84	10.84	75.83	75.83	148.23	148.23	22.50	22.50	65.20	65.20	141.60	141.60				
Depth to Bottom of PDB from TOC (feet)	74.40	74.40	22.10	22.10	80.10	80.10	13.84	13.84	13.84	13.84	77.33	77.33	149.73	149.73	24.00	24.00	66.70	66.70	143.10	143.10				
Well ID	25-D	25-D	27	27	27-I	27-I	28	28	28	28	28-I	28-I	28-D	28-D	128	128	128-I	128-I	128-D	128-D				
Sample Date	05/21/2024	11/19/2024	05/21/2024	11/19/2024	05/21/2024	11/19/2024	05/22/2024	05/22/2024	11/20/2024	11/20/2024	05/22/2024	11/20/2024	05/22/2024	11/20/2024	05/21/2024	11/19/2024	05/21/2024	11/19/2024	05/21/2024	11/19/2024				
Lab Sample ID	L2428244-15	L2468074-13	L2428244-22	L2468074-20	L2428244-21	L2468074-19	L2428578-11	L2428578-12	L2468389-11	L2468389-12	L2428578-10	L2468389-10	L2428578-09	L2468389-09	L2428244-27	L2468074-25	L2428244-28	L2468074-26	L2428244-26	L2468074-24				
Units	Analyte	2020 GWIIA	2025 GWIIA						Duplicate	Duplicate														
UG/L	Tetrachloroethene	1	0.4	0.56	0.26 J	ND (0.18)	ND (0.18)	4.2	5.7	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	1.7	1.6	ND (0.72)	ND (0.90)	ND (0.18)	ND (0.18)			
UG/L	Trichloroethene	1	0.28	1.3	1.9	ND (0.18)	ND (0.18)	0.62	0.83	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	0.55	3.0	2.6	1.3 J	ND (0.18)	ND (0.18)			
UG/L	1,1,1-Trichloroethane	30	1,900	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.63)	ND (0.79)	ND (0.16)	ND (0.16)		
UG/L	1,1-Dichloroethane	50	22	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	3.3	5.0	ND (0.21)	ND (0.21)		
UG/L	1,2-Dichloroethane	2	0.3	0.22 J	0.75	ND (0.13)	ND (0.13)	23	15	0.18 J	0.14 J	ND (0.13)	ND (0.13)	ND (0.13)	0.41 J	5.9	7.2	1.2	1.0	2.0	2.1 J	3.0	3.8	
UG/L	1,1-Dichloroethene	1	31	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	4.5	5.6	ND (0.17)	ND (0.17)	
UG/L	cis-1,2 Dichloroethene	70	11	0.73	0.91	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	0.77	5.6	660	940	0.75	ND (0.19)
UG/L	trans-1,2-Dichloroethene	100	100	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	0.82	3.4	180	230	3.1	4.7
UG/L	Carbon Tetrachloride	1	1	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.54)	ND (0.67)	ND (0.13)	ND (0.13)	
UG/L	Vinyl Chloride	1	0.035	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	0.11 J	0.14 J	0.07 J	ND (0.07)	ND (0.07)	88	170	3.5	1.3	

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Table 3  
 2024 Groundwater Analytical Results - Site COCs  
 Pompton Lakes Works  
 Pompton Lakes, New Jersey

Region	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite			
Alluvial Zone	Shallow	Shallow	Intermediate	Intermediate	Deep	Deep	Shallow	Shallow	Shallow	Shallow	Shallow	Intermediate	Intermediate	Deep	Deep	Bedrock	Bedrock	Shallow	Shallow			
Depth to Top of PDB from TOC (feet)	18.58	18.58	69.60	69.60	129.05	129.05	8.00	8.00	17.30	8.00	8.00	55.00	55.00	93.00	93.00	141.00	141.00	23.50	23.50			
Depth to Bottom of PDB from TOC (feet)	20.08	20.08	71.10	71.10	130.55	130.55	11.00	11.00	18.80	11.00	11.00	56.50	56.50	94.50	94.50	142.50	142.50	25.00	25.00			
Well ID	130	130	130-I	130-I	130-D	130-D	131	131	131	131	131	131-I	131-I	131-D	131-D	131-R	131-R	132	132			
Sample Date	05/21/2024	11/19/2024	05/21/2024	11/19/2024	05/21/2024	11/19/2024	05/21/2024	05/21/2024	05/21/2024	11/19/2024	11/19/2024	05/21/2024	11/19/2024	05/21/2024	11/19/2024	05/21/2024	11/19/2024	05/21/2024	11/19/2024			
Lab Sample ID	L2428244-09	L2468074-08	L2428244-07	L2468074-06	L2428244-08	L2468074-07	L2428244-04	L2428244-05	L2428244-06	L2468074-04	L2468074-05	L2428244-02	L2468074-02	L2428244-03	L2468074-03	L2428244-01	L2468074-01	L2428244-19	L2468074-17			
Units	Analyte	2020 GWIIA	2025 GWIIA							Duplicate			Duplicate									
UG/L	Tetrachloroethene	1	0.4	4.2	2.0	0.49 J	ND (0.18)	ND (0.18)	ND (0.18)	2.3	2.5	3.3	0.41 J	0.41 J	ND (0.18)	ND (0.18)	1.5	1.4	ND (0.18)	ND (0.18)	2.4	3.8
UG/L	Trichloroethene	1	0.28	0.55	0.51	57	22	0.20 J	ND (0.18)	0.23 J	0.22 J	0.28 J	0.21 J	0.21 J	ND (0.18)	ND (0.18)	1.9	1.8	ND (0.18)	ND (0.18)	0.50	1.2
UG/L	1,1,1-Trichloroethane	30	1,900	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)
UG/L	1,1-Dichloroethane	50	22	ND (0.21)	ND (0.21)	1.5	1.2	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)
UG/L	1,2-Dichloroethane	2	0.3	ND (0.13)	ND (0.13)	0.68	0.50	0.19 J	2.2	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	4.3	3.4	9.2	7.2	ND (0.13)	0.66
UG/L	1,1-Dichloroethene	1	31	ND (0.17)	ND (0.17)	2.6	2.4	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	0.20 J	0.32 J	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)
UG/L	cis-1,2 Dichloroethene	70	11	0.59	0.59	80	83	ND (0.19)	0.20 J	ND (0.19)	0.22 J	0.37 J	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	1.2	1.3	ND (0.19)	ND (0.19)	ND (0.19)	0.29 J
UG/L	trans-1,2-Dichloroethene	100	100	ND (0.16)	0.19 J	3.4	2.3	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	0.36 J	0.48 J	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)
UG/L	Carbon Tetrachloride	1	1	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)
UG/L	Vinyl Chloride	1	0.035	ND (0.07)	ND (0.07)	64	69	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	0.72	0.79	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)

**Notes:**  
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**Above 2025 GWIIA (where there is a detection of constituent)**  
 ND = not detected at specified detection limit (met GWIIA in place at tim  
 J = Estimated value between MDL and PQL  
 MDL = Method detection limit  
 PQL = Practical quantitation limit  
 PDB = Passive Diffusion Bag  
 TOC = Top of Casing

Table 3  
 2024 Groundwater Analytical Results - Site COCs  
 Pompton Lakes Works  
 Pompton Lakes, New Jersey

Region		Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite		
Alluvial Zone		Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Deep	Deep	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Intermediate	Intermediate	Shallow	Shallow		
Depth to Top of PDB from TOC (feet)		81.10	81.10	13.43	13.43	44.61	44.61	94.54	94.54	16.69	16.69	41.20	41.20	12.23	12.23	42.14	42.14	76.82	76.82	18.14	18.14		
Depth to Bottom of PDB from TOC (feet)		82.60	82.60	14.93	14.93	46.11	46.11	96.04	96.04	18.19	18.19	42.70	42.70	13.73	13.73	43.64	43.64	78.32	78.32	19.64	19.64		
Well ID		132-I	132-I	137-S	137-S	137-I	137-I	137-D	137-D	138-S	138-S	138-I	138-I	139-S	139-S	139-I	139-I	140-I	140-I	146-S	146-S		
Sample Date		05/21/2024	11/19/2024	05/21/2024	11/19/2024	05/21/2024	11/19/2024	05/21/2024	11/19/2024	05/22/2024	11/20/2024	05/22/2024	11/20/2024	05/21/2024	11/19/2024	05/21/2024	11/19/2024	05/22/2024	11/20/2024	05/21/2024	11/19/2024		
Lab Sample ID		L2428244-20	L2468074-18	L2428244-25	L2468074-23	L2428244-24	L2468074-22	L2428244-23	L2468074-21	L2428578-05	L2468389-05	L2428578-06	L2468389-06	L2428244-12	L2468074-10	L2428244-11	L2468074-09	L2428578-01	L2468389-01	L2428244-16	L2468074-14		
Units	Analyte	2020 GWIIA	2025 GWIIA																				
UG/L	Tetrachloroethene	1	0.4	55	33	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	2.5	1.8	0.67 J	4.3	2.7	5.6	4.8	3.4	ND (0.18)	ND (0.18)	ND (0.18)	0.19 J
UG/L	Trichloroethene	1	0.28	15	11	0.22 J	0.30 J	0.33 J	0.22 J	1.2	1.1	0.48 J	0.56	3.2	14	0.78	2.8	2.0	2.0	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)
UG/L	1,1,1-Trichloroethane	30	1,900	0.68	0.44 J	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.32)	ND (0.16)	ND (0.16)	0.30 J	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)
UG/L	1,1-Dichloroethane	50	22	0.29 J	0.33 J	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	1.2 J	0.25 J	ND (0.21)	ND (0.21)	0.36 J	0.44 J	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)
UG/L	1,2-Dichloroethane	2	0.3	7.3	7.9	0.17 J	0.72	2.1	0.97	3.2	4.0	0.17 J	ND (0.13)	ND (0.26)	2.3	ND (0.13)	0.68	4.7	5.0	13	16	ND (0.13)	ND (0.13)
UG/L	1,1-Dichloroethene	1	31	1.3	1.6	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	0.85 J	0.26 J	ND (0.17)	1.1	1.1	1.7	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)
UG/L	cis-1,2 Dichloroethene	70	11	12	13	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	0.79	1.5	0.45 J	0.35 J	160	28	ND (0.19)	1.8	0.33 J	0.43 J	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)
UG/L	trans-1,2-Dichloroethene	100	100	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	0.31 J	0.31 J	46	16 J	ND (0.16)	ND (0.16)	ND (0.16)	0.20 J	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)
UG/L	Carbon Tetrachloride	1	1	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.27)	ND (0.13)	ND (0.13)	0.17 J	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)
UG/L	Vinyl Chloride	1	0.035	0.27	0.32	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	140	1.9	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	0.46	0.42	ND (0.07)	ND (0.07)

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 Above 2025 GWIIA (where there is a detection of constituent)  
 ND = not detected at specified detection limit (met GWIIA in place at tim  
 J = Estimated value between MDL and PQL  
 MDL = Method detection limit  
 PQL = Practical quantitation limit  
 PDB = Passive Diffusion Bag  
 TOC = Top of Casing

Table 3  
 2024 Groundwater Analytical Results - Site COCs  
 Pompton Lakes Works  
 Pompton Lakes, New Jersey

Region		Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite	Offsite						
Alluvial Zone		Intermediate	Intermediate	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow						
Depth to Top of PDB from TOC (feet)		75.50	75.50	21.99	21.99	20.98	20.98	14.11	14.11	8.09	8.09	10.27	10.27	59.25	59.25	12.50	14.00						
Depth to Bottom of PDB from TOC (feet)		77.00	77.00	23.49	23.49	22.48	22.48	15.61	15.61	9.59	9.59	11.77	11.77	60.75	60.75	14.00	15.50						
Well ID		147-I	147-I	148-S	148-S	149-S	149-S	150-S	150-S	151-S	151-S	152-S	152-S	152-I	152-I	153-S	153-S	FB-131	FB-141I	FB-153S	FB-138S		
Sample Date		05/22/2024	11/20/2024	05/21/2024	11/19/2024	05/21/2024	11/19/2024	05/22/2024	11/20/2024	05/22/2024	11/20/2024	05/22/2024	11/20/2024	05/22/2024	11/20/2024	05/21/2024	11/19/2024	05/07/2024	05/08/2024	05/21/2024	05/22/2024		
Lab Sample ID		L2428578-04	L2468389-04	L2428244-18	L2468074-16	L2428244-17	L2468074-15	L2428578-03	L2468389-03	L2428578-02	L2468389-02	L2428578-07	L2468389-07	L2428578-08	L2468389-08	L2428244-10	L2468074-27	L2425435-02	L2425435-03	L2428244-29	L2428578-29		
Units	Analyte	2020 GWIIA	2025 GWIIA															Field Blank	Field Blank	Field Blank	Field Blank		
UG/L	Tetrachloroethene	1	0.4	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	0.38 J	0.24 J	ND (0.18)	ND (0.18)	0.37 J	0.81	0.55	0.53	ND (0.18)	ND (0.18)	0.70	1.1	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)
UG/L	Trichloroethene	1	0.28	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	0.26 J	0.28 J	ND (0.18)	ND (0.18)	0.73	1.2	ND (0.18)	0.68	ND (0.18)	0.66	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)
UG/L	1,1,1-Trichloroethane	30	1,900	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)
UG/L	1,1-Dichloroethane	50	22	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)
UG/L	1,2-Dichloroethane	2	0.3	120	6.7	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	1.0	1.2	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)
UG/L	1,1-Dichloroethene	1	31	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)
UG/L	cis-1,2 Dichloroethene	70	11	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	0.20 J	3.5	9.4	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)
UG/L	trans-1,2-Dichloroethene	100	100	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	0.18 J	1.3	5.0 J	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)
UG/L	Carbon Tetrachloride	1	1	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)
UG/L	Vinyl Chloride	1	0.035	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	3.1	1.6	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)

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Table 3  
 2024 Groundwater Analytical Results - Site COCs  
 Pompton Lakes Works  
 Pompton Lakes, New Jersey

Region													
Alluvial Zone													
Depth to Top of PDB from TOC (feet)													
Depth to Bottom of PDB from TOC (feet)													
Well ID		FB-148S	FB-150S	FB-146S	FB-16	TB	TB-153S	TB-138S	TB-150S	TB-146S	TB-16		
Sample Date		11/05/2024	11/06/2024	11/19/2024	11/20/2024	05/07/2024	05/21/2024	05/22/2024	11/04/2024	11/19/2024	11/20/2024		
Lab Sample ID		L2464915-01	L2464915-03	L2468074-28	L2468389-29	L2425435-01	L2428244-30	L2428578-30	L2464915-02	L2468074-29	L2468389-30		
Units	Analyte	2020 GWIIA	2025 GWIIA	Field Blank	Field Blank	Field Blank	Field Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank
UG/L	Tetrachloroethene	1	0.4	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)
UG/L	Trichloroethene	1	0.28	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)
UG/L	1,1,1-Trichloroethane	30	1,900	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)
UG/L	1,1-Dichloroethane	50	22	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)
UG/L	1,2-Dichloroethane	2	0.3	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)
UG/L	1,1-Dichloroethene	1	31	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)
UG/L	cis-1,2 Dichloroethene	70	11	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)
UG/L	trans-1,2-Dichloroethene	100	100	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)
UG/L	Carbon Tetrachloride	1	1	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)
UG/L	Vinyl Chloride	1	0.035	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)

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**APPENDIX B**  
**Summary of Onsite Soils Data Detections**

Appendix B  
Summary of Onsite Soils Data Detections  
Pompton Lakes Works  
Pompton Lakes, New Jersey

Constituent of Concern	Surface Soil (0 to 2 feet bgs)			Subsurface Soil (below 2 feet bgs)			Soil Remediation Standard Ingestion-Dermal Residential (mg/kg)	Soil Remediation Standard Inhalation Residential (mg/kg)		
	# of detection	Min (mg/kg)	Max (mg/kg)	Median (mg/kg)	# of detection	Min (mg/kg)			Max (mg/kg)	Median (mg/kg)
<b>Northern Manufacturing Area</b>										
Arsenic	313	1.39	270	17.5	84	1.14	356	6.205	19 <sup>1</sup>	1100
Lead	655	5.37	94,701.75	296	93	0.955	25,600	13.9	200 <sup>5</sup>	NA <sup>1</sup>
Benzo(a)pyrene	27	0.01	0.38	0.061	0	NA	NA	NA	0.51	3,500 <sup>4</sup>
<b>Western Manufacturing Area</b>										
Antimony	51	0.884	2950	2.3	38	0.184	16.4	1.53	520	NA <sup>1</sup>
Arsenic	538	0.908	86.4	5.895	342	0.615	323	2.765	19 <sup>2</sup>	5,200
Copper	675	5.89	85,853.77	76.933	444	3.65	53,200	24.5	52000	NA <sup>1</sup>
Lead	785	2.525	173,000	143	431	0.101	96,000	9.299	800 <sup>5</sup>	NA <sup>1</sup>
Mercury	879	0.0101	22,100	6.48	327	0.0072	1,090	0.335	390	NA <sup>2,3</sup>
Selenium	71	0.549	18600	1.67	45	0.51	59.9	1.03	6,500	NA <sup>1</sup>
Benzo(a)anthracene	213	0.015	38	0.24	9	0.047	1	0.08	23	370,000 <sup>4</sup>
Benzo(b)fluoranthene	251	0.026	40	0.32	14	0.039	1.6	0.0895	23	370,000 <sup>4</sup>
Benzo(a)pyrene	278	0.015	130	0.265	15	0.057	1.1	0.14	2.3	16,000 <sup>4</sup>
Dibenz(A,H)Anthracene	124	0.009	11	0.172	4	0.051	0.25	0.057	2.3	37,000 <sup>4</sup>
Indeno(1,2,3-cd)pyrene	179	0.01	15	0.24	6	0.063	0.77	0.129	23	370,000 <sup>4</sup>

Appendix B  
Summary of Onsite Soils Data Detections  
Pompton Lakes Works  
Pompton Lakes, New Jersey

Constituent of Concern	Surface Soil (0 to 2 feet bgs)			Subsurface Soil (below 2 feet bgs)			Soil Remediation Standard Ingestion-Dermal Nonresidential (mg/kg)	Soil Remediation Standard Inhalation Nonresidential (mg/kg)		
	# of detection	Min (mg/kg)	Max (mg/kg)	Median (mg/kg)	# of detection	Min (mg/kg)			Max (mg/kg)	Median (mg/kg)
<b>Eastern Manufacturing Area</b>										
Antimony	66	0.75	10,700	6.10	44	0.72	1,110	6.55	520	NA <sup>1</sup>
Arsenic	395	0.54	65.4	3.20	394	0.48	81.5	1.7	19 <sup>2</sup>	5,200
Cadmium	206	0.069	172	0.62	171	0.06	1,180	0.42	1,100	12,000
Copper	2175	0.126	384,000	58.65	1515	0.494	334,000	20.1	52,000	NA <sup>1</sup>
Lead	2791	0.153	236,000	117.11	1523	0	95,700	20	800 <sup>5</sup>	NA <sup>1</sup>
Mercury	2342	0.008	21,374.26	8.38	1357	0.0025	33,800	3.282	390	NA 2,3
Vanadium	136	8.9	2,110	32.35	118	6.2	480	29.4	6,500	800,000
Benzo(a)anthracene	276	0.005	46	0.31	38	0.004	21	0.125	23	370,000 <sup>4</sup>
Benzo(b)fluoranthene	361	0.006	52	0.46	45	0.006	22	0.17	23	370,000 <sup>4</sup>
Benzo(a)pyrene	429	0.006	51	0.34	46	0.005	20	0.125	2.3	16,000 <sup>4</sup>
Dibenz(A,H)Anthracene	134	0.008	3.8	0.13	13	0.045	0.76	0.19	2.3	37,000 <sup>4</sup>
Indeno(1,2,3-cd)pyrene	224	0.006	14	0.25	31	0.037	11	0.12	23	370,000 <sup>4</sup>
Naphthalene	24	0.041	19	0.14	5	0.042	0.75	0.14	34,000	27
Carbon Tetrachloride	5	0.002	1.6	0.01	3	0.002	3.2	0.083	40	6.9
Chloroform	8	0.002	47	0.02	21	0.002	140	0.005	13,000	NA <sup>2,3</sup>
Tetrachloroethene	97	0.0008	3,900	0.04	65	0.001	84	0.0097	1,700	NA <sup>2,3</sup>
Trichloroethene	55	0.0009	100	0.01	28	0.001	5.1	0.0255	79	14
PCBs	254	0.0072	240	0.63	37	0.0043	2.6	0.12	1.1	NA <sup>1</sup>

**Notes:**

bgs = below grade surface

mg/kg = milligrams per kilogram

<sup>1</sup> Standard is based on natural background

<sup>2</sup> Standard is based on natural background

<sup>4</sup> Exceeds soil saturation limit; however, health-based criterion based on particulate portion of the equation

<sup>5</sup> Standard based on the Integrated Exposure Uptake Biokinetic (IEUBK) model for lead in children

NA<sup>1</sup> – Not applicable because appropriate toxicological information is not available

NA<sup>2</sup> Standard not applicable because the calculated health-based criterion exceeds one million mg/kg

NA<sup>3</sup> Standard not applicable because the calculated health-based criterion exceeds the soil saturation limit

**APPENDIX C**

**Table 5 from *Draft Acid Brook Groundwater-to-Surface Water  
Pathway Investigation Report***

**Table 5**  
**Surface Water Samples VOC Analysis 2018, 2019, and 2023**  
**Draft Acid Brook Groundwater-to-Surface Water Pathway Investigation Report**  
**Pompton Lakes Works**  
**Pompton Lakes, New Jersey**

Location ID Date Sampled Lab Sample ID Unit	FW2 Chronic ESC for Aquatic Life ug/l	FW2 Chronic Human Health SWQC ug/l	On-Site Site-Specific SL for Human Health ug/l	ABSW-0 11/26/2019 L1957090-01 ug/l	ABSW-0 05/31/2023 L2330267-03 ug/l	ABSW-0 06/21/2023 L2335531-04 ug/l	ABSW-0 12/07/2023 L2372307-04 ug/l
<b>Analyte</b>							
1,1,1-Trichloroethane	76	120	43,400,000	0.16 J	0.69	ND (0.16)	0.29 J
1,1-Dichloroethane	--	--	--	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)
1,1-Dichloroethene	65	4.7	--	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)
1,2-Dichloroethane	910	0.29	--	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)
Carbon Tetrachloride	240	0.33	--	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)
cis-1,2 Dichloroethene	--	--	61,000	0.66	2.1	ND (0.19)	1.0
Tetrachloroethene	45	0.34	23,200	ND (0.18)	ND (0.18)	ND (0.18)	0.28 J
trans-1,2-Dichloroethene	970	590	--	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)
Trichloroethene	47	1	2,560	ND (0.18)	0.20 J	ND (0.18)	ND (0.18)
Vinyl Chloride	930	0.082	460	ND (0.07)	0.12 J	ND (0.07)	0.17 J

Location ID Date Sampled Lab Sample ID Unit	FW2 Chronic ESC for Aquatic Life ug/l	FW2 Chronic Human Health SWQC ug/l	On-Site Site-Specific SL for Human Health ug/l	ABSW-1 11/20/2018 9911255 ug/l	ABSW-1 11/20/2018 9911262 ug/l Duplicate	ABSW-1 06/24/2019 L1927483-01 ug/l	ABSW-1 11/26/2019 L1957090-03 ug/l	ABSW-1 05/31/2023 L2330267-04 ug/l	ABSW-1 12/07/2023 L2372307-06 ug/l	ABSW-1 12/07/2023 L2372307-08 ug/l Duplicate
<b>Analyte</b>										
1,1,1-Trichloroethane	76	120	43,400,000	0.20 J	0.20 J	0.45 J	0.18 J	0.99	0.27 J	0.27 J
1,1-Dichloroethane	--	--	--	ND (0.07)	ND (0.07)	ND (0.21)	ND (0.21)	0.26 J	ND (0.21)	ND (0.21)
1,1-Dichloroethene	65	4.7	--	ND (0.06)	ND (0.06)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)
1,2-Dichloroethane	910	0.29	--	ND (0.05)	ND (0.05)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)
Carbon Tetrachloride	240	0.33	--	ND (0.07)	ND (0.07)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)
cis-1,2 Dichloroethene	--	--	61,000	0.60	0.60	1.7	0.69	3.0	1.0	1.0
Tetrachloroethene	45	0.34	23,200	0.20 J	0.20 J	0.53	0.19 J	0.22 J	0.31 J	0.28 J
trans-1,2-Dichloroethene	970	590	--	ND (0.06)	ND (0.06)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)
Trichloroethene	47	1	2,560	0.20 J	0.20 J	0.32 J	0.18 J	0.34 J	ND (0.18)	ND (0.18)
Vinyl Chloride	930	0.082	460	ND (0.10)	ND (0.10)	0.15 J	ND (0.07)	0.23	ND (0.07)	0.18 J

Location ID Date Sampled Lab Sample ID Unit	FW2 Chronic ESC for Aquatic Life ug/l	FW2 Chronic Human Health SWQC ug/l	On-Site Site-Specific SL for Human Health ug/l	ABSW-2 11/20/2018 9911258 ug/l	ABSW-2 06/24/2019 L1927483-03 ug/l	ABSW-2 11/26/2019 L1957090-05 ug/l	ABSW-2 05/31/2023 L2330267-07 ug/l	ABSW-2 12/07/2023 L2372307-05 ug/l
<b>Analyte</b>								
1,1,1-Trichloroethane	76	120	43,400,000	0.20 J	0.48 J	0.20 J	1.0	0.29 J
1,1-Dichloroethane	--	--	--	ND (0.07)	ND (0.21)	ND (0.21)	0.25 J	ND (0.21)
1,1-Dichloroethene	65	4.7	--	ND (0.06)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)
1,2-Dichloroethane	910	0.29	--	ND (0.05)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)
Carbon Tetrachloride	240	0.33	--	ND (0.07)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)
cis-1,2 Dichloroethene	--	--	61,000	0.60	1.4	0.69	3.0	0.96
Tetrachloroethene	45	0.34	23,200	0.30 J	0.48 J	0.20 J	0.24 J	0.32 J
trans-1,2-Dichloroethene	970	590	--	ND (0.06)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)
Trichloroethene	47	1	2,560	0.20 J	0.32 J	0.20 J	0.38 J	ND (0.18)
Vinyl Chloride	930	0.082	460	ND (0.10)	0.09 J	ND (0.07)	0.22	ND (0.07)

**Table 5**  
**Surface Water Samples VOC Analysis 2018, 2019, and 2023**  
**Draft Acid Brook Groundwater-to-Surface Water Pathway Investigation Report**  
**Pompton Lakes Works**  
**Pompton Lakes, New Jersey**

Location ID Date Sampled Lab Sample ID Unit	FW2 Chronic ESC for Aquatic Life ug/l	FW2 Chronic Human Health SWQC ug/l	On-Site Site-Specific SL for Human Health ug/l	ABSW-3 11/20/2018 9911259 ug/l	ABSW-3 06/24/2019 L1927483-05 ug/l	ABSW-3 11/26/2019 L1957090-07 ug/l	ABSW-3 11/26/2019 L1957090-09 ug/l Duplicate
Analyte							
1,1,1-Trichloroethane	76	120	43,400,000	0.20 J	0.38 J	ND (0.16)	ND (0.16)
1,1-Dichloroethane	--	--	--	ND (0.07)	ND (0.21)	ND (0.21)	ND (0.21)
1,1-Dichloroethene	65	4.7	--	ND (0.06)	ND (0.17)	ND (0.17)	ND (0.17)
1,2-Dichloroethane	910	0.29	--	ND (0.05)	ND (0.13)	ND (0.13)	ND (0.13)
Carbon Tetrachloride	240	0.33	--	ND (0.07)	ND (0.13)	ND (0.13)	ND (0.13)
cis-1,2 Dichloroethene	--	--	61,000	0.10 J	0.35 J	ND (0.19)	ND (0.19)
Tetrachloroethene	45	0.34	23,200	ND (0.06)	ND (0.18)	ND (0.18)	ND (0.18)
trans-1,2-Dichloroethene	970	590	--	ND (0.06)	ND (0.16)	ND (0.16)	ND (0.16)
Trichloroethene	47	1	2,560	0.07 J	ND (0.18)	ND (0.18)	ND (0.18)
Vinyl Chloride	930	0.082	460	ND (0.10)	ND (0.07)	ND (0.07)	ND (0.07)

Location ID Date Sampled Lab Sample ID Unit	FW2 Chronic ESC for Aquatic Life ug/l	FW2 Chronic Human Health SWQC ug/l	On-Site Site-Specific SL for Human Health ug/l	ABSW-4 11/20/2018 9911260 ug/l	ABSW-4 06/24/2019 L1927483-07 ug/l	ABSW-4 11/26/2019 L1957090-11 ug/l
Analyte						
1,1,1-Trichloroethane	76	120	43,400,000	0.10 J	0.21 J	ND (0.16)
1,1-Dichloroethane	--	--	--	ND (0.07)	ND (0.21)	ND (0.21)
1,1-Dichloroethene	65	4.7	--	ND (0.06)	ND (0.17)	ND (0.17)
1,2-Dichloroethane	910	0.29	--	ND (0.05)	ND (0.13)	ND (0.13)
Carbon Tetrachloride	240	0.33	--	ND (0.07)	ND (0.13)	ND (0.13)
cis-1,2 Dichloroethene	--	--	61,000	0.06 J	ND (0.19)	ND (0.19)
Tetrachloroethene	45	0.34	23,200	ND (0.06)	ND (0.18)	ND (0.18)
trans-1,2-Dichloroethene	970	590	--	ND (0.06)	ND (0.16)	ND (0.16)
Trichloroethene	47	1	2,560	ND (0.06)	ND (0.18)	ND (0.18)
Vinyl Chloride	930	0.082	460	ND (0.10)	ND (0.07)	ND (0.07)

Location ID Date Sampled Lab Sample ID Unit	FW2 Chronic ESC for Aquatic Life ug/l	FW2 Chronic Human Health SWQC ug/l	On-Site Site-Specific SL for Human Health ug/l	ABSW-5 11/20/2018 9911261 ug/l	ABSW-5 06/24/2019 L1927483-09 ug/l	ABSW-5 06/24/2019 L1927483-11 ug/l Duplicate	ABSW-5 11/26/2019 L1957090-13 ug/l	ABSW-5 05/31/2023 L2330267-08 ug/l	ABSW-5 12/07/2023 L2372307-07 ug/l
Analyte									
1,1,1-Trichloroethane	76	120	43,400,000	ND (0.06)	ND (0.16)	ND (0.16)	ND (0.16)	0.40 J	ND (0.16)
1,1-Dichloroethane	--	--	--	ND (0.07)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)
1,1-Dichloroethene	65	4.7	--	ND (0.06)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)
1,2-Dichloroethane	910	0.29	--	ND (0.05)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)
Carbon Tetrachloride	240	0.33	--	ND (0.07)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)
cis-1,2 Dichloroethene	--	--	61,000	ND (0.05)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)
Tetrachloroethene	45	0.34	23,200	ND (0.06)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)
trans-1,2-Dichloroethene	970	590	--	ND (0.06)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)
Trichloroethene	47	1	2,560	ND (0.06)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)
Vinyl Chloride	930	0.082	460	ND (0.10)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)	ND (0.07)

**Table 5**  
**Surface Water Samples VOC Analysis 2018, 2019, and 2023**  
**Draft Acid Brook Groundwater-to-Surface Water Pathway Investigation Report**  
**Pompton Lakes Works**  
**Pompton Lakes, New Jersey**

Location ID Date Sampled Lab Sample ID Unit	FW2 Chronic ESC for Aquatic Life ug/l	FW2 Chronic Human Health SWQC ug/l	On-Site Site-Specific SL for Human Health ug/l	ABSW-6 06/21/2023 L2335531-03 ug/l	ABSW-6 12/07/2023 L2372307-03 ug/l
<b>Analyte</b>					
1,1,1-Trichloroethane	76	120	43,400,000	ND (0.16)	ND (0.16)
1,1-Dichloroethane	--	--	--	ND (0.21)	ND (0.21)
1,1-Dichloroethene	65	4.7	--	ND (0.17)	ND (0.17)
1,2-Dichloroethane	910	0.29	--	ND (0.13)	ND (0.13)
Carbon Tetrachloride	240	0.33	--	ND (0.13)	ND (0.13)
cis-1,2 Dichloroethene	--	--	61,000	ND (0.19)	0.66
Tetrachloroethene	45	0.34	23,200	ND (0.18)	0.18 J
trans-1,2-Dichloroethene	970	590	--	ND (0.16)	ND (0.16)
Trichloroethene	47	1	2,560	ND (0.18)	ND (0.18)
Vinyl Chloride	930	0.082	460	ND (0.07)	0.15 J

Location ID Date Sampled Lab Sample ID Unit	FW2 Chronic ESC for Aquatic Life ug/l	FW2 Chronic Human Health SWQC ug/l	On-Site Site-Specific SL for Human Health ug/l	EPA Site 5 05/31/2023 L2330267-05 ug/l	EPA Site 5 05/31/2023 L2330267-06 ug/l Duplicate
<b>Analyte</b>					
1,1,1-Trichloroethane	76	120	43,400,000	1.1	1.1
1,1-Dichloroethane	--	--	--	0.26 J	0.25 J
1,1-Dichloroethene	65	4.7	--	ND (0.17)	ND (0.17)
1,2-Dichloroethane	910	0.29	--	ND (0.13)	ND (0.13)
Carbon Tetrachloride	240	0.33	--	ND (0.13)	ND (0.13)
cis-1,2 Dichloroethene	--	--	61,000	3.1	3.2
Tetrachloroethene	45	0.34	23,200	0.23 J	0.23 J
trans-1,2-Dichloroethene	970	590	--	ND (0.16)	ND (0.16)
Trichloroethene	47	1	2,560	0.37 J	0.26 J
Vinyl Chloride	930	0.082	460	0.30	0.29

Notes:

1. Denotes exceedance of FW2 Chronic Human Health SWQC; no other criteria were exceeded
2. J = estimated value
3. ug/l = microgram per liter
4. ND = not detected at specified detection limit
5. -- = no standard / criteria
6. FW2 Chronic ESC for Aquatic Life = Fresh Water (FW2) Chronic Ecological Screening Criteria for Aquatic Life, March 10, 2009
7. FW2 Chronic Human Health SWQC = Fresh Water (FW2) Chronic Human Health Surface Water Quality Criteria, New Jersey Administrative Code (N.J.A.C.) 7:9B, December 18, 2023
8. On-Site Site-Specific SL for Human Health = On-Site Site-Specific Screening Level for Human Health

**APPENDIX D**  
**Wanaque River Surface Water Dataset (Phase I and II RI)**

Appendix D  
Wanaque River Surface Water Dataset (Phase IRI)  
Pompton Lakes Works  
Pompton Lakes, New Jersey

Parameter	Total (T) / Dissolved (D)	Units	No. of Detects	No. of Samples	Minimum Detect	Maximum Detect	FW2 Chronic Human Health SWQC	Reach	Reach 1							
								Location ID	WR-01	WR-02	WR-03	WR-04	WR-05	WR-06	WR-07	WR-08
								Date Sampled	12/07/2009	12/07/2009	12/07/2009	12/07/2009	12/07/2009	12/07/2009	12/07/2009	12/07/2009
								Sample Purpose	FS	FS	FS	FS	FS	FS	FS	DUP
								Depth								
								Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	
Antimony	T	MG/L	0	26			0.0056		<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097
Antimony	D	MG/L	0	26					<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097
Arsenic	T	MG/L	0	26			0.000017		<0.0072	<0.0072	<0.0072	<0.0072	<0.0072	<0.0072	<0.0072	<0.0072
Arsenic	D	MG/L	0	26					<0.0072	<0.0072	<0.0072	<0.0072	<0.0072	<0.0072	<0.0072	<0.0072
Barium	T	MG/L	26	26	0.0106	0.0135	2		0.0135	0.0132	0.0120	0.0120	0.0126	0.0109	0.0108	0.0112
Barium	D	MG/L	26	26	0.0093	0.0114			0.0093	0.0104	0.0104	0.0104	0.0106	0.0102	0.0102	0.0102
Beryllium	T	MG/L	0	26			0.006		<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014
Beryllium	D	MG/L	0	26					<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014
Cadmium	T	MG/L	0	26	ND	ND	0.0034		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Cadmium	D	MG/L	0	26	ND	ND			<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Chromium	T	MG/L	0	26	ND	ND	0.092		<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034
Chromium	D	MG/L	0	26	ND	ND			<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034
Copper	T	MG/L	26	26	0.0011	0.0033	1.3		0.0033	0.0021	0.0018 J	0.0017 J	0.0017 J	0.0012 J	0.0014 J	0.0012 J
Copper	D	MG/L	26	26	0.00083	0.0017			0.0010 J	0.00095 J	0.0010 J	0.0012 J	0.0011 J	0.00099 J	0.0010 J	0.0011 J
Lead	T	MG/L	26	26	0.00018	0.0015	0.005		0.0015	0.00082 J	0.00070 J	0.00064 J	0.00089 J	0.00025 J	0.00037 J	0.00039 J
Lead	D	MG/L	19	26	0.000056	0.00015			<0.000050	0.000057 J	<0.000050	0.000056 J	0.00015 J	0.00015 J	0.000057 J	0.000059 J
Mercury	T	MG/L	26	26	0.00000227	0.0000656	0.00005		0.000057	0.000015	0.000012	0.000010	0.000010	0.000003	0.000004	0.000003
Mercury	D	MG/L	26	26	0.00000093	0.00000429			0.00000209	0.00000195	0.00000173	0.00000162	0.00000261	0.00000126 B	0.00000128 B	0.00000112 B
Nickel	T	MG/L	0	26	ND	ND	0.5		<0.0018	<0.0018	<0.0018	<0.0018	<0.0018	<0.0018	<0.0018	<0.0018
Nickel	D	MG/L	0	26	ND	ND			<0.0018	<0.0018	<0.0018	<0.0018	<0.0018	<0.0018	<0.0018	<0.0018
Selenium	T	MG/L	0	26	ND	ND	0.17		<0.00099	<0.00099	<0.00099	<0.00099	<0.00099	<0.00099	<0.00099	<0.00099
Selenium	D	MG/L	0	26	ND	ND			<0.00099	<0.00099	<0.00099	<0.00099	<0.00099	<0.00099	<0.00099	<0.00099
Silver	T	MG/L	0	26	ND	ND	0.17		<0.0023	<0.0023	<0.0023	<0.0023	<0.0023	<0.0023	<0.0023	<0.0023
Silver	D	MG/L	0	26	ND	ND			<0.0023	<0.0023	<0.0023	<0.0023	<0.0023	<0.0023	<0.0023	<0.0023
Thallium	T	MG/L	0	26	ND	ND	0.00024		<0.0140	<0.0140	<0.0140	<0.0140	<0.0140	<0.0140	<0.0140	<0.0140
Thallium	D	MG/L	0	26	ND	ND			<0.0140	<0.0140	<0.0140	<0.0140	<0.0140	<0.0140	<0.0140	<0.0140
Zinc	T	MG/L	0	26	ND	ND	7.4		<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081
Zinc	D	MG/L	0	26	ND	ND			<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081

Notes:

1. Denotes exceedance of FW2 Chronic Human Health SWQC
2. J = estimated value
3. MG/L = milligrams per liter
4. ND = not detected at specified
5. FW2 Chronic Human Health SWQC = Fresh Water (FW2) Chronic Human Health Surface Water Quality Criteria, New Jersey Administrative Code (N.J.A.C.) 7:9B, December 18, 2023

Appendix D  
Wanaque River Surface Water Dataset (Phase IRI)  
Pompton Lakes Works  
Pompton Lakes, New Jersey

Parameter	Total (T) / Dissolved (D)	Units	No. of Detects	No. of Samples	Minimum Detect	Maximum Detect	FW2 Chronic Human Health SWQC	Reach 2												
								Reach												
								Location ID	WR-08	WR-09	WR-10	WR-11	WR-12	WR-13	WR-14	WR-15	WR-15	WR-16	WR-17	WR-18
								Date Sampled	12/07/2009	12/07/2009	12/18/2009	12/18/2009	12/18/2009	12/18/2009	12/18/2009	12/08/2009	12/08/2009	12/08/2009	12/08/2009	12/08/2009
								Sample Purpose	FS	FS	FS	FS	FS	FS	FS	DUP	FS	FS	FS	FS
Depth																				
								Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result		
Antimony	T	MG/L	0	26			0.0056	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097		
Antimony	D	MG/L	0	26				<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097		
Arsenic	T	MG/L	0	26			0.000017	<0.0072	<0.0072	<0.0072	<0.0072	<0.0072	<0.0072	<0.0072	<0.0072	<0.0072	<0.0072	<0.0072		
Arsenic	D	MG/L	0	26				<0.0072	<0.0072	<0.0072	<0.0072	<0.0072	<0.0072	<0.0072	<0.0072	<0.0072	<0.0072	<0.0072		
Barium	T	MG/L	26	26	0.0106	0.0135	2	0.0107	0.0106	0.0118	0.0116	0.0131	0.0113	0.0113	0.0115	0.0115	0.0118	0.0117	0.0117	
Barium	D	MG/L	26	26	0.0093	0.0114		0.0104	0.0102	0.0112	0.0108	0.0107	0.0107	0.0107	0.0106	0.0107	0.0112	0.0114	0.0111	
Beryllium	T	MG/L	0	26			0.006	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	
Beryllium	D	MG/L	0	26				<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	
Cadmium	T	MG/L	0	26	ND	ND	0.0034	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020		
Cadmium	D	MG/L	0	26	ND	ND		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020		
Chromium	T	MG/L	0	26	ND	ND	0.092	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034		
Chromium	D	MG/L	0	26	ND	ND		<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034		
Copper	T	MG/L	26	26	0.0011	0.0033	1.3	0.0012 J	0.0012 J	0.0011 B	0.0011 B	0.0011 B	0.0011 B	0.0019 B	0.0016 J	0.0014 J	0.0016 J	0.0014 J	0.0013 J	
Copper	D	MG/L	26	26	0.0083	0.0017		0.00098 J	0.00089 J	0.00090 B	0.0016 B	0.00092 B	0.00083 B	0.00090 B	0.0010 J	0.0012 J	0.0011 J	0.0012 J	0.0011 J	
Lead	T	MG/L	26	26	0.00018	0.0015	0.005	0.00033 J	0.00028 J	0.00031 B	0.00083 B	0.00018 B	0.00020 B	0.00022 B	0.00031 J	0.00030 J	0.00034 J	0.00026 J	0.00020 J	
Lead	D	MG/L	19	26	0.000056	0.00015		<0.000050	0.000064 J	0.000082 B	<0.000050	<0.000050	<0.000050	<0.000050	0.000058 J	0.000064 J	0.000061 J	0.000067 J	0.00013 J	
Mercury	T	MG/L	26	26	0.00000227	0.0000656	0.00005	0.000003	0.000002	0.00000305 B	0.00000227 B	0.0000024 B	0.000005	0.00000281 B	0.000056	0.000040	0.000028	0.000024	0.000015	
Mercury	D	MG/L	26	26	0.00000093	0.00000429		0.0000012 B	0.00000125 B	0.00000093 B	0.00000107 B	0.00000095 B	0.00000108 B	0.00000116 B	0.00000382 B	0.00000351	0.00000263	0.00000303	0.00000382	
Nickel	T	MG/L	0	26	ND	ND	0.5	<0.0018	<0.0018	<0.0018	<0.0018	<0.0018	<0.0018	<0.0018	<0.0018	<0.0018	<0.0018	<0.0018	<0.0018	
Nickel	D	MG/L	0	26	ND	ND		<0.0018	<0.0018	<0.0018	<0.0018	<0.0018	<0.0018	<0.0018	<0.0018	<0.0018	<0.0018	<0.0018	<0.0018	
Selenium	T	MG/L	0	26	ND	ND	0.17	<0.00099	<0.00099	<0.00099	<0.00099	<0.00099	<0.00099	<0.00099	<0.00099	<0.00099	<0.00099	<0.00099	<0.00099	
Selenium	D	MG/L	0	26	ND	ND		<0.00099	<0.00099	<0.00099	<0.00099	<0.00099	<0.00099	<0.00099	<0.00099	<0.00099	<0.00099	<0.00099	<0.00099	
Silver	T	MG/L	0	26	ND	ND	0.17	<0.0023	<0.0023	<0.0023	<0.0023	<0.0023	<0.0023	<0.0023	<0.0023	<0.0023	<0.0023	<0.0023	<0.0023	
Silver	D	MG/L	0	26	ND	ND		<0.0023	<0.0023	<0.0023	<0.0023	<0.0023	<0.0023	<0.0023	<0.0023	<0.0023	<0.0023	<0.0023	<0.0023	
Thallium	T	MG/L	0	26	ND	ND	0.00024	<0.0140	<0.0140	<0.0140	<0.0140	<0.0140	<0.0140	<0.0140	<0.0140	<0.0140	<0.0140	<0.0140	<0.0140	
Thallium	D	MG/L	0	26	ND	ND		<0.0140	<0.0140	<0.0140	<0.0140	<0.0140	<0.0140	<0.0140	<0.0140	<0.0140	<0.0140	<0.0140	<0.0140	
Zinc	T	MG/L	0	26	ND	ND	7.4	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	
Zinc	D	MG/L	0	26	ND	ND		<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	

- Notes:
1. Denotes exceedance of FW2 Chronic Human Health SWQC
  2. J = estimated value
  3. MG/L = milligrams per liter
  4. ND = not detected at specified
  5. FW2 Chronic Human Health SWQC = Fresh Water (FW2) Chronic Human Health Surface Water Quality Criteria, New Jersey Administrative Co

Appendix D  
Wanaque River Surface Water Dataset (Phase IRI)  
Pompton Lakes Works  
Pompton Lakes, New Jersey

Parameter	Total (T) / Dissolved (D)	Units	No. of Detects	No. of Samples	Minimum Detect	Maximum Detect	FW2 Chronic Human Health SWQC	Reach	Reach 3						
								Location ID	WR-19	WR-20	WR-21	WR-22	WR-23	WR-24	
								Date Sampled	12/08/2009	12/08/2009	12/08/2009	12/08/2009	12/08/2009	12/08/2009	
								Sample Purpose	FS	FS	FS	FS	FS	FS	
								Depth							
							Report Result	Report Result	Report Result	Report Result	Report Result	Report Result			
Antimony	T	MG/L	0	26			0.0056		<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097
Antimony	D	MG/L	0	26					<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097
Arsenic	T	MG/L	0	26			0.000017		<0.0072	<0.0072	<0.0072	<0.0072	<0.0072	<0.0072	<0.0072
Arsenic	D	MG/L	0	26					<0.0072	<0.0072	<0.0072	<0.0072	<0.0072	<0.0072	<0.0072
Barium	T	MG/L	26	26	0.0106	0.0135	2		0.0110	0.0109	0.0111	0.0111	0.0114	0.0113	0.0113
Barium	D	MG/L	26	26	0.0093	0.0114			0.0105	0.0105	0.0109	0.0104	0.0105	0.0106	0.0106
Beryllium	T	MG/L	0	26			0.006		<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014
Beryllium	D	MG/L	0	26					<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014
Cadmium	T	MG/L	0	26	ND	ND	0.0034		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Cadmium	D	MG/L	0	26	ND	ND			<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Chromium	T	MG/L	0	26	ND	ND	0.092		<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034
Chromium	D	MG/L	0	26	ND	ND			<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034
Copper	T	MG/L	26	26	0.0011	0.0033	1.3		0.0015 J	0.0022	0.0020	0.0021	0.0019 J	0.0018 J	0.0018 J
Copper	D	MG/L	26	26	0.00083	0.0017			0.0011 J	0.0016 J	0.0015 J	0.0017 J	0.0016 J	0.0015 J	0.0015 J
Lead	T	MG/L	26	26	0.00018	0.0015	0.005		0.00026 J	0.00042 J	0.00038 J	0.00056 J	0.00057 J	0.00039 J	0.00039 J
Lead	D	MG/L	19	26	0.000056	0.00015			0.000094 J	0.00013 J	0.00013 J	0.00014 J	0.00013 J	0.00014 J	0.00014 J
Mercury	T	MG/L	26	26	0.0000227	0.0000656	0.00005		0.000023	0.000066	0.000025	0.000034	0.000038	0.000024	0.000024
Mercury	D	MG/L	26	26	0.0000093	0.0000429			0.00000429	0.00000301	0.00000287	0.0000042	0.00000245	0.00000327	0.00000327
Nickel	T	MG/L	0	26	ND	ND	0.5		<0.0018	<0.0018	<0.0018	<0.0018	<0.0018	<0.0018	<0.0018
Nickel	D	MG/L	0	26	ND	ND			<0.0018	<0.0018	<0.0018	<0.0018	<0.0018	<0.0018	<0.0018
Selenium	T	MG/L	0	26	ND	ND	0.17		<0.00099	<0.00099	<0.00099	<0.00099	<0.00099	<0.00099	<0.00099
Selenium	D	MG/L	0	26	ND	ND			<0.00099	<0.00099	<0.00099	<0.00099	<0.00099	<0.00099	<0.00099
Silver	T	MG/L	0	26	ND	ND	0.17		<0.0023	<0.0023	<0.0023	<0.0023	<0.0023	<0.0023	<0.0023
Silver	D	MG/L	0	26	ND	ND			<0.0023	<0.0023	<0.0023	<0.0023	<0.0023	<0.0023	<0.0023
Thallium	T	MG/L	0	26	ND	ND	0.00024		<0.0140	<0.0140	<0.0140	<0.0140	<0.0140	<0.0140	<0.0140
Thallium	D	MG/L	0	26	ND	ND			<0.0140	<0.0140	<0.0140	<0.0140	<0.0140	<0.0140	<0.0140
Zinc	T	MG/L	0	26	ND	ND	7.4		<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081
Zinc	D	MG/L	0	26	ND	ND			<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081

Notes:

1. Denotes exceedance of FW2 Chronic Human Health SWQC
2. J = estimated value
3. MG/L = milligrams per liter
4. ND = not detected at specified
5. FW2 Chronic Human Health SWQC = Fresh Water (FW2) Chronic Human Health Surface Water Quality Criteria, New Jersey Administrative Co

Appendix D  
Wanaque River Surface Water Dataset (Phase II RI)  
Pompton Lakes Works  
Pompton Lakes, New Jersey

Parameter	Total (T) / Dissolved (D)	Units	FW2 Chronic Human Health SWQC	Reach	Reach 1				Reach 2					
				Location ID	WR-01	WR-08-A	WR-08-B	WR-08-C	WR-10.5	WR-12	WR-12	WR-13.5	WR-14-A	WR-14-B
				Date Sampled	11/02/2010	11/02/2010	11/02/2010	11/02/2010	11/03/2010	11/03/2010	11/03/2010	11/03/2010	11/03/2010	11/03/2010
				Sample Purpose	FS	FS	FS	FS	FS	DUP	FS	FS	FS	FS
				Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result		
Mercury	T	MG/L	0.00005		0.000006	0.000002	0.000002	0.000002	0.000002	0.000002	0.000002	0.00000252 J	0.00000248 J	0.00000314 J
Mercury	D	MG/L			0.00000163	0.00000075	0.00000071	0.00000057	0.00000075	0.00000073	0.000001 J	0.00000089 J	0.00000114 J	0.00000126 J
Methyl Mercury	T	NG/L	2,000	RSL <sub>tap</sub>	0.045 J	0.053	0.04 J	0.044 J	0.036 J	0.036 J	0.038 J	0.039 J	0.043 J	0.035 J
Methyl Mercury	D	NG/L			0.028 J	0.034 J	0.038 J	0.023 J	<0.02	0.021 J	0.024 J	0.024 J	0.021 J	0.027 J

Parameter	Total (T) / Dissolved (D)	Units	FW2 Chronic Human Health SWQC	Reach	Reach 2									
				Location ID	WR-14-C	WR-14.5L-A	WR-14.5L-B	WR-14.5L-C	WR-14.5M-A	WR-14.5M-B	WR-14.5M-C	WR-14.5R-A	WR-14.5R-B	WR-14.5R-C
				Date Sampled	11/03/2010	11/03/2010	11/03/2010	11/03/2010	11/03/2010	11/03/2010	11/03/2010	11/03/2010	11/03/2010	11/03/2010
				Sample Purpose	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
				Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result		
Mercury	T	MG/L	0.00005		0.00000277 J	0.0000135 J	0.0000187 J	0.0000646 J	0.0000118 J	0.0000117 J	0.0000121 J	0.0000109 J	0.0000112 J	0.0000113 J
Mercury	D	MG/L			0.00000129 J	0.00000501 J	0.00000641 J	0.00000568 J	0.00000444 J	0.00000414 J	0.0000046 J	0.00000452 J	0.00000469 J	0.00000478 J
Methyl Mercury	T	NG/L	2,000	RSL <sub>tap</sub>	0.034 J									
Methyl Mercury	D	NG/L			<0.02									

Parameter	Total (T) / Dissolved (D)	Units	FW2 Chronic Human Health SWQC	Reach	Reach 2									
				Location ID	WR-15L-A	WR-15L-B	WR-15L-C	WR-15M-A	WR-15M-B	WR-15M-C	WR-15R-A	WR-15R-B	WR-15R-C	WR-16
				Date Sampled	11/03/2010	11/03/2010	11/03/2010	11/03/2010	11/03/2010	11/03/2010	11/03/2010	11/03/2010	11/03/2010	11/03/2010
				Sample Purpose	FS	FS	FS	FS	FS	FS	FS	FS	FS	DUP
				Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result			
Mercury	T	MG/L	0.00005		0.000012 J	0.000011 J	0.000012	0.000012	0.000010	0.000010	0.000008	0.000009	0.000008	0.000015
Mercury	D	MG/L			0.00000496 J	0.0000045	0.00000453	0.00000417	0.00000425	0.00000418	0.00000328	0.00000373	0.0000033	0.00000443
Methyl Mercury	T	NG/L	2,000	RSL <sub>tap</sub>										0.072
Methyl Mercury	D	NG/L												0.038 J

Parameter	Total (T) / Dissolved (D)	Units	FW2 Chronic Human Health SWQC	Reach	Reach 2			Reach 3						
				Location ID	WR-16	WR-17	WR-18	WR-19.5-A	WR-19.5-B	WR-19.5-C	WR-19.5-D	WR-20-A	WR-20-B	WR-20-C
				Date Sampled	11/03/2010	11/03/2010	11/03/2010	11/04/2010	11/04/2010	11/04/2010	11/04/2010	11/04/2010	11/04/2010	11/04/2010
				Sample Purpose	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
				Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result		
Mercury	T	MG/L	0.00005		0.000014	0.000015	0.000031	0.000086	0.000088	0.000195	0.000203	0.000085	0.000081	0.000083
Mercury	D	MG/L			0.00000422	0.00000443	0.00000486	0.00000584	0.0000111	0.0000172	0.0000126	0.0000069	0.00000677	0.00000783
Methyl Mercury	T	NG/L	2,000	RSL <sub>tap</sub>	0.066	0.106	0.113	0.329	0.409	0.438		0.36	0.384	0.367
Methyl Mercury	D	NG/L			0.046 J	0.053	0.061	0.131	0.168	0.175		0.168	0.151	0.158

Appendix D  
Wanaque River Surface Water Dataset (Phase II RI)  
Pompton Lakes Works  
Pompton Lakes, New Jersey

Parameter	Total (T) / Dissolved (D)	Units	FW2 Chronic Human Health SWQC	Reach	Reach 3									
				Location ID	WR-20.5	WR-20.5	WR-22.5-A	WR-22.5-B	WR-22.5-C	WR-23	WR-23	WR-24.5	WR-24.5	
				Date Sampled	11/04/2010	11/04/2010	11/04/2010	11/04/2010	11/04/2010	11/04/2010	11/04/2010	11/04/2010	11/04/2010	11/04/2010
				Sample Purpose	DUP	FS	FS	FS	FS	DUP	FS	DUP	FS	
				Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result			
Mercury	T	MG/L	0.00005		0.000092	0.000063	0.000093	0.000089	0.000075	0.000004	0.000068	0.000055	0.000072	
Mercury	D	MG/L			0.00000401	0.00000403	0.00000394	0.00000732	0.0000041	0.000412	0.00000775	0.00000503	0.00000462	
Methyl Mercury	T	NG/L	2,000	RSL <sub>tap</sub>	0.317	0.341	0.443	0.417	0.382	0.462	0.422	0.44	0.477	
Methyl Mercury	D	NG/L			0.121	0.125	0.116	0.131	0.173	0.147	0.17	0.188	0.164	

- Notes:
1. Denotes exceedance of FW2 Chronic Human Health SWQC
  2. J = estimated value
  3. MG/L = milligrams per liter
  4. ND = not detected at specified
  5. FW2 Chronic Human Health SWQC = Fresh Water (FW2) Chronic Human Health Surface Water Quality Criteria, New Jersey Administrative Code (N.J.A.C.) 7:9B, December 18, 2023

Parameter	Total (T) / Dissolved (D)	Units	No. of Detects	No. of Samples	Minimum Detect	Maximum Detect
Mercury	T	MG/L	49	49	0.00000208	0.000203
Mercury	D	MG/L	49	49	0.00000057	0.000412
Methyl Mercury	T	NG/L	30	30	0.034	0.477
Methyl Mercury	D	NG/L	28	30	0.021	0.188

**APPENDIX E**  
**Wanaque River Bank Soils and Sediments Dataset**

**Appendix E**  
**Summary of Total Mercury Concentrations in Offsite Wanaque River Bank Soils (Bank Areas 10 and 11)**

Pompton Lakes Works  
Pompton Lakes, New Jersey

Parameter	Units	NJ Residential SRS Ingestion/Dermal Contact	Surficial Bank Face Soils								
			Location ID	334-601SB	334-601SB	334-602SB	334-602SB	334-603SB	334-603SB	334-604SB	334-604SB
			Date Sampled	01/15/2014	01/15/2014	01/15/2014	01/15/2014	01/15/2014	01/15/2014	01/15/2014	01/15/2014
			Sample Purpose	FS	FS	FS	FS	FS	FS	FS	FS
			Start Depth - End Depth	0.0 - 2.0	2.0 - 4.0	0.0 - 2.0	2.0 - 4.0	0.0 - 2.0	2.0 - 4.0	0.0 - 2.0	2.0 - 4.0
Mercury	MG/KG	23	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	
			11.2	36.1	47.1	88.5	23.2	17.3	3.29	3.57	

Parameter	Units	NJ Residential SRS Ingestion/Dermal Contact	Surficial Bank Face Soils						
			Location ID	334-623SB	334-623SB	334-624SB	334-624SB	334-625SB	334-625SB
			Date Sampled	01/15/2014	01/15/2014	01/15/2014	01/15/2014	01/15/2014	01/15/2014
			Sample Purpose	FS	FS	FS	FS	DUP	FS
			Start Depth - End Depth	0.0 - 2.0	2.0 - 4.0	0.0 - 2.0	2.0 - 4.0	0.0 - 2.0	0.0 - 2.0
Mercury	MG/KG	23	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	
			11.9	22.5	21.2	18.6	34	35.4	1.25

Parameter	Units	NJ Residential SRS Ingestion/Dermal Contact	Soil Cores (Top of Bank)					
			Location ID	334-599S	334-599S	334-599S	334-600S	334-600S
			Date Sampled	01/15/2014	01/15/2014	08/20/2014	01/15/2014	01/15/2014
			Sample Purpose	FS	FS	FS	FS	FS
			Start Depth - End Depth	0.0 - 1.0	1.0 - 1.5	1.5 - 2.0	0.0 - 1.0	1.0 - 2.0
Mercury	MG/KG	23	Report Result	Report Result	Report Result	Report Result	Report Result	
			36	44.7	8.44	31	2.12	0.925

Parameter	Units	NJ Residential SRS Ingestion/Dermal Contact	Soil Cores (Top of Bank)						
			Location ID	334-602S	334-602S	334-623S	334-624S	334-624S	334-625S
			Date Sampled	01/15/2014	01/15/2014	01/15/2014	01/15/2014	01/15/2014	01/15/2014
			Sample Purpose	FS	FS	FS	FS	FS	FS
			Start Depth - End Depth	0.0 - 1.0	1.0 - 2.0	0.0 - 1.0	0.0 - 1.0	1.0 - 1.5	0.0 - 1.0
Mercury	MG/KG	23	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	
			92.5	13.2	21.7	27.1	6.38	22.4	23.9

MG/KG - milligrams per kilogram  
DUP - Duplicate  
FS - Field Sample  
SRS - Soil Remediation Standard

J - Estimated value

Yellow shading indicates an exceedance of the SRS

No. of Samples	16
No. of Detects	16
Minimum Detect	3.29
Maximum Detect	88.5

**Appendix E**  
**Wanaque River Sediments Dataset (Phase I RI)**  
Pompton Lakes Works  
Pompton Lakes, New Jersey

Parameter	Units	No. of Detects	No. of Samples	Minimum Detect	Maximum Detect	NJ Residential SRS Ingestion/Dermal Contact	NJ Residential SRS Inhalation	Reach	Reach 1								Reach 2			
								Location ID	WR-01-SD	WR-02-SD	WR-03-SD	WR-04-SD	WR-05-SD	WR-06-SD	WR-06-SD	WR-07-SD	WR-08-SD	WR-09-SD	WR-10-SD	WR-11-SD
								Date Sampled	12/16/2009	12/16/2009	12/16/2009	12/16/2009	12/16/2009	12/16/2009	12/16/2009	12/16/2009	12/16/2009	12/16/2009	12/16/2009	12/16/2009
								Sample Purpose	FS	FS	FS	FS	FS	DUP	FS	FS	FS	FS	FS	FS
								Start Depth - End Depth	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
								Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result			
Antimony	MG/KG	0	26	ND	ND	31	NA		<1.93	<3.37	<4.54	<2.91	<2.35	<2.23	<2.26	<2.30	<2.48	<4.28	<2.70	<1.94
Arsenic	MG/KG	17	26	1.96	16.2	19	1100		<1.83	3.27 J	6.15 J	6.26	2.54 J	5.24	4.93	2.29 J	4.81 J	4.97 J	4.65 J	1.96 J
Barium	MG/KG	26	26	18.9	128	16000	870000		113	61.9	128	87.3	77.2	92.9	91.6	92.8	107	114	73.5	56.8
Beryllium	MG/KG	25	26	0.201	1.55	160	2000		0.504 J	0.493 J	0.631 J	0.666 J	0.518 J	0.873 J	0.852 J	0.600 J	0.929 J	1.22 J	0.641 J	0.472 J
Cadmium	MG/KG	18	26	0.423	1.35	71	2600		0.836 J	0.756 J	1.27 J	1.16 J	0.980 J	1.17	1.17	0.718 J	1.35	1.34 J	1.00 J	0.556 J
Chromium	MG/KG	26	26	7.87	48.2	240	270	CrVI	36.2	30.5	37.9	28.6	26.6	31.9	31.4	18.8	32.3	34.3	22.6	17.9
Copper	MG/KG	26	26	13.1	297	3100	NA		37.5	38.9	71.4	49.7	31.2	74.8	78.1	33.3	84.4	64.9	45.3	23.6
Lead	MG/KG	26	26	10.1	305	400	NA		33.7	40.5	62.6	46.2	34.4	70.8	73.8	30.1	76.4	76.3	64.2	25.9
Mercury	MG/KG	26	26	0.0839	57.4	23	NA		0.219 J	0.114 J	0.149 J	0.134 J	0.0994 J	0.234 J	0.265 J	0.0839 J	0.330 J	0.200 J	0.504 J	0.115 J
Nickel	MG/KG	26	26	5.65	28.5	1600	20000		18.4	18.4	24.7	21.9	20.6	24.8	25.3	15.5	26.7	28.5	16.8	12.9
Selenium	MG/KG	0	26	ND	ND	390	NA		<1.89	<3.31	<4.45	<2.85	<2.30	<2.19	<2.21	<2.25	<2.43	<4.20	<2.65	<1.90
Silver	MG/KG	0	26	ND	ND	390	NA		<0.347	<0.607	<0.817	<0.523	<0.422	<0.402	<0.407	<0.414	<0.447	<0.771	<0.487	<0.350
Thallium	MG/KG	0	26	ND	ND	No Standard	No Standard		<2.80	<4.89	<6.58	<4.22	<3.40	<3.24	<3.28	<3.34	<3.60	<6.21	<3.92	<2.82
Zinc	MG/KG	26	26	43.4	328	23000	NA		170	118	203	146	123	163	160	112	187	244	171	88.2

MG/KG - milligrams per kilogram  
DUP - Duplicate  
FS - Field Sample  
SRS - Soil Remediation Standard

< = non-detect at stated reporting limit

J - Estimated value

Yellow shading indicates an exceedance of the SRS

**Appendix E**  
**Wanaque River Sediments Dataset (Phase I RI)**  
Pompton Lakes Works  
Pompton Lakes, New Jersey

Parameter	Units	No. of Detects	No. of Samples	Minimum Detect	Maximum Detect	NJ Residential SRS Ingestion/Dermal Contact	NJ Residential SRS Inhalation	Reach	Reach 2								Reach 3						
								Location ID	WR-12-SD	WR-13-SD	WR-14-SD	WR-15-SD	WR-16-SD	WR-17-SD	WR-18-SD	WR-18-SD	WR-19-SD	WR-20-SD	WR-21-SD	WR-22-SD	WR-23-SD	WR-24-SD	
								Date Sampled	12/16/2009	12/18/2009	12/17/2009	12/17/2009	12/17/2009	12/17/2009	12/17/2009	12/17/2009	12/17/2009	12/17/2009	12/17/2009	12/17/2009	12/17/2009	12/17/2009	12/17/2009
								Sample Purpose	FS	FS	FS	FS	FS	FS	DUP	FS	FS	FS	FS	FS	FS	FS	FS
								Start Depth - End Depth	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
								Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result			
Antimony	MG/KG	0	26	ND	ND	31	NA		<2.09	<3.14	<2.68	<1.85	<2.08	<1.90	<3.15	<2.88	<3.30	<1.46	<2.55	<5.62	<1.48	<5.56	
Arsenic	MG/KG	17	26	1.96	16.2	19	1100		2.23 J	6.57	<2.54	<1.75	2.77 J	1.97 J	16.2	12.9	<3.14	<1.39	<2.43	<5.34	<1.41	<5.28	
Barium	MG/KG	26	26	18.9	128	16000	870000		58.5	112	60.9	39.5	43.7	33.6	127	114	69.7	24.8	52.4	45.6	18.9	36.7	
Beryllium	MG/KG	25	26	0.201	1.55	160	2000		0.545 J	1.12 J	0.619 J	0.341 J	0.399 J	0.302 J	1.55 J	1.28 J	0.538 J	0.404 J	0.697 J	0.523 J	0.201 J	<0.378	
Cadmium	MG/KG	18	26	0.423	1.35	71	2600		0.702 J	0.786 J	0.423 J	<0.258	<0.291	<0.266	1.22 J	1.01 J	<0.462	<0.205	0.531 J	<0.787	<0.207	<0.778	
Chromium	MG/KG	26	26	7.87	48.2	240	270	CrVI	20.1	36.6	21.4	12.7	14.9	12.5	48.2	40.3	17.4	20.5	19.0	16.1	11.5	7.87 J	
Copper	MG/KG	26	26	13.1	297	3100	NA		33.6	139 J	89.7 J	37.1 J	45.1 J	127 J	297 J	253 J	76.6 J	24.2 J	79.5 J	61.5 J	13.1 J	28.8 J	
Lead	MG/KG	26	26	10.1	305	400	NA		39.0	127 J	40.8 J	22.0 J	37.5 J	29.0 J	305 J	226 J	27.5 J	24.9 J	51.9 J	37.9 J	10.1 J	18.6 J	
Mercury	MG/KG	26	26	0.0839	57.4	23	NA		0.415 J	20.1	5.88	9.53	9.14	52.6	24.8	57.4	4.34	3.10	10.3	4.06	0.943	2.88	
Nickel	MG/KG	26	26	5.65	28.5	1600	20000		14.8	23.7	15.5	8.73	10.6	7.92	25.7	23.4	17.8	11.8	14.0	10.4	7.16	5.65	
Selenium	MG/KG	0	26	ND	ND	390	NA		<2.05	<3.08	<2.62	<1.81	<2.04	<1.86	<3.09	<2.82	<3.23	<1.43	<2.50	<5.51	<1.45	<5.45	
Silver	MG/KG	0	26	ND	ND	390	NA		<0.377	<0.566	<0.482	<0.332	<0.374	<0.341	<0.568	<0.519	<0.594	<0.264	<0.460	<1.01	<0.266	<1.00	
Thallium	MG/KG	0	26	ND	ND	No Standard	No Standard		<3.04	<4.56	<3.88	<2.68	<3.01	<2.75	<4.57	<4.18	<4.79	<2.12	<3.70	<8.15	<2.14	<8.06	
Zinc	MG/KG	26	26	43.4	328	23000	NA		123	221 J	142 J	72.0 J	99.1 J	70.2 J	328 J	289 J	117 J	106 J	192 J	128 J	43.4 J	80.0 J	

MG/KG - milligrams per kilogram  
DUP - Duplicate  
FS - Field Sample  
SRS - Soil Remediation Standard

< = non-detect at stated reporting limit  
J - Estimated value

Yellow shading indicates an exceedance of the SRS

**Appendix E**  
**Summary of Total Mercury Concentrations in Wanaque River Sediments (2010-2013)**

Pompton Lakes Works  
Pompton Lakes, New Jersey

Parameter	Units	NJ Residential SRS Ingestion/Dermal Contact	Location ID	WR-13.2C	WR-13.8C	WR-14.2C	WR-15.3A	WR-15.3A	WR-17A	WR-17A	WR-17B	WR-17C	WR-18A	WR-18B	
			Date Sampled	08/06/2012	08/06/2012	08/06/2012	08/06/2012	08/06/2012	11/05/2010	11/05/2010	11/05/2010	11/05/2010	11/05/2010	11/05/2010	11/05/2010
			Sample Purpose	FS	FS	FS	DUP	FS	DUP	FS	FS	FS	FS	FS	FS
			Start Depth - End Depth	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
			Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result
Mercury	MG/KG	23		26.6	43.9	330.0	11.4	35.6	80.8	86.3	72.1	102.0	30.5	23.2	

Parameter	Units	NJ Residential SRS Ingestion/Dermal Contact	Location ID	WR-19.1C	WR-19.6A	WR-21.1A	WR-21B	WR-21B	WR-21B	WR-22.1C	WR14B	WR14C
			Date Sampled	08/06/2012	08/08/2012	08/08/2012	08/08/2012	08/08/2012	08/08/2012	08/09/2012	12/15/2011	12/15/2011
			Sample Purpose	FS	FS	FS	FS	FS	FS	FS	FS	FS
			Start Depth - End Depth	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0.5 - 1	1 - 1.5	0 - 0.5	0 - 0.5	0 - 0.5
			Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result
Mercury	MG/KG	23		23.0	5.1	9.1	7.4	0.3	1.7	7.5	0.0382 J	328 J

Parameter	Units	NJ Residential SRS Ingestion/Dermal Contact	Location ID	WR15.2A	WR15.2B	WR15.2C	WR15.4A-B	WR15.4C	WR15A	WR15A	WR15B	WR16-B	
			Date Sampled	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	11/09/2011
			Sample Purpose	FS	FS	FS	FS	FS	DUP	FS	FS	FS	
			Start Depth - End Depth	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	
			Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	
Mercury	MG/KG	23		12.0 J	0.243 J	12.4 J	4.22 J	16.7 J	7.05 J	5.65 J	0.0949 J	132.0	

Parameter	Units	NJ Residential SRS Ingestion/Dermal Contact	Location ID	WR16.2-A	WR16.2-B	WR16.2-C	WR16.4-A	WR16.4-B	WR16.4-C	WR17-D	WR17-E	WR18-C	WR18-C	WR18D	WR18D		
			Date Sampled	11/09/2011	11/09/2011	11/09/2011	11/09/2011	11/09/2011	11/09/2011	11/09/2011	11/09/2011	11/09/2011	11/10/2011	11/10/2011	12/15/2011	12/15/2011	
			Sample Purpose	FS	FS	FS	FS	FS	FS	FS	FS	FS	DUP	FS	FS	FS	
			Start Depth - End Depth	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	14 - 18
			Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	
Mercury	MG/KG	23		43.3	393.0	17.0	9.0	12.4	12.4	1.5	1430.0	23.7	10.7	9.75 J	27.5 J		

Parameter	Units	NJ Residential SRS Ingestion/Dermal Contact	Location ID	WRGEO-A	WRGEO-B	WRGEO-C
			Date Sampled	10/31/2013	10/30/2013	10/31/2013
			Sample Purpose	FS	FS	FS
			Start Depth - End Depth	0.5 - 1.0	0.8 - 1.0	1.0 - 1.5
			Report Result	Report Result	Report Result	Report Result
Mercury	MG/KG	23		0.0718 J	0.278 J	1.08 J

MG/KG - milligrams per kilogram  
DUP - Duplicate  
FS - Field Sample  
SRS - Soil Remediation Standard

J - Estimated value

Yellow shading indicates an exceedance of the SRS

No. of Samples	44
No. of Detects	44
Minimum Detect	0.0382 J
Maximum Detect	330

**Appendix E**  
**Summary of Total Mercury Concentrations in Wanaque River Sediments (2014)**

Pompton Lakes Works  
Pompton Lakes, New Jersey

Parameter	Units	NJ Residential SRS Ingestion/Dermal Contact	Location ID	WR-T1-A	WR-T1-C	WR-T10-A	WR-T11-A	WR-T11-B	WR-T12-D	WR-T13-A	WR-T13-A	WR-T14-A	WR-T15-A	WR-T15-C	WR-T16-A	WR-T16-C	WR-T17-A			
			Date Sampled	08/18/2014	08/18/2014	08/14/2014	08/14/2014	08/14/2014	08/14/2014	08/14/2014	08/14/2014	08/14/2014	08/13/2014	08/13/2014	08/13/2014	08/13/2014	08/13/2014	08/13/2014	08/13/2014	
			Sample Purpose	FS	FS	FS	FS	FS	FS	DUP	FS	FS	FS	FS	FS	FS	FS	FS	FS	
			Start Depth - End Depth	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5
			Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result
Mercury	MG/KG	23		0.0335 J	0.233	1.84 J	16.3 J	1.17 J	8.99 J	18.1 J	18.2 J	5.84	3.29	93.1	15.6	47.9	22.4			

Parameter	Units	NJ Residential SRS Ingestion/Dermal Contact	Location ID	WR-T18-A	WR-T19-C	WR-T19-D	WR-T2-A	WR-T2-B	WR-T2-C	WR-T20-C	WR-T21-C	WR-T22-B	WR-T23-A	WR-T23-B	WR-T24-A	WR-T24-B	WR-T25-A			
			Date Sampled	08/13/2014	08/13/2014	08/13/2014	08/18/2014	08/18/2014	08/18/2014	08/18/2014	08/12/2014	08/12/2014	08/12/2014	08/12/2014	08/12/2014	08/12/2014	08/12/2014	08/12/2014	08/11/2014	
			Sample Purpose	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	
			Start Depth - End Depth	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5
			Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result
Mercury	MG/KG	23		18.9	165	10.1	101	48.9	0.286	10.2	30.2	13.6	3.61	5.25	11.2	11.3	19.6			

Parameter	Units	NJ Residential SRS Ingestion/Dermal Contact	Location ID	WR-T25-B	WR-T26-A	WR-T26-A	WR-T27-C	WR-T3-A	WR-T3-C	WR-T4-A	WR-T5-B	WR-T6-B	WR-T6-B	WR-T7-A	WR-T7-C	WR-T8-B	WR-T9-A			
			Date Sampled	08/11/2014	08/11/2014	08/11/2014	08/11/2014	08/18/2014	08/18/2014	08/18/2014	08/18/2014	08/18/2014	08/15/2014	08/15/2014	08/15/2014	08/15/2014	08/15/2014	08/15/2014	08/14/2014	
			Sample Purpose	FS	DUP	FS	FS	FS	FS	FS	FS	FS	DUP	FS	FS	FS	FS	FS	FS	
			Start Depth - End Depth	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5
			Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result
Mercury	MG/KG	23		20.7	22.2	14.1	9.55	8.55	1.79	1.24	1.49	1.34 J	1.55 J	297	1.56 J	8.89 J	0.707 J			

Parameter	Units	NJ Residential SRS Ingestion/Dermal Contact	Location ID	WR-12.1	WR-12A	WR-12B	WR-12C	WR-13.1B	WR-13.2B	WR-13.3	WR-13.4	WR-13.6	WR-13.6A	WR-13.6A	WR-13.7	WR-13.7A		
			Date Sampled	01/16/2014	05/14/2014	05/14/2014	05/14/2014	01/16/2014	01/16/2014	01/16/2014	05/15/2014	01/16/2014	05/15/2014	05/15/2014	05/15/2014	01/16/2014	05/15/2014	
			Sample Purpose	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	DUP	FS	FS	FS	
			Start Depth - End Depth	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5
			Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result
Mercury	MG/KG	23		11.8	53.8 J	0.507 J	2.68 J	1.71	0.384	1.74	50.8	25.7	331 J	69.3 J	117	573		

Parameter	Units	NJ Residential SRS Ingestion/Dermal Contact	Location ID	WR-13.9	WR-13.9A	WR-14.2A	WR-14.2B	WR-14.7	WR-14.8B	WR-14.9	WR-15.2D	WR-15.3B	WR-15.5	WR-15.5	WR-15.5A	
			Date Sampled	01/16/2014	05/15/2014	05/15/2014	01/16/2014	01/16/2014	01/16/2014	01/16/2014	01/16/2014	01/16/2014	01/16/2014	01/16/2014	01/16/2014	05/15/2014
			Sample Purpose	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	DUP	FS	FS
			Start Depth - End Depth	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5
			Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result
Mercury	MG/KG	23		652	512	63.1	495	19.2	3.8	0.751	8.64	8.84	77.6 J	16.1 J	56.2	

MG/KG - milligrams per kilogram  
DUP - Duplicate  
FS - Field Sample  
SRS - Soil Remediation Standard

J - Estimated value

Yellow shading indicates an exceedance of the SRS

No. of Samples	67
No. of Detects	67
Minimum Detect	0.0335 J
Maximum Detect	652

**APPENDIX F**  
**Summary of Total Mercury Concentrations in Ramapo River**  
**Sediments**

Appendix F  
 Summary of Total Mercury Concentrations in Ramapo River Sediments  
 Pompton Lakes Works  
 Pompton Lakes, New Jersey

Parameter	Units	NJ Residential SRS Ingestion/Dermal Contact	Location ID	RPR-01	RPR-01	RPR-02	RPR-03	RPR-04	RPR-05	RPR-06	RPR-07	RPR-07	RPR-08	RPR-08	RPR-09	
			Date Sampled	07/29/2014	07/29/2014	07/29/2014	07/28/2014	07/28/2014	07/28/2014	07/28/2014	07/28/2014	07/28/2014	07/28/2014	07/28/2014	07/28/2014	07/29/2014
			Sample Purpose	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
			Start Depth - End Depth	0.0 - 0.5	0.5 - 0.75	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.5 - 0.75	0.0 - 0.5	0.5 - 1.0	0.0 - 0.5
			Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result		
Mercury	MG/KG	23		0.435 J	0.122 J	0.123 J	0.639	0.933	0.481	0.401	3.92	0.0299 J	3.97	3.38	0.733 J	

Parameter	Units	NJ Residential SRS Ingestion/Dermal Contact	Location ID	RPR-10	RPR-11	RPR-12	RPR-12	RPR-13	RPR-13	RPR-13	RPR-14	RPR-14	RPR-14	RPR-15	RPR-15		
			Date Sampled	07/29/2014	07/29/2014	07/29/2014	07/29/2014	07/29/2014	07/29/2014	07/29/2014	07/29/2014	07/29/2014	07/29/2014	07/29/2014	07/29/2014	07/29/2014	07/29/2014
			Sample Purpose	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	DUP	FS	
			Start Depth - End Depth	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.5 - 0.75	0.0 - 0.5	0.5 - 1.0	1.0 - 1.1	0.0 - 0.5	0.5 - 1.0	1.0 - 1.5	0.0 - 0.5	0.0 - 0.5		
			Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result			
Mercury	MG/KG	23		0.0389 J	0.101 J	2.77 J	4.97 J	0.690 J	0.529 J	0.184 J	0.551 J	0.286 J	0.207 J	23.9 J	23.5 J		

Parameter	Units	NJ Residential SRS Ingestion/Dermal Contact	Location ID	RPR-15	RPR-16	RPR-17	RPR-17	RPR-18	RPR-18	RPR-19	RPR-19	RPR-20	RPR-20	RPR-20		
			Date Sampled	07/29/2014	07/29/2014	07/29/2014	07/29/2014	07/29/2014	07/29/2014	07/29/2014	07/29/2014	07/29/2014	07/29/2014	07/30/2014	07/30/2014	07/30/2014
			Sample Purpose	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
			Start Depth - End Depth	0.5 - 1.0	0.0 - 0.5	0.0 - 0.5	0.5 - 1.0	0.0 - 0.5	0.5 - 0.8	0.0 - 0.5	0.5 - 0.8	0.0 - 0.5	0.5 - 1.0	1.0 - 1.4		
			Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result			
Mercury	MG/KG	23		6.34 J	0.448 J	1.61 J	2.00 J	2.41 J	2.15 J	0.344 J	0.377 J	0.215	<0.0127	<0.0128		

Parameter	Units	NJ Residential SRS Ingestion/Dermal Contact	Location ID	RPR-21	RPR-21	RPR-21	RPR-22	RPR-23	RPR-23	RPR-24	RPR-25	RPR-25	RPR-26	RPR-26	RPR-26	
			Date Sampled	07/31/2014	07/31/2014	07/31/2014	07/30/2014	07/31/2014	07/31/2014	07/30/2014	07/30/2014	07/30/2014	07/30/2014	07/30/2014	07/30/2014	07/30/2014
			Sample Purpose	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	DUP	FS	FS
			Start Depth - End Depth	0.0 - 0.5	0.5 - 1.0	1.0 - 1.2	0.0 - 0.5	0.0 - 0.5	0.5 - 0.9	0.0 - 0.5	0.0 - 0.5	0.5 - 0.95	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.5 - 1.0
			Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result		
Mercury	MG/KG	23		3.31 J	0.192 J	0.476 J	0.382	1.86 J	0.141 J	0.275	0.310	0.714	5.95	4.95	7.36	

Parameter	Units	NJ Residential SRS Ingestion/Dermal Contact	Location ID	RPR-27	RPR-27	RPR-28	RPR-29	RPR-29	RPR-30	RPR-31	RPR-31	RPR-32	RPR-32	RPR-33	RPR-34	RPR-34	
			Date Sampled	07/30/2014	07/30/2014	07/30/2014	07/30/2014	07/30/2014	07/30/2014	07/30/2014	07/31/2014	07/31/2014	07/31/2014	07/31/2014	07/31/2014	07/31/2014	07/31/2014
			Sample Purpose	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
			Start Depth - End Depth	0.0 - 0.5	0.5 - 1.0	0.0 - 0.5	0.0 - 0.5	0.5 - 0.75	0.0 - 0.5	0.0 - 0.5	0.5 - 0.9	0.0 - 0.5	0.5 - 1.0	0.0 - 0.5	0.5 - 1.0	0.0 - 0.5	0.0 - 0.5
			Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result		
Mercury	MG/KG	23		0.276	1.12	0.711	0.941	0.300	0.579	0.196 J	0.101 J	0.169 J	<0.0123 UJ	0.0643 J	0.0353 J	<0.0122 UJ	

MG/KG - milligrams per kilogram  
 DUP - Duplicate  
 FS - Field Sample  
 SRS - Soil Remediation Standard

J - Estimated value

Yellow shading indicates an exceedance of the SRS

No. of Samples	60
No. of Detects	56
Minimum Detect	0.0299 J
Maximum Detect	23.9 J