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March 8, 2017

Ms. Sally Dewes
Environmental Engineer II
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau B, Section D
625 Broadway
Albany, New York 12233-7016

Re: Howland Hook Marine Terminal – Port Ivory Facility Site 1
40 Western Avenue, Staten Island, New York
VCP Site Number: V-00615-2
2016 Periodic Review Report

Dear Ms. Dewes:

This Periodic Review Report (PRR) describes activities completed at Site 1 (Voluntary Cleanup Program (VCP) Site Number V-00615-2) of the Howland Hook Marine Terminal (HHMT) - Port Ivory Facility located at 40 Western Avenue, Staten Island, New York (the Site), during the 2016 reporting period (January 23, 2016 through January 22, 2017) in accordance with the Site Management Plan (SMP). This PRR includes the following information:

- Identification, assessment and certification of the Engineering Control/Institutional Control (EC/IC) required by the remedy for the Site;
- Results of the required annual Site inspections;
- Applicable inspection forms and other records generated for the Site during the reporting period;
- Data summary tables of contaminants of concern by media (groundwater and surface water), which include a listing of parameters analyzed, along with the applicable standards, with exceedances highlighted;
- Results of analyses, copies of laboratory data sheets, and the required laboratory data deliverables for samples collected during the reporting period;
- A site evaluation, which includes the following:
    - The compliance of the remedy with the requirements of the Site-specific Remedial Action Work Plan (RAWP);
    - Any new conclusions or observations regarding Site contamination based on inspections or data generated by the Monitoring Plan for the media being monitored;

- Recommendations regarding any necessary changes to the remedy and/or Monitoring Plan; and
- The overall performance and effectiveness of the remedy.

Note that the 2015 Investigation Work Plan (IWP) was implemented during this reporting period to address the concentrations of toluene detected in groundwater samples collected from monitoring well PRW-7 (refer to the "Groundwater and Surface Water Monitoring" section in this PRR). The results of the implementation of the 2015 IWP were presented to the New York State Department of Environmental Conservation (NYSDEC) in the 2016 Investigation Report dated November 4, 2016. In the 2016 Investigation Report, the installation of one additional delineation well, PRW-7E, and collection and laboratory analysis for toluene and monitored natural attenuation (MNA) parameters of one groundwater sample was proposed. As of the date of this PRR, an approval letter for the 2015 IWP has not been received.

There were no areas of non-compliance regarding elements of the SMP. Continued annual submission of Periodic Review Reports is recommended; however, the following changes to the Monitoring Plan are proposed:

- As part of the 2017 annual sampling event, groundwater samples will be collected from PRW-7A through PRW-7D for analysis for toluene and MNA parameters including magnesium (total), total alkalinity, total kjeldahl nitrogen, total organic carbon, and sulfate and two surface water samples, SW-6, and SW-7 will be collected for analysis for toluene to confirm that on-Site groundwater conditions are not impacting surface water quality in Bridge Creek. It is anticipated that one additional monitoring well, PRW-7E will be installed at least two weeks prior to the 2017 annual sampling event (in accordance with the 2016 Investigation Report) and a groundwater sample will be collected from PRW-7E at the same time as the remaining Site 1 wells.

Site Description

The Site is a portion of the HHMT - Port Ivory Facility, which consists of three parcels: Block 1309, Lot 10; Block 1338, Lot 1; and Block 1400, Lot 1. Public roadways separate the three parcels: Western Avenue separates Block 1400, Lot 1 from Block 1338, Lot 1 and Richmond Terrace separates Block 1309, Lot 10 from Block 1338, Lot 1 and Block 1400, Lot 1. As shown on **Figure 1**, the HHMT - Port Ivory Facility is bordered by Bridge Creek to the west, the Arthur Kill to the north, wetlands and undeveloped land to the east, and railroad tracks to the south.

The Site consists of 14.95 acres of the 123.75-acre HHMT - Port Ivory Facility (refer to **Figure 1**). The Site is bordered by VCP Site 2 (Area 2A) to the east and south, Richmond Terrace to the north, and Bridge Creek to the west. Vehicular access to the northern portion of the Site is provided from Richmond Terrace. A paved roadway oriented east-west is located on the central portion of the Site and provides access to the New York Container Terminal (NYCT) property, which is across Bridge Creek from (i.e., to the west of) the Site. Currently there are no structures on the Site and it is used for container storage by NYCT.

The Port Authority of New York and New Jersey (the Port Authority) is in the process of redeveloping the HHMT - Port Ivory Facility for industrial use; specifically, the Port Authority intends to utilize the Site as an intermodal facility. With regard to the HHMT - Port Ivory Facility, an intermodal facility is defined as

a facility where cargo transported by ship is transferred to intermediate and final destinations via rail or truck.

Site History

The Port Authority purchased the HHMT - Port Ivory Facility from P&G in 2000. P&G used the Facility for the manufacture, warehousing, and distribution of edible oils, baking mixes, orange juice, and other foodstuffs; manufacture, warehousing, and distribution of soaps and cleaning products; and, burning of wood chips for fuel. In addition, numerous easements were established by various energy companies for underground pipelines that conveyed petroleum products. Operations at the P&G Facility began in or about 1908 and continued through approximately 1990.

The Port Authority entered into the NYSDEC VCP in June 2004. The Port Authority's objective for entering into the VCP was to investigate and remediate metals and organic compounds in soil, surface water, sediment, and/or groundwater with NYSDEC oversight. The presence of these substances is attributable to prior Facility operations by P&G that were/are unrelated to the Port Authority. The Port Authority has established different redevelopment schedules for different areas at the HHMT - Port Ivory Facility, and the NYSDEC agreed to expedite the review of information pertaining to these areas. Thus, the Port Authority agreed to establish three VCP Sites at the facility and to present assessment, investigation, and remedial action information/documentation for each Site.

Remedial Investigation

After cessation of P&G operations at the Port Ivory Facility, the Port Authority purchased the property and removed most of the remaining infrastructure at Site 1. The Port Authority retained Hatch Mott McDonald (HMM) to conduct the necessary environmental investigations. HMM's environmental evaluation efforts at the Site included the performance of a Phase I Environmental Site Assessment (Phase I ESA) with a supplemental file review, a Site Investigation (SI), a Remedial Investigation (RI), a Supplemental Remedial Investigation (SRI) and a Focused Supplemental Remedial Investigation (FSRI). The results of these investigations are summarized in the Comprehensive Remedial Investigation Report (CRIR) dated July 2007.

Both the Phase I ESA and the SI were conducted prior to the Port Authority's purchase of the Facility in December 2000, while the RI and SRI were conducted subsequent to the transfer of the property from P&G to the Port Authority. The RI and SRI were conducted to characterize the nature and extent of impacts in environmental media at and immediately adjacent to the Site. Based on the results of the RI and SRI, the Port Authority identified 18 areas of concern (AOCs) at Site 1. Based on the results of the RI, remedial action was deemed necessary at five AOCs, which are described below.

Interim Remedial Measure (IRM) and Remedial Actions

The Port Authority completed an IRM consisting of excavation and off-Site disposal of soil at five AOCs. The IRM was completed to address petroleum impacts at AOC-Area A, AOC-Area B, AOC-Former Structures (FS-1B), elevated concentrations of arsenic at AOC-Wood Yard; and to delineate the extent of petroleum impacts at AOC-UST2. Separate IRM reports were not generated; however, the IRM is documented in the CRIR, dated July 2007 and the Final Engineering Report (FER) dated March 2014. A

summary of the IRM activities conducted in connection with each of the five AOCs is presented in the table below.

Summary of Completed IRM		
Area of Concern	**Nature of Concern**	**Remedy**
AOC-Area A	Petroleum impacted soil near several former ASTs.	Soil was excavated and disposed of off-site and post-excavation soil samples were collected. Semi-volatile organic compounds (SVOCs) detected in post-excavation soil samples were attributed to fill material.
AOC-Area B	Petroleum impacted soil near several former ASTs.	Soil was excavated and disposed of off-site and post-excavation soil samples were collected. SVOCs detected in post-excavation soil samples were attributed to fill material.
AOC-Wood Yard	Elevated concentrations of arsenic in subsurface soil to a maximum depth of approximately 1.5 feet below ground surface.	Soil was excavated and disposed of off-site.
AOC-Former Structures (Vicinity of FS-1B)	Light non-aqueous phase liquid (LNAPL)-impacted soil encountered near soil boring.	Soil was excavated and disposed of off-site and post-excavation soil samples were collected. SVOCs detected in post-excavation soil samples were attributed to fill material.
AOC- UST2	Presence of mobile LNAPL identified during the RI and SRI.	Six test pits were excavated to delineate the horizontal extent of mobile LNAPL. Additional remedial action was performed in accordance with

Following completion of the IRM, construction of an environmental cap and establishment of a Deed Restriction were implemented in accordance with the March 2007 RAWP. Additionally, excavation and off-site disposal of soil and the removal of mobile LNAPL via vacuum extraction at AOC-UST2 were performed in accordance with the RAWP. One volatile organic compound (VOC), acetone, and four SVOCs (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene and chrysene) were detected in post-excavation soil samples collected from AOC-UST2 at concentrations similar to concentrations in soil throughout the HHMT - Port Ivory Facility.

As documented in the FER, the results of the remedial activities conducted in VCP Site V-00615-2 (Site 1) indicated that the identified AOCs were satisfactorily addressed. As mentioned above, NYSDEC issued a "Release and Covenant Not to Sue" determination letter dated May 27, 2014 after reviewing the FER and SMP.

Following completion of the remedial measures, impacted soil and groundwater remain at Site 1. As a result, an EC and an IC are required to protect human health and the environment. The Port Authority constructed an environmental cap as an EC and has established a Site-wide Deed Restriction as an IC. Additional details regarding the EC and IC are provided below.

Engineering Control

The EC for the Site consists of an environmental cap. As required in the RAWP, exposure to impacted soil and groundwater beneath the Site is prevented by an environmental cap placed above the impacted soil. The environmental cap consists of concrete pavement, asphalt pavement, or one foot of crushed stone.

The environmental cap is a permanent control, and must be inspected until the NYSDEC confirms in writing that the Site-wide Deed Restriction is no longer necessary. Inspections of the EC are discussed below.

Institutional Control

The IC is required by the RAWP to (1) implement, maintain, and monitor the EC, (2) prevent future exposure to impacted soil and groundwater remaining beneath the Site, (3) prevent groundwater usage without treatment, and, (4) limit the use and development of the Site to industrial and commercial uses only. The IC for the Site is a Deed Restriction, which the Port Authority recorded at the Richmond County Courthouse.

General provisions of the Deed Restriction include the following:

- Compliance with the Deed Restriction and the NYSDEC-approved SMP;
- Limiting the use and development of the property to industrial/commercial uses only;
- Restricting disturbance of the environmental cap unless in accordance with the SMP;
- Inspection of the environmental cap at a frequency and in a manner defined in the SMP;
- Operation and maintenance of the environmental cap as specified in the SMP; and,
- Restricting the use of groundwater as a source of potable water, without necessary water quality treatment as determined by NYSDOH.

The Deed Restriction will notify future property owners of the impacts at the Site. The Deed Restriction will remain in effect until the NYSDEC informs the Port Authority in writing that the Deed Restriction is no longer needed.

Site Inspections

The SMP requires periodic inspections of Site 1 to confirm that the cap continues to limit exposure to underlying impacted soil and groundwater. TRC representative Ms. Lindsay Metcalf conducted an inspection of Site 1 on April 7, 2016 and Mr. George Gatta conducted the inspection of Site 1 on September 29, 2016. The inspections confirmed that the environmental cap is in good condition and that it continues to limit exposure to underlying impacted soil and groundwater.

The conditions of the environmental cap observed during the April 7, 2016 inspection were consistent with the conditions of the environmental cap observed during the September 29, 2016 inspection with the exception of the following: four monitoring wells (PRW-7A, PRW-7B, PRW-7C, and PRW-7D) were installed in Site 1 between May and June 2016. The well installation activities are described in the 2016 Investigation Report, which was submitted to the NYSDEC on November 4, 2016.

The conditions of the environmental cap during the April 7, 2016 and September 29, 2016 inspections are presented on **Figure 2**. Photographic documentation of the Site inspections is provided in **Attachment A**.

Groundwater and Surface Water Monitoring

In April 2016, three surface water samples, SW-4 and SW-5 (and one duplicate) were collected from Bridge Creek and groundwater samples were collected from monitoring wells PRW-1 through PRW-7 in accordance with the NYSDEC-approved SMP. Additionally, surface water elevations were measured at three gauging stations along Bridge Creek. The locations of the Site 1 monitoring wells, surface water sampling locations, and gauging stations are shown on **Figure 3**. Groundwater sampling logs are provided in **Attachment B.**

As noted above, four monitoring wells (PRW-7A, PRW-7B, PRW-7C, and PRW-7D) were installed in Site 1 between May 19 and June 17, 2016. On July 27, 2016, groundwater samples were collected from these four wells and from PRW-7 for analysis for toluene and MNA parameters including, magnesium (total), total alkalinity, total kjeldahl nitrogen, total organic carbon, and sulfate. Additionally, two surface water samples, SW-6 and SW-7, were collected from Bridge Creek for analysis for toluene. The well installations and sampling results are described in the 2016 Investigation Report, which was submitted to NYSDEC on November 4, 2016. The 2016 Investigation Report is included in **Attachment C.**

Attached are the tabulated results of the analyses of the groundwater samples and the surface water samples collected in April 2016 (refer to **Tables 1 through 6**). Also attached are the April 6, 2016 groundwater surface elevation contour maps generated from high tide and low tide measurements (refer to **Figures 4 and 5**). Additionally, the groundwater surface elevation contour map generated from water level measurements collected on July 27, 2016 is presented as **Figure 6.** Laboratory analytical data packages are provided in **Attachment D**. A brief discussion of the analytical results is presented below.

Groundwater Sampling – Summary of Analytical Results

Groundwater samples collected in April 2016 were analyzed for VOCs, SVOCs, metals and cyanide. As shown on the attached tables, the following compounds/parameters were detected at concentrations above the NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1 Class GA Standards and Guidance Values (Class GA Values):

- VOCs: toluene (in PRW-3, PRW-4, and PRW-7); and,
- Metals: lead (in PRW-1, filtered).

SVOCs, cyanide and the remaining VOCs and metals were not detected or were detected at concentrations below Class GA Values.

During the July 2016 sampling event, toluene was detected at concentrations above the Class GA Value in four of the five groundwater samples collected (in PRW-7, PRW-7A, PRW-7B and PRW-7D), at concentrations ranging between 630 (in PRW-7A) and 84,000 micrograms per liter (µg/L) (in PRW-7). Toluene was not detected in the groundwater sample collected from PRW-7C.

The results from 2014, 2015, and 2016 annual sampling event, as well as the results for toluene from the July 2016 sampling event, completed as part of implementation of the 2015 Investigation Work Plan that exceeded Class GA Values are shown on **Figure 7**.

Surface Water Elevations – Summary of Results

The surface water elevations measured at Bridge Creek during high tide and low tide in April 2016 are presented below.

Surface Water Elevations – April 2016		
Gauging Station Number	**Low Tide Elevation (Feet)**	**High Tide Elevation (Feet)**
1	1.58	3.06
2	1.29	3.11
3	-0.60	2.99

Note: Datum is NAVD 1983

Review of the surface water elevations indicates that during low tide and high tide, the surface water flowed north toward Gauging Station No. 3 and the Arthur Kill (located northwest of Site 1). The results of the gauging event indicate that Bridge Creek is tidally influenced. The locations of the gauging stations are shown on **Figure 3**.

Surface Water Sampling – Summary of Analytical Results

The three surface water samples, SW-4 and SW-5 (and one duplicate) collected in April 2016 were analyzed for VOCs, SVOCs, metals, and cyanide. Two surface water samples (SW-6 and SW-7) were also collected in July 2016 for analysis for toluene as part of implementation of the 2015 Investigation Work Plan. As shown in the attached tables, the following parameter was detected at concentrations above the TOGS 1.1.1 Ambient Water Quality Standards for Class SD Saline Surface Water (AWQS):

- The metal copper (unfiltered in SW-4, and in its unfiltered duplicate sample, and in the unfiltered sample from SW-5).

The remaining metals were not detected or were detected at concentrations below the AWQS. No VOCs or SVOCs were detected above AWQS. Cyanide was not detected in the surface water samples at concentrations above the AWQS. Toluene was not detected in the two surface water samples (SW-6 and SW-7) collected in July 2016.

The results exceeding the AWQSGVs during the 2014, 2015, and 2016 annual sampling events are shown on **Figure 7**.

Conclusions – Groundwater and Surface Water Sampling

Although one VOC (toluene) and one metal (lead) were detected in groundwater at concentrations above the Class GA Values, these compounds/parameters were not detected in surface water at concentrations above the AWQS. Similarly, the metal copper, which was detected in surface water at concentrations

which exceed the AWQS, was not found in groundwater at concentrations exceeding Class GA Values. Based on the results, TRC concludes that surface water quality at Bridge Creek has not been degraded by Site groundwater and sediment sampling is not required.

The concentrations of toluene detected in groundwater in one monitoring well, PRW-7, are consistent between the 2014, 2015, and 2016 sampling events. Additional investigation of elevated concentrations of toluene in groundwater in the vicinity of PRW-7 was completed between May and July 2016 in accordance with the 2015 Investigation Work Plan and the results are presented in the 2016 Investigation Report dated November 4, 2016 (refer to **Attachment C)**. Based on the results of the investigation, installation of one additional monitoring well, PRW-7E, was recommended. It is anticipated that PRW-7E will be installed at least two weeks prior to the 2017 annual sampling event and sampled at the same time as the remaining Site 1 wells. Additionally, during the annual sampling event, groundwater samples will be collected from PRW-7A through PRW-7D for analysis for toluene and MNA parameters including magnesium (total), total alkalinity, total kjeldahl nitrogen, total organic carbon, and sulfate and two surface water samples, SW-6, and SW-7 will be collected (in addition to SW-4 and SW-5) for analysis for toluene to confirm that on-Site groundwater conditions are not impacting surface water quality in Bridge Creek.

Certification of Engineering and Institutional Controls

The annual certification for Site 1, consisting of a completed NYSDEC Institutional and Engineering Controls Certification Form (Form 1), dated March 8, 2017, is attached. The annual certification was prepared in accordance with the SMP and has been certified by a Qualified Environmental Professional.

Conclusions and Recommendations

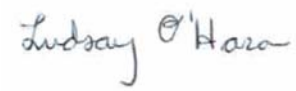
Based on the evaluation of the inspection and monitoring data presented in this PRR, the following can be concluded:

- The EC and IC are in place, perform properly and remain effective;
- Surface water conditions are consistent with the results of previous sampling events performed at Site 1; and,
- Groundwater conditions are consistent with the results of previous sampling events performed at Site 1. Note that the concentrations of toluene detected in groundwater in one monitoring well, PRW-7, are consistent between the 2014, 2015, and 2016 sampling events. Four delineation wells, PRW-7A through PRW-7D, were installed in the vicinity of PRW-7 and sampled in July 2016. The highest concentration of toluene was detected in the groundwater sample collected from PRW-7B at 45,000 µg/L. A groundwater sample was also collected from PRW-7 in July 2016 and the concentration of toluene was reported at 84,000 µg/L.
- Continued annual groundwater monitoring and sampling is recommended through the end of the next monitoring period (January 22, 2018) and at that time, available data will be evaluated to determine if groundwater and surface water conditions are consistent with the results of previous sampling events.

As noted above, it is anticipated that PRW-7E will be installed at least two weeks prior to the 2017 annual sampling event in accordance with the 2016 Investigation Report and sampled at the same time as the remaining Site 1 wells. Additionally, during the annual sampling event, groundwater samples will be collected from PRW-7A through PRW-7D for analysis for toluene and MNA parameters including magnesium (total), total alkalinity, total kjeldahl nitrogen, total organic carbon, and sulfate and two surface water samples, SW-6, and SW-7 will be collected (in addition to SW-4 and SW-5) for analysis for toluene to confirm that on-Site groundwater conditions are not impacting surface water quality in Bridge Creek.

Please let me know if you have any questions pertaining to this PRR.

Very truly yours,
TRC Engineers, Inc.



Lindsay O'Hara, CHMM
Project Manager

Enclosures:
Figure 1 – Site Location Map
Figure 2 – Engineering Control Map with Environmental Cap (April 7, 2016 and September 29, 2016)
Figure 3 – Groundwater and Surface Water Monitoring Locations and Surface Water Gauging Stations
Figure 4 – Groundwater Elevation Contour Map (High Tide – April 6, 2016)
Figure 5 – Groundwater Elevation Contour Map (Low Tide – April 6, 2016)
Figure 6 – Groundwater Elevation Contour Map (Low Tide – July 27, 2016)
Figure 7 – Summary of 2014, 2015, and 2016 Groundwater and Surface Water Sampling Results

Table 1 – Summary of 2016 Results of Analysis of Groundwater for Volatile Organic Compounds
Table 2 – Summary of 2016 Results of Analysis of Groundwater for Semi-Volatile Organic Compounds
Table 3 – Summary of 2016 Results of Analysis of Groundwater for Metals and Cyanide
Table 4 – Summary of 2016 Results of Analysis of Surface Water for Volatile Organic Compounds
Table 5 – Summary of 2016 Results of Analysis of Surface Water for Semi-Volatile Organic Compounds
Table 6 – Summary of 2016 Results of Analysis of Surface Water for Metals and Cyanide

Attachment A – Photographic Log
Attachment B – Groundwater Sampling Logs
Attachment C – 2016 Investigation Report dated November 4, 2016
Attachment D – Laboratory Analytical Data Reports (on CD)

Form 1 - NYSDEC Institutional and Engineering Controls Certification Form

cc. W. Glynn, PANYNJ
C. Guder, PANYNJ

A. Altieri, PANYNJ
B. Francese, TRC
D. Glass, TRC

FIGURES

SOURCE:
UNITED STATES GEOLOGICAL SURVEY
7.5 MINUTE SERIES TOPOGRAPHIC QUADRANGLES
ELIZABETH AND ARTHUR KILL, NY-NJ, 1967,
PHOTOREVISED 1981

NOTES:
HHMT - PORT IVORY FACILITY CONSISTS
OF SITES 1 THROUGH 3.

2000 0 2000 4000
SCALE IN FEET
1" = 2000'
CONTOUR INTERVAL = 10 FEET

THE PORT AUTHORITY OF NY & NJ	HHMT - PORT IVORY FACILITY	Discipline: ENGINEERING DEPARTMENT	MARCH 2017 (Date)	1 of 6
LMETCALF (Designed by) HDELGADO (Drawn by) BFRANCESE (Checked by)	SITE 1	SITE LOCATION MAP	Contract Number / PID Number	Workorder Number / Drawing Number: FIGURE 1

LEGEND:

- ASPHALT COVER
- CONCRETE COVER
- CRUSHED STONE COVER
- VCP SITE BOUNDARY

NOTES:

1. BUILDING NO. 40 HAS BEEN DEMOLISHED. A MODULAR BUILDING MOUNTED ON PIERS HAS BEEN CONSTRUCTED IN THE FOOTPRINT OF FORMER BUILDING 40.
2. CONDITIONS OF THE ENVIRONMENTAL CAP WERE CONSISTENT BETWEEN THE APRIL 7, 2016 AND SEPTEMBER 29, 2016 SITE INSPECTIONS.

0 80 160
SCALE IN FEET

Sheet 2 of 7

THE PORT AUTHORITY
OF NY & NJ

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

HHMT
PORT IVORY
FACILITY - SITE 1

ENVIRONMENTAL

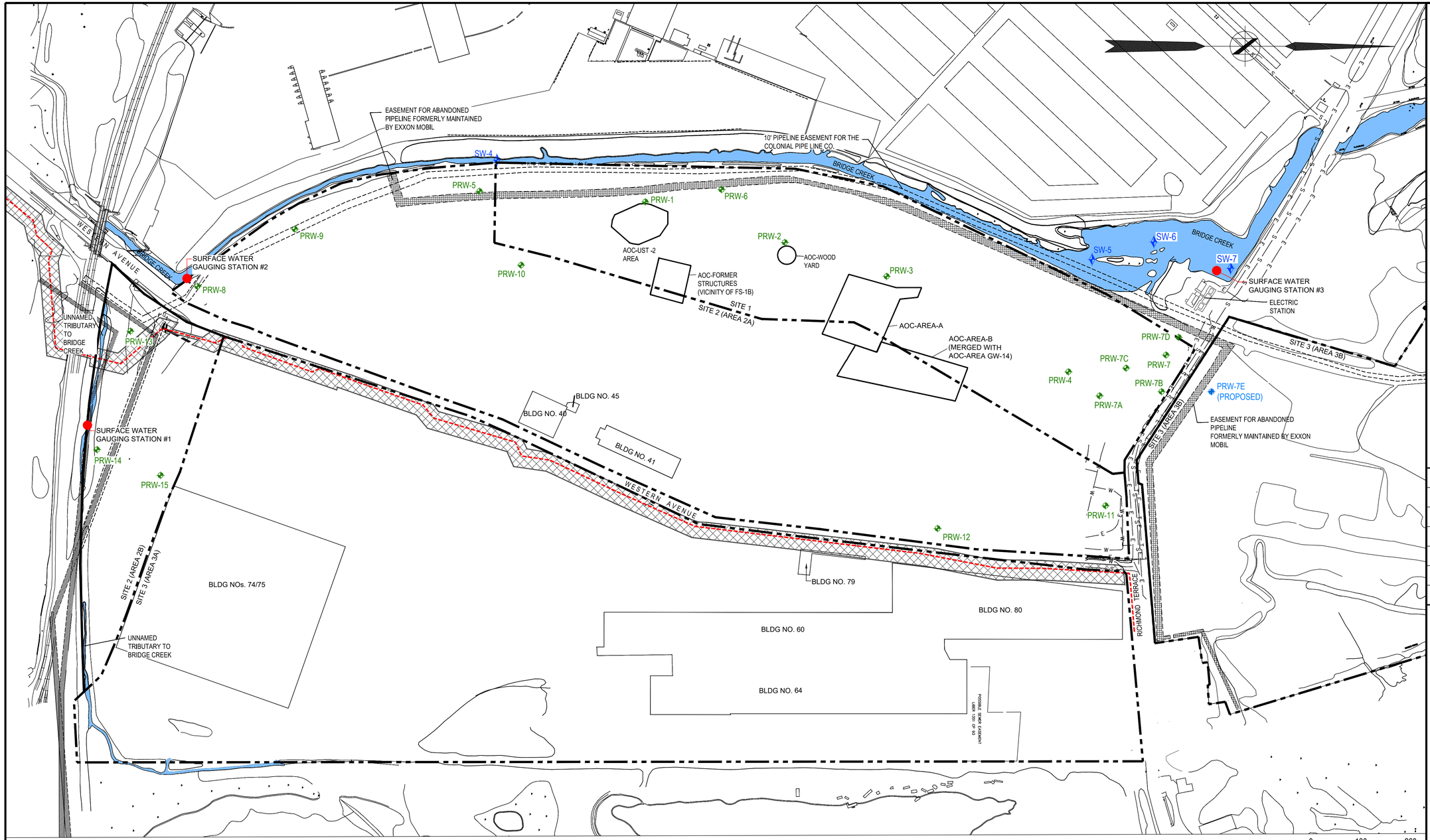
Title

ENGINEERING CONTROL MAP - ENVIRONMENTAL CAP (APRIL 7, 2016 AND SEPTEMBER 29, 2016 INSPECTION)

Designed by	L.METCALF
Drawn by	H.DELGADO
Checked by	B.FRANCESE
Date	MARCH 2017
Contract Number	

Drawing Number **FIGURE 2**

PID#



LEGEND (SYMBOLS NOT TO SCALE):

- VCP SITE BOUNDARY
- EXISTING BUILDING
- SW-4 — SURFACE WATER SAMPLING LOCATION
- PRW-7 — GROUNDWATER MONITORING WELL LOCATION
- 30" SPECTRA PIPELINE
- APPROXIMATE AREA OF SPECTRA PIPELINE EASEMENT
- E — E — E — APPROXIMATE LOCATION OF ELECTRIC LINE
- S — S — S — APPROXIMATE LOCATION OF SANITARY LINE
- T — T — T — APPROXIMATE LOCATION OF TELECOMMUNICATION LINE
- W — W — W — APPROXIMATE LOCATION OF WATER LINE
- APPROXIMATE LOCATION OF SURFACE WATER GAUGING STATION

NOTES:

1. BUILDING NO. 40 HAS BEEN DEMOLISHED. A MODULAR BUILDING MOUNTED ON PIERS HAS BEEN CONSTRUCTED IN THE FOOTPRINT OF FORMER BUILDING 40.
2. VCP - VOLUNTARY CLEANUP PROGRAM

Sheet 3 of 7

THE PORT AUTHORITY OF NY & NJ

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

HHMT
PORT IVORY
FACILITY - SITE 1

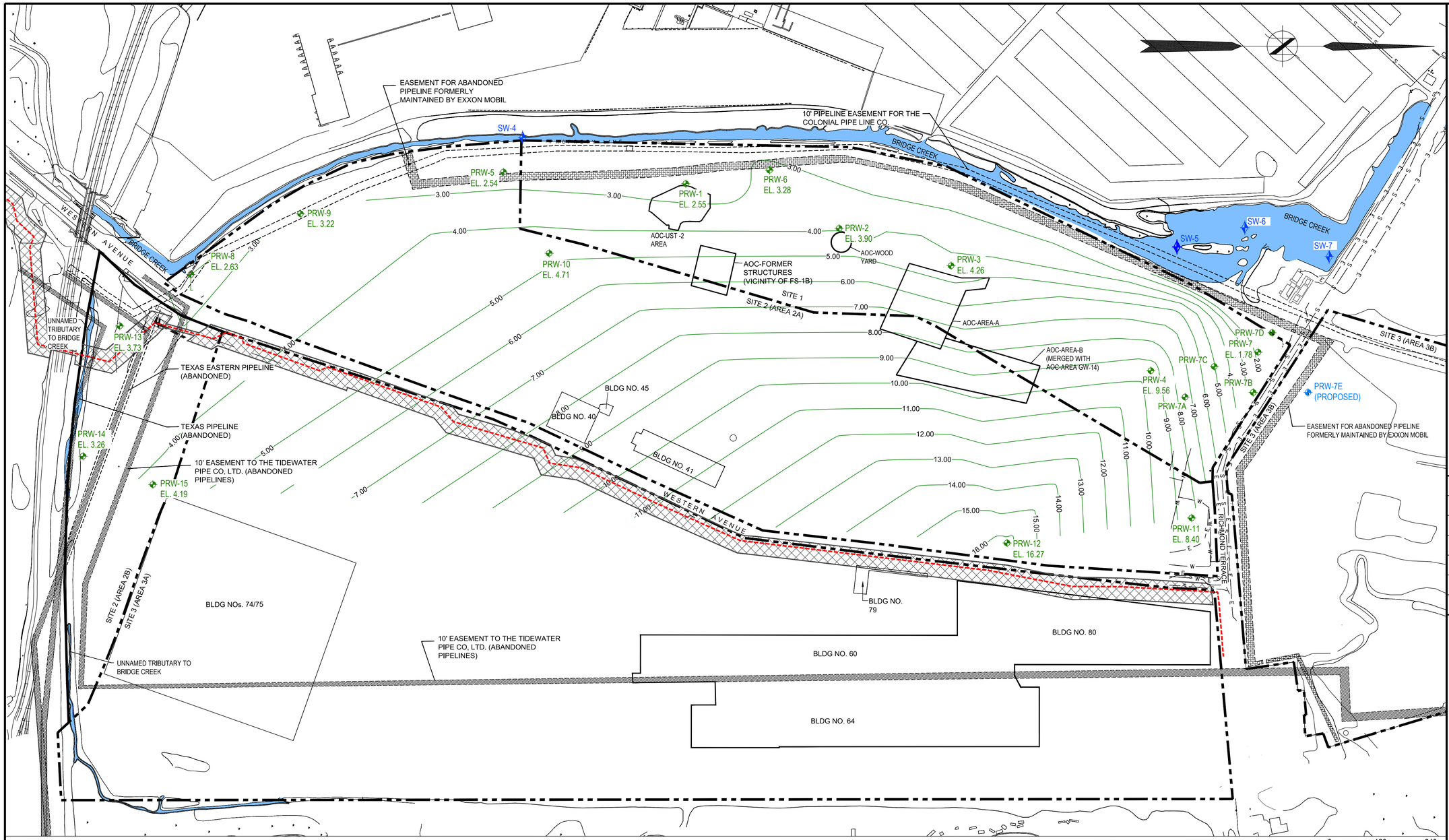
ENVIRONMENTAL

Title

GROUNDWATER AND SURFACE WATER SAMPLING LOCATIONS AND SURFACE WATER GAUGING STATIONS

Designed by	L.METCALF
Drawn by	H.DELGADO
Checked by	B.FRANCESE
Date	MARCH 2017
Contract Number	
Drawing Number	FIGURE 3

PID#



LEGEND (SYMBOLS NOT TO SCALE):

- VCP SITE BOUNDARY
- EXISTING BUILDING
- SW-4 — SURFACE WATER SAMPLING LOCATION
- PRW-7 — GROUNDWATER MONITORING WELL LOCATION
- 30" SPECTRA PIPELINE
- APPROXIMATE AREA OF SPECTRA PIPELINE EASEMENT
- E — E — E — APPROXIMATE LOCATION OF ELECTRIC LINE
- S — S — S — APPROXIMATE LOCATION OF SANITARY LINE
- T — T — T — APPROXIMATE LOCATION OF TELECOMMUNICATION LINE
- W — W — W — APPROXIMATE LOCATION OF WATER LINE
- 12.00 — GROUNDWATER SURFACE ELEVATION CONTOUR (FEET)
- EL. 2.55 — GROUNDWATER SURFACE ELEVATION (FEET)

NOTES:

1. BUILDING NO. 40 HAS BEEN DEMOLISHED. A MODULAR BUILDING MOUNTED ON PIERS HAS BEEN CONSTRUCTED IN THE FOOTPRINT OF FORMER BUILDING 40.
2. VCP - VOLUNTARY CLEANUP PROGRAM
3. GROUNDWATER SURFACE ELEVATIONS WERE MEASURED ON 4/6/2016. DATUM: NAD 1983.
4. PRW-7A THROUGH PRW-7D WERE INSTALLED AFTER THE GAUGING EVENT.

THE PORT AUTHORITY OF NY & NJ

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

HHMT

PORT IVORY

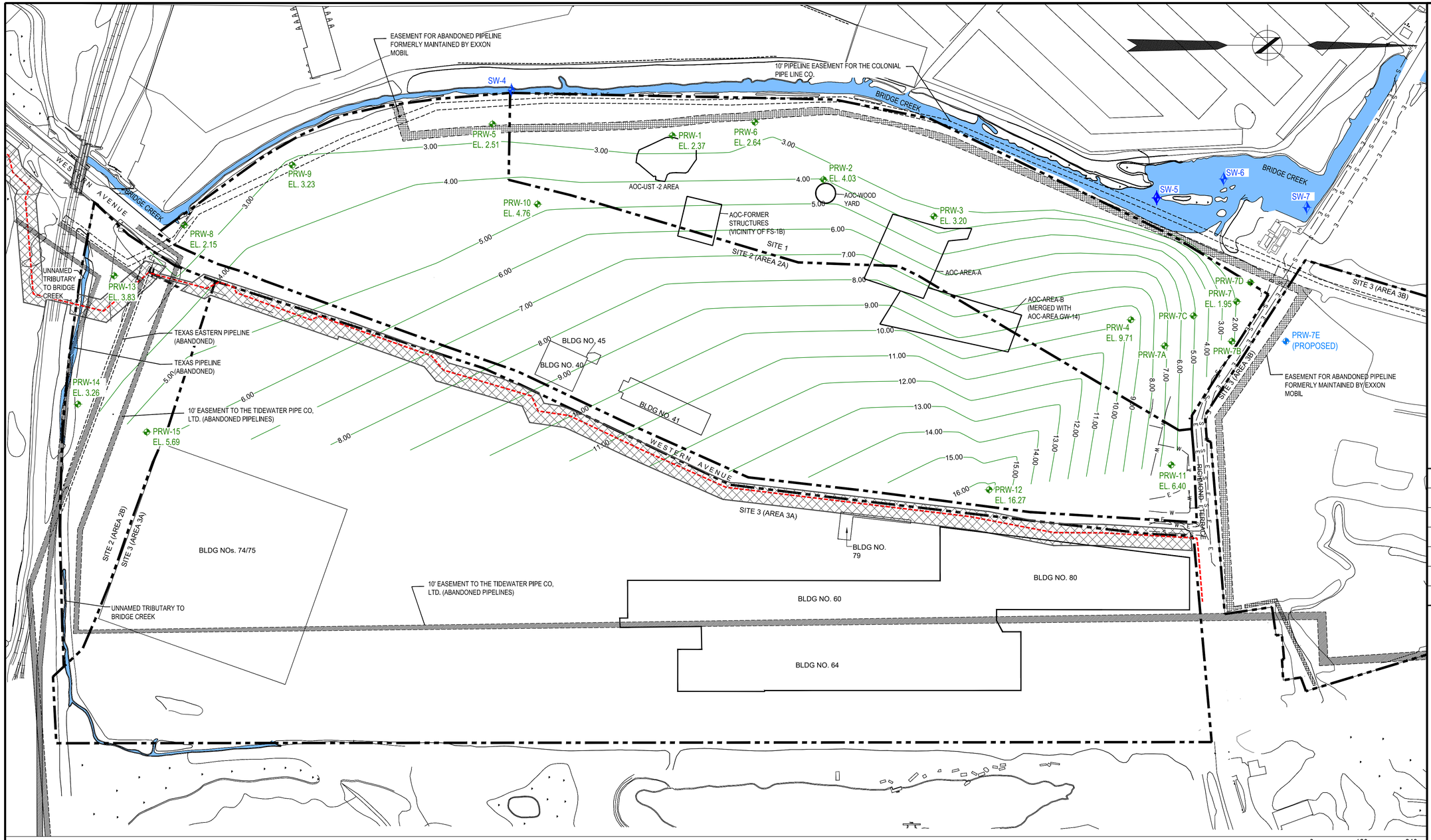
FACILITY - SITE 1

ENVIRONMENTAL

Title

GROUNDWATER SURFACE ELEVATION CONTOUR MAP (HIGH TIDE - APRIL 6, 2016)

Designed by	L.METCALF
Drawn by	H.DELGADO
Checked by	B.FRANCESE
Date	MARCH 2017
Contract Number	
Drawing Number	FIGURE 4
	PID#



LEGEND (SYMBOLS NOT TO SCALE):

- VCP SITE BOUNDARY
- EXISTING BUILDING
- SW-4 — SURFACE WATER SAMPLING LOCATION
- PRW-7 — GROUNDWATER MONITORING WELL LOCATION
- 30" SPECTRA PIPELINE
- APPROXIMATE AREA OF SPECTRA PIPELINE EASEMENT
- E E E — APPROXIMATE LOCATION OF ELECTRIC LINE
- S S S — APPROXIMATE LOCATION OF SANITARY LINE
- T T T — APPROXIMATE LOCATION OF TELECOMMUNICATION LINE
- W W W — APPROXIMATE LOCATION OF WATER LINE
- 12.00 — GROUNDWATER SURFACE ELEVATION CONTOUR (FEET)
- EL. 2.71 — GROUNDWATER SURFACE ELEVATION (FEET)

NOTES:

1. BUILDING NO. 40 HAS BEEN DEMOLISHED. A MODULAR BUILDING MOUNTED ON PIERS HAS BEEN CONSTRUCTED IN THE FOOTPRINT OF FORMER BUILDING 40.
2. VCP - VOLUNTARY CLEANUP PROGRAM
3. GROUNDWATER SURFACE ELEVATIONS WERE MEASURED ON 4/6/16. DATUM: NAD 1983.
4. HIGH TIDE MEASUREMENT USED FOR PRW-12 AND PRW-14 SINCE THE WELLS WERE INACCESSIBLE AT LOW TIDE.
5. PRW-7A THROUGH PRW-7D WERE INSTALLED AFTER THE GAUGING EVENT.

0 120 240
SCALE IN FEET

Sheet 5 of 7

THE PORT AUTHORITY OF NY & NJ

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

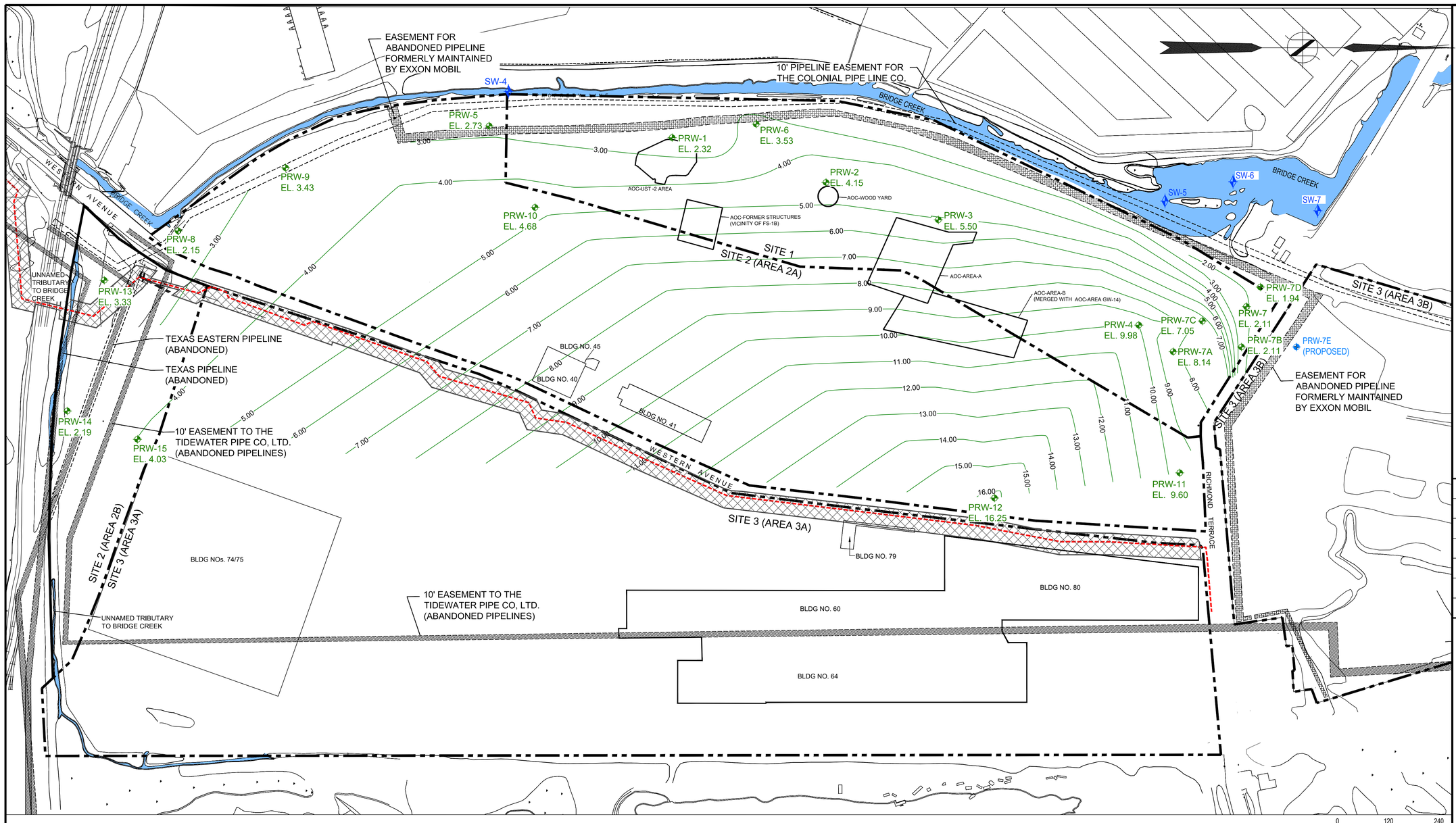
HHMT
PORT IVORY
FACILITY - SITE 1

ENVIRONMENTAL

Title

GROUNDWATER SURFACE ELEVATION CONTOUR MAP (LOW TIDE - APRIL 6, 2016)

Designed by	L.METCALF
Drawn by	H.DELGADO
Checked by	B.FRANCESE
Date	MARCH 2017
Contract Number	
Drawing Number	FIGURE 5
	PID#



LEGEND (SYMBOLS NOT TO SCALE):

- VCP SITE BOUNDARY
- EXISTING BUILDING
- SW-4 — SURFACE WATER SAMPLING LOCATION
- PRW-7 — GROUNDWATER MONITORING WELL LOCATION
- 30" SPECTRA PIPELINE
- APPROXIMATE AREA OF SPECTRA PIPELINE EASEMENT
- 5.00 — INFERRED GROUNDWATER SURFACE ELEVATION CONTOUR (FEET)
- EL. 2.32 — GROUNDWATER SURFACE ELEVATION (FEET)

NOTES:

1. BUILDING NO. 40 HAS BEEN DEMOLISHED. A MODULAR BUILDING MOUNTED ON PIERS HAS BEEN CONSTRUCTED IN THE FOOTPRINT OF FORMER BUILDING 40.
2. VCP - VOLUNTARY CLEANUP PROGRAM
3. GROUNDWATER SURFACE ELEVATIONS WERE MEASURED DURING LOW TIDE ON 07/27/16. DATUM: NAD 1983.

Sheet 6 of 7

THE PORT AUTHORITY OF NY & NJ

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

HHMT
PORT IVORY
FACILITY - SITE 1

ENVIRONMENTAL

Title

GROUNDWATER SURFACE ELEVATION CONTOUR MAP (LOW TIDE - JULY 27, 2016)

Designed by	L.METCALF
Drawn by	H.DELGADO
Checked by	B.FRANCESE
Date	MARCH 2017
Contract Number	
Drawing Number	FIGURE 6

PID#

THE PORT AUTHORITY OF NY & NJ

SW-4				
CONSTITUENT	NEW YORK STATE AWQSGV FOR CLASS SD SALINE SURFACE WATER	9/23/2014	4/2/2015	4/6/2016
METALS	(µg/L)	(µg/L)	(µg/L)	(µg/L)
COPPER (UNFILTERED)	4.8	7.04	<CLASS GA	6.2
PESTICIDES	(µg/L)	(µg/L)	(µg/L)	(µg/L)
HEPTACHLOR	0.0002	0.012 J	ND	ND

FIELD DUPLICATE OF SW-4		
CONSTITUENT	NEW YORK STATE AWQSGV FOR CLASS SD SALINE SURFACE WATER	4/6/2016
METALS	(µg/L)	(µg/L)
COPPER (UNFILTERED)	4.8	5.5

PRW-1				
CONSTITUENT	CLASS GA VALUE	9/23/2014	4/2/2015	4/6/2016
SVOCs	(µg/L)	(µg/L)	(µg/L)	(µg/L)
BENZO(A)ANTHRACENE	0.002	0.1 J	0.16 J	ND
BENZO(A)PYRENE	*	0.08 J	ND	ND
CHRYSENE	0.002	0.16 J	0.22	ND
METALS	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**
ANTIMONY (UNFILTERED)	3	3.53 J	<CLASS GA	<CLASS GA
ARSENIC (UNFILTERED)	25	115.9	36.7	<CLASS GA
ARSENIC (FILTERED)	25	100.7	26.4	<CLASS GA
LEAD (UNFILTERED)	25	58.76	30.5	36.1

SW-5				
CONSTITUENT	NEW YORK STATE AWQSGV FOR CLASS SD SALINE SURFACE WATER	9/23/2014	4/2/2015	4/6/2016
METALS	(µg/L)	(µg/L)	(µg/L)	(µg/L)
COPPER (UNFILTERED)	4.8	7.63	11.70	6.0
COPPER (FILTERED)	4.8	5.83	<CLASS GA	<CLASS GA
PESTICIDES	(µg/L)	(µg/L)	(µg/L)	(µg/L)
4,4'-DDD	0.000011**	0.01 J	ND	ND

PRW-7						
CONSTITUENT	CLASS GA VALUE	9/23/2014	11/25/2014	1/6/2015	4/1/2015	7/27/2016
VOCs	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
BENZENE	1	ND	ND	22 J	ND	ND
TOLUENE	5	120,000	130,000	79,000	87,000	84,000
SVOCs	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**
BIS(2-ETHYLHEXYL)PHTHALATE	5	9.7	NA	ND	ND	NA
PHENOL	1	2.7 J	NA	ND	ND	NA
METALS	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**
MERCURY (UNFILTERED)	0.7	ND	NA	2.74	ND	NA

FIELD DUPLICATE OF PRW-7		
CONSTITUENT	CLASS GA VALUE	1/6/2015
VOCs	(µg/L)	(µg/L)
BENZENE	1	21 J
TOLUENE	5	82,000

PRW-5				
CONSTITUENT	CLASS GA VALUE	9/23/2014	4/1/2015	4/6/2016
METALS	(µg/L)	(µg/L)	(µg/L)	(µg/L)
ARSENIC (UNFILTERED)	25	47.25	35.4	<CLASS GA
ARSENIC (FILTERED)	25	49.37	35.1	<CLASS GA

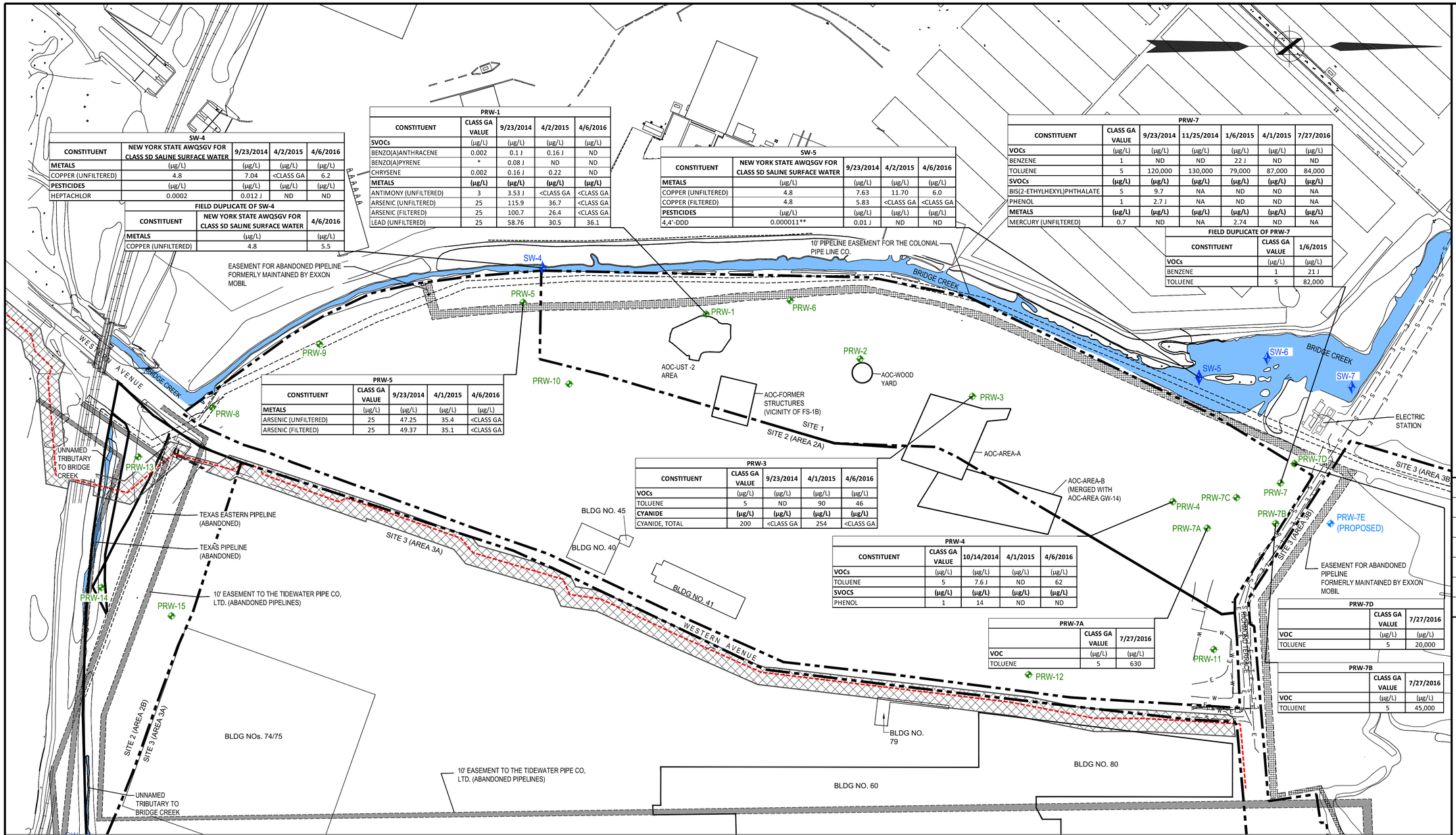
PRW-3				
CONSTITUENT	CLASS GA VALUE	9/23/2014	4/1/2015	4/6/2016
VOCs	(µg/L)	(µg/L)	(µg/L)	(µg/L)
TOLUENE	5	ND	90	46
CYANIDE	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**
CYANIDE, TOTAL	200	<CLASS GA	254	<CLASS GA

PRW-4				
CONSTITUENT	CLASS GA VALUE	10/14/2014	4/1/2015	4/6/2016
VOCs	(µg/L)	(µg/L)	(µg/L)	(µg/L)
TOLUENE	5	7.6 J	ND	62
SVOCS	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**
PHENOL	1	14	ND	ND

PRW-7A		
	CLASS GA VALUE	7/27/2016
VOC	(µg/L)	(µg/L)
TOLUENE	5	630

PRW-7D		
	CLASS GA VALUE	7/27/2016
VOC	(µg/L)	(µg/L)
TOLUENE	5	20,000

PRW-7B		
	CLASS GA VALUE	7/27/2016
VOC	(µg/L)	(µg/L)
TOLUENE	5	45,000



LEGEND (SYMBOLS NOT TO SCALE):

- VCP SITE BOUNDARY
- EXISTING BUILDING
- SW-4 SURFACE WATER SAMPLING LOCATION
- PRW-7 GROUNDWATER MONITORING WELL LOCATION
- 30" SPECTRA PIPELINE
- APPROXIMATE AREA OF SPECTRA PIPELINE EASEMENT
- APPROXIMATE LOCATION OF ELECTRIC LINE
- APPROXIMATE LOCATION OF SANITARY LINE
- APPROXIMATE LOCATION OF TELECOMMUNICATION LINE
- APPROXIMATE LOCATION OF WATER LINE

NOTES:

1. µg/L = MICROGRAM PER LITER
2. VCP = VOLUNTARY CLEANUP PROGRAM
3. CLASS GA VALUES = NYSDEC DIVISION OF WATER TECHNICAL AND OPERATIONAL GUIDANCE SERIES (TOGS) 1.1.1 CLASS GA STANDARDS AND GUIDANCE VALUES
4. NYS AWQSGV = NEW YORK STATE AMBIENT WATER QUALITY AND GUIDANCE VALUE FOR SD SURFACE WATER CLASSIFICATION AS PUBLISHED IN THE DIVISION OF WATER TECHNICAL AND OPERATIONAL GUIDANCE SERIES (TOGS) 1.1.1
5. J = ESTIMATED VALUE
6. NA = NOT ANALYZED
7. ND = COMPOUND NOT DETECTED
8. ONLY RESULTS ABOVE CLASS GA VALUES AND SD SURFACE WATER AWQSGVs ARE SHOWN. HOWEVER, TOULENE RESULTS FOR WELLS PRW-7A THROUGH PRW-7D FROM THE JULY 2016 SAMPLING EVENT ARE SHOWN FOR REFERENCE.
9. *BENZO(A)PYRENE EXCEEDANCE IS ANY CONCENTRATION ABOVE THE DETECTION LIMIT.
10. **APPLIES TO THE SUM OF 4,4'-DDD, 4,4'-DDT AND 4-4'-DDE.
11. PRW-5 IS CONSIDERED A SITE 1 MONITORING WELL.

0 120 240
SCALE IN FEET

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

HHMT
PORT IVORY
FACILITY - SITE 1

ENVIRONMENTAL

Title

SUMMARY OF 2014, 2015, AND 2016 GROUNDWATER AND SURFACE WATER SAMPLING RESULTS

Designed by	L.METCALF
Drawn by	H.DELGADO
Checked by	B.FRANCESE
Date	MARCH 2017
Contract Number	
Drawing Number	FIGURE 7
	PID#

TABLES

Table 1
The Port Authority of New York and New Jersey
Howland Hook Marine Terminal - Port Ivory Facility - Site 1
Staten Island, New York
Summary of 2016 Results of Analysis of Groundwater for Volatile Organic Compounds

SAMPLE ID		PRW-01			PRW-02			PRW-03		
SAMPLING DATE		4/6/2016			4/6/2016			4/6/2016		
LAB SAMPLE ID		L1610064-03			L1610064-01			L1610064-12		
SAMPLE MATRIX		WATER			WATER			WATER		
VOLATILE ORGANIC COMPOUNDS (VOCs)	Class GA Value (µg/L)	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL
Methylene chloride	5	ND	6.2	1.8	ND	2.5	0.7	ND	2.5	0.7
1,1-Dichloroethane	5	ND	6.2	1.8	ND	2.5	0.7	ND	2.5	0.7
Chloroform	7	ND	6.2	1.8	ND	2.5	0.7	ND	2.5	0.7
2-Chloroethylvinyl ether	NC	ND	25	1.8	ND	10	0.7	ND	10	0.7
Carbon tetrachloride	5	ND	1.2	0.34	ND	0.5	0.13	ND	0.5	0.13
1,2-Dichloropropane	1	ND	2.5	0.33	ND	1	0.13	ND	1	0.13
Dibromochloromethane	50	ND	1.2	0.37	ND	0.5	0.15	ND	0.5	0.15
1,1,2-Trichloroethane	1	ND	3.8	1.2	ND	1.5	0.5	ND	1.5	0.5
Tetrachloroethene	5	ND	1.2	0.45	ND	0.5	0.18	ND	0.5	0.18
Chlorobenzene	5	ND	6.2	1.8	ND	2.5	0.7	ND	2.5	0.7
1,2-Dichloroethane	0.6	ND	1.2	0.33	ND	0.5	0.13	ND	0.5	0.13
1,1,1-Trichloroethane	5	ND	6.2	1.8	ND	2.5	0.7	ND	2.5	0.7
Bromodichloromethane	50	ND	1.2	0.48	ND	0.5	0.19	ND	0.5	0.19
trans-1,3-Dichloropropene	NC	ND	1.2	0.41	ND	0.5	0.16	ND	0.5	0.16
cis-1,3-Dichloropropene	NC	ND	1.2	0.36	ND	0.5	0.14	ND	0.5	0.14
1,3-Dichloropropene, Total	0.4	ND	1.2	0.36	ND	0.5	0.14	ND	0.5	0.14
Bromoform	50	ND	5	1.6	ND	2	0.65	ND	2	0.65
1,1,2,2-Tetrachloroethane	5	ND	1.2	0.36	ND	0.5	0.14	ND	0.5	0.14
Benzene	1	ND	1.2	0.4	ND	0.5	0.16	ND	0.5	0.16
Toluene	5	ND	6.2	1.8	ND	2.5	0.7	**46**	2.5	0.7
Ethylbenzene	5	ND	6.2	1.8	ND	2.5	0.7	ND	2.5	0.7
Chloromethane	5	ND	6.2	1.8	ND	2.5	0.7	ND	2.5	0.7
Bromomethane	5	ND	6.2	1.8	ND	2.5	0.7	ND	2.5	0.7
Vinyl chloride	2	ND	2.5	0.17	ND	1	0.07	ND	1	0.07
Chloroethane	5	ND	6.2	1.8	ND	2.5	0.7	ND	2.5	0.7
1,1-Dichloroethene	5	ND	1.2	0.36	ND	0.5	0.14	ND	0.5	0.14
trans-1,2-Dichloroethene	5	ND	6.2	1.8	ND	2.5	0.7	ND	2.5	0.7
Trichloroethene	5	ND	1.2	0.44	ND	0.5	0.18	ND	0.5	0.18
1,2-Dichlorobenzene	3	ND	6.2	1.8	ND	2.5	0.7	ND	2.5	0.7
1,3-Dichlorobenzene	3	ND	6.2	1.8	ND	2.5	0.7	ND	2.5	0.7
1,4-Dichlorobenzene	3	ND	6.2	1.8	ND	2.5	0.7	ND	2.5	0.7
Acrylonitrile	5	ND	12	1.6	ND	5	0.63	ND	5	0.63
Acrolein	5	ND	12	3.8	ND	5	1.5	ND	5	1.5

Notes:

Bold and highlighted indicates the value exceeds the corresponding Class GA value.

MDL - Method detection limit

NC - No criterion

ND - Compound not detected

RL - Reporting limit

µg/L - Micrograms per liter

Table 1
The Port Authority of New York and New Jersey
Howland Hook Marine Terminal - Port Ivory Facility - Site 1
Staten Island, New York
Summary of 2016 Results of Analysis of Groundwater for Volatile Organic Compounds

SAMPLE ID		PRW-04			PRW-05			PRW-06		
SAMPLING DATE		4/6/2016			4/7/2016			4/6/2016		
LAB SAMPLE ID		L1610064-11			L1610205-07			L1610064-02		
SAMPLE MATRIX		WATER			WATER			WATER		
VOLATILE ORGANIC COMPOUNDS (VOCs)	Class GA Value (µg/L)	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL
Methylene chloride	5	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
1,1-Dichloroethane	5	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
Chloroform	7	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
2-Chloroethylvinyl ether	NC	ND	10	0.7	ND	10	0.7	ND	10	0.7
Carbon tetrachloride	5	ND	0.5	0.13	ND	0.5	0.13	ND	0.5	0.13
1,2-Dichloropropane	1	ND	1	0.13	ND	1	0.13	ND	1	0.13
Dibromochloromethane	50	ND	0.5	0.15	ND	0.5	0.15	ND	0.5	0.15
1,1,2-Trichloroethane	1	ND	1.5	0.5	ND	1.5	0.5	ND	1.5	0.5
Tetrachloroethene	5	ND	0.5	0.18	ND	0.5	0.18	ND	0.5	0.18
Chlorobenzene	5	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
1,2-Dichloroethane	0.6	ND	0.5	0.13	ND	0.5	0.13	ND	0.5	0.13
1,1,1-Trichloroethane	5	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
Bromodichloromethane	50	ND	0.5	0.19	ND	0.5	0.19	ND	0.5	0.19
trans-1,3-Dichloropropene	NC	ND	0.5	0.16	ND	0.5	0.16	ND	0.5	0.16
cis-1,3-Dichloropropene	NC	ND	0.5	0.14	ND	0.5	0.14	ND	0.5	0.14
1,3-Dichloropropene, Total	0.4	ND	0.5	0.14	ND	0.5	0.14	ND	0.5	0.14
Bromoform	50	ND	2	0.65	ND	2	0.65	ND	2	0.65
1,1,2,2-Tetrachloroethane	5	ND	0.5	0.14	ND	0.5	0.14	ND	0.5	0.14
Benzene	1	ND	0.5	0.16	ND	0.5	0.16	ND	0.5	0.16
Toluene	5	**62**	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
Ethylbenzene	5	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
Chloromethane	5	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
Bromomethane	5	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
Vinyl chloride	2	ND	1	0.07	ND	1	0.07	ND	1	0.07
Chloroethane	5	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
1,1-Dichloroethene	5	ND	0.5	0.14	ND	0.5	0.14	ND	0.5	0.14
trans-1,2-Dichloroethene	5	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
Trichloroethene	5	ND	0.5	0.18	ND	0.5	0.18	ND	0.5	0.18
1,2-Dichlorobenzene	3	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
1,3-Dichlorobenzene	3	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
1,4-Dichlorobenzene	3	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
Acrylonitrile	5	ND	5	0.63	ND	5	1.5	ND	5	1.5
Acrolein	5	ND	5	1.5	ND	5	0.63	ND	5	0.63

Notes:

Bold and highlighted indicates the value exceeds the corresponding Class GA value.

MDL - Method detection limit

NC - No criterion

ND - Compound not detected

RL - Reporting limit

µg/L - Micrograms per liter

Table 1
The Port Authority of New York and New Jersey
Howland Hook Marine Terminal - Port Ivory Facility - Site 1
Staten Island, New York
Summary of 2016 Results of Analysis of Groundwater for Volatile Organic Compounds

SAMPLE ID		PRW-07			FIELD BLANK			TRIP BLANK			TRIP BLANK		
SAMPLING DATE		4/6/2016			4/6/2016			4/6/2016			4/7/2016		
LAB SAMPLE ID		L1610064-10			L1610064-04			L1610064-05			L1610205-10		
SAMPLE MATRIX		WATER			WATER			WATER			WATER		
VOLATILE ORGANIC COMPOUNDS (VOCs)	Class GA Value (µg/L)	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL
Methylene chloride	5	ND	2,500	700	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
1,1-Dichloroethane	5	ND	2,500	700	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
Chloroform	7	ND	2,500	700	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
2-Chloroethylvinyl ether	NC	ND	10,000	700	ND	10	0.7	ND	10	0.7	ND	10	0.7
Carbon tetrachloride	5	ND	500	130	ND	0.5	0.13	ND	0.5	0.13	ND	0.5	0.13
1,2-Dichloropropane	1	ND	1,000	130	ND	1	0.13	ND	1	0.13	ND	1	0.13
Dibromochloromethane	50	ND	500	150	ND	0.5	0.15	ND	0.5	0.15	ND	0.5	0.15
1,1,2-Trichloroethane	1	ND	1,500	500	ND	1.5	0.5	ND	1.5	0.5	ND	1.5	0.5
Tetrachloroethene	5	ND	500	180	ND	0.5	0.18	ND	0.5	0.18	ND	0.5	0.18
Chlorobenzene	5	ND	2,500	700	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
1,2-Dichloroethane	0.6	ND	500	130	ND	0.5	0.13	ND	0.5	0.13	ND	0.5	0.13
1,1,1-Trichloroethane	5	ND	2,500	700	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
Bromodichloromethane	50	ND	500	190	ND	0.5	0.19	ND	0.5	0.19	ND	0.5	0.19
trans-1,3-Dichloropropene	NC	ND	500	160	ND	0.5	0.16	ND	0.5	0.16	ND	0.5	0.16
cis-1,3-Dichloropropene	NC	ND	500	140	ND	0.5	0.14	ND	0.5	0.14	ND	0.5	0.14
1,3-Dichloropropene, Total	0.4	ND	500	140	ND	0.5	0.14	ND	0.5	0.14	ND	0.5	0.14
Bromoform	50	ND	2,000	650	ND	2	0.65	ND	2	0.65	ND	2	0.65
1,1,2,2-Tetrachloroethane	5	ND	500	140	ND	0.5	0.14	ND	0.5	0.14	ND	0.5	0.14
Benzene	1	ND	500	160	ND	0.5	0.16	ND	0.5	0.16	ND	0.5	0.16
Toluene	5	**84,000**	2,500	700	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
Ethylbenzene	5	ND	2,500	700	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
Chloromethane	5	ND	2,500	700	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
Bromomethane	5	ND	2,500	700	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
Vinyl chloride	2	ND	1,000	70	ND	1	0.07	ND	1	0.07	ND	1	0.07
Chloroethane	5	ND	2,500	700	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
1,1-Dichloroethene	5	ND	500	140	ND	0.5	0.14	ND	0.5	0.14	ND	0.5	0.14
trans-1,2-Dichloroethene	5	ND	2,500	700	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
Trichloroethene	5	ND	500	180	ND	0.5	0.18	ND	0.5	0.18	ND	0.5	0.18
1,2-Dichlorobenzene	3	ND	2,500	700	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
1,3-Dichlorobenzene	3	ND	2,500	700	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
1,4-Dichlorobenzene	3	ND	2,500	700	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
Acrylonitrile	5	ND	5,000	630	ND	5	0.63	ND	5	0.63	ND	5	1.5
Acrolein	5	ND	5,000	1500	ND	5	1.5	ND	5	1.5	ND	5	0.63

Notes:

Bold and highlighted indicates the value exceeds the corresponding Class GA value.

MDL - Method detection limit

NC - No criterion

ND - Compound not detected

RL - Reporting limit

µg/L - Micrograms per liter

Table 2
The Port Authority of New York and New Jersey
Howland Hook Marine Terminal - Port Ivory Facility - Site 1
Staten Island, New York
Summary of 2016 Results of Analysis of Groundwater for Semi-Volatile Organic Compounds

SAMPLE ID		PRW-01			PRW-02			PRW-03			PRW-04		
SAMPLING DATE		4/6/2016			4/6/2016			4/6/2016			4/6/2016		
LAB SAMPLE ID		L1610064-03			L1610064-01			L1610064-12			L1610064-11		
SAMPLE MATRIX		WATER			WATER			WATER			WATER		
SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs)	Class GA Value (µg/L)	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL
1,2,4-Trichlorobenzene	5	ND	5	0.66	ND	5	0.66	ND	5	0.66	ND	5	0.66
Benzidine	5	ND	20	8.1	ND	20	8.1	ND	20	8.1	ND	20	8.1
n-Nitrosodimethylamine	1	ND	2	0.67	ND	2	0.67	ND	2	0.67	ND	2	0.67
Bis(2-chloroethyl)ether	5	ND	2	0.67	ND	2	0.67	ND	2	0.67	ND	2	0.67
3,3'-Dichlorobenzidine	5	ND	5	1.4	ND	5	1.4	ND	5	1.4	ND	5	1.4
2,4-Dinitrotoluene	5	ND	5	0.84	ND	5	0.84	ND	5	0.84	ND	5	0.84
2,6-Dinitrotoluene	5	ND	5	1.1	ND	5	1.1	ND	5	1.1	ND	5	1.1
(Hydr)Azobenzene	NC	ND	2	0.75	ND	2	0.75	ND	2	0.75	ND	2	0.75
4-Chlorophenyl phenyl ether	NC	ND	2	0.62	ND	2	0.62	ND	2	0.62	ND	2	0.62
4-Bromophenyl phenyl ether	5	ND	2	0.73	ND	2	0.73	ND	2	0.73	ND	2	0.73
Bis(2-chloroisopropyl)ether	5	ND	2	0.7	ND	2	0.7	ND	2	0.7	ND	2	0.7
Bis(2-chloroethoxy)methane	5	ND	5	0.63	ND	5	0.63	ND	5	0.63	ND	5	0.63
Hexachlorocyclopentadiene	50	ND	20	7.8	ND	20	7.8	ND	20	7.8	ND	20	7.8
Isophorone	0.4	ND	5	0.6	ND	5	0.6	ND	5	0.6	ND	5	0.6
Nitrobenzene	50	ND	2	0.75	ND	2	0.75	ND	2	0.75	ND	2	0.75
NDPA/DPA	NC	ND	2	0.64	ND	2	0.64	ND	2	0.64	ND	2	0.64
n-Nitrosodi-n-propylamine	5	ND	5	0.7	ND	5	0.7	ND	5	0.7	ND	5	0.7
Bis(2-ethylhexyl)phthalate	50	ND	3	0.91	ND	3	0.91	ND	3	0.91	ND	3	0.91
Butyl benzyl phthalate	50	ND	5	1.3	ND	5	1.3	ND	5	1.3	ND	5	1.3
Di-n-butylphthalate	50	ND	5	0.69	ND	5	0.69	ND	5	0.69	ND	5	0.69
Di-n-octylphthalate	50	ND	5	1.1	ND	5	1.1	ND	5	1.1	ND	5	1.1
Diethyl phthalate	50	ND	5	0.63	ND	5	0.63	ND	5	0.63	ND	5	0.63
Dimethyl phthalate	NC	ND	5	0.65	ND	5	0.65	ND	5	0.65	ND	5	0.65
2,4,6-Trichlorophenol	NC	ND	5	0.68	ND	5	0.68	ND	5	0.68	ND	5	0.68
p-Chloro-m-cresol	NC	ND	2	0.62	ND	2	0.62	ND	2	0.62	ND	2	0.62
2-Chlorophenol	NC	ND	2	0.63	ND	2	0.63	ND	2	0.63	ND	2	0.63
2,4-Dichlorophenol	5	ND	5	0.77	ND	5	0.77	ND	5	0.77	ND	5	0.77
2,4-Dimethylphenol	50	ND	5	1.6	ND	5	1.6	ND	5	1.6	ND	5	1.6
2-Nitrophenol	NC	ND	10	1.5	ND	10	1.5	ND	10	1.5	ND	10	1.5
4-Nitrophenol	NC	ND	10	1.8	ND	10	1.8	ND	10	1.8	ND	10	1.8
2,4-Dinitrophenol	10	ND	20	5.5	ND	20	5.5	ND	20	5.5	ND	20	5.5
4,6-Dinitro-o-cresol	NC	ND	10	2.1	ND	10	2.1	ND	10	2.1	ND	10	2.1
Phenol	1	ND	5	1.9	ND	5	1.9	ND	5	1.9	ND	5	1.9
Acenaphthene	20	0.78	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04
2-Chloronaphthalene	10	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04
Fluoranthene	50	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04
Hexachlorobutadiene	0.5	ND	0.5	0.04	ND	0.5	0.04	ND	0.5	0.04	ND	0.5	0.04
Naphthalene	10	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04
Benzo(a)anthracene	0.002	ND	0.2	0.02	ND	0.2	0.02	ND	0.2	0.02	ND	0.2	0.02
Benzo(a)pyrene	NC*	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04
Benzo(b)fluoranthene	0.002	ND	0.2	0.02	ND	0.2	0.02	ND	0.2	0.02	ND	0.2	0.02
Benzo(k)fluoranthene	0.002	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04
Chrysene	0.002	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04
Acenaphthylene	NC	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04
Anthracene	50	0.27	0.2	0.04	ND	0.2	0.04	0.23	0.2	0.04	ND	0.2	0.04
Benzo(ghi)perylene	NC	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04
Fluorene	50	0.34	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04
Phenanthrene	50	ND	0.2	0.02	ND	0.2	0.02	ND	0.2	0.02	ND	0.2	0.02
Dibenzo(a,h)anthracene	NC	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04
Indeno(1,2,3-cd)Pyrene	0.002	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04
Pyrene	50	0.43	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04
Pentachlorophenol	1	ND	0.8	0.22	ND	0.8	0.22	ND	0.8	0.22	ND	0.8	0.22
Hexachlorobenzene	0.04	ND	0.8	0.03	ND	0.8	0.03	ND	0.8	0.03	ND	0.8	0.03
Hexachloroethane	5	ND	0.8	0.03	ND	0.8	0.03	ND	0.8	0.03	ND	0.8	0.03

Notes:
Bold and highlighted indicates the value exceeds the corresponding Class GA value.
J - Estimated value
MDL - Method detection limit
NC - No criterion
ND - Compound not detected
RL - Reporting limit
µg/L - Micrograms per liter
* Benzo(a)pyrene exceedance is any concentration above the detection limit

Table 2
The Port Authority of New York and New Jersey
Howland Hook Marine Terminal - Port Ivory Facility - Site 1
Staten Island, New York
Summary of 2016 Results of Analysis of Groundwater for Semi-Volatile Organic Compounds

SAMPLE ID		PRW-05			PRW-06			PRW-07			FIELD BLANK		
SAMPLING DATE		4/7/2016			4/6/2016			4/6/2016			4/6/2016		
LAB SAMPLE ID		L1610205-07			L1610064-02			L1610064-10			L1610064-04		
SAMPLE MATRIX		WATER			WATER			WATER			WATER		
SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs)	Class GA Value (µg/L)	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL
1,2,4-Trichlorobenzene	5	ND	5	0.66	ND	5	0.66	ND	10	1.3	ND	5	0.66
Benzidine	5	ND	20	8.1	ND	20	8.1	ND	40	16	ND	20	8.1
n-Nitrosodimethylamine	1	ND	2	0.67	ND	2	0.67	ND	4	1.3	ND	2	0.67
Bis(2-chloroethyl)ether	5	ND	2	0.67	ND	2	0.67	ND	4	1.3	ND	2	0.67
3,3'-Dichlorobenzidine	5	ND	5	1.4	ND	5	1.4	ND	10	2.8	ND	5	1.4
2,4-Dinitrotoluene	5	ND	5	0.84	ND	5	0.84	ND	10	1.7	ND	5	0.84
2,6-Dinitrotoluene	5	ND	5	1.1	ND	5	1.1	ND	10	2.2	ND	5	1.1
(Hydr)Azobenzene	NC	ND	2	0.75	ND	2	0.75	ND	4	1.5	ND	2	0.75
4-Chlorophenyl phenyl ether	NC	ND	2	0.62	ND	2	0.62	ND	4	1.2	ND	2	0.62
4-Bromophenyl phenyl ether	5	ND	2	0.73	ND	2	0.73	ND	4	1.5	ND	2	0.73
Bis(2-chloroisopropyl)ether	5	ND	2	0.7	ND	2	0.7	ND	4	1.4	ND	2	0.7
Bis(2-chloroethoxy)methane	5	ND	5	0.63	ND	5	0.63	ND	10	1.2	ND	5	0.63
Hexachlorocyclopentadiene	50	ND	20	7.8	ND	20	7.8	ND	40	16	ND	20	7.8
Isophorone	0.4	ND	5	0.6	ND	5	0.6	ND	10	1.2	ND	5	0.6
Nitrobenzene	50	ND	2	0.75	ND	2	0.75	ND	4	1.5	ND	2	0.75
NDPA/DPA	NC	ND	2	0.64	ND	2	0.64	ND	4	1.3	ND	2	0.64
n-Nitrosodi-n-propylamine	5	ND	5	0.7	ND	5	0.7	ND	10	1.4	ND	5	0.7
Bis(2-ethylhexyl)phthalate	50	ND	3	0.91	ND	3	0.91	ND	6	1.8	ND	3	0.91
Butyl benzyl phthalate	50	ND	5	1.3	ND	5	1.3	ND	10	2.5	ND	5	1.3
Di-n-butylphthalate	50	ND	5	0.69	ND	5	0.69	ND	10	1.4	ND	5	0.69
Di-n-octylphthalate	50	ND	5	1.1	ND	5	1.1	ND	10	2.3	ND	5	1.1
Diethyl phthalate	50	ND	5	0.63	ND	5	0.63	2.9 J	10	1.2	ND	5	0.63
Dimethyl phthalate	NC	ND	5	0.65	ND	5	0.65	ND	10	1.3	ND	5	0.65
2,4,6-Trichlorophenol	NC	ND	5	0.68	ND	5	0.68	ND	10	1.4	ND	5	0.68
p-Chloro-m-cresol	NC	ND	2	0.62	ND	2	0.62	ND	4	1.2	ND	2	0.62
2-Chlorophenol	NC	ND	2	0.63	ND	2	0.63	ND	4	1.3	ND	2	0.63
2,4-Dichlorophenol	5	ND	5	0.77	ND	5	0.77	ND	10	1.5	ND	5	0.77
2,4-Dimethylphenol	50	ND	5	1.6	ND	5	1.6	ND	10	3.3	ND	5	1.6
2-Nitrophenol	NC	ND	10	1.5	ND	10	1.5	ND	20	3	ND	10	1.5
4-Nitrophenol	NC	ND	10	1.8	ND	10	1.8	ND	20	3.5	ND	10	1.8
2,4-Dinitrophenol	10	ND	20	5.5	ND	20	5.5	ND	40	11	ND	20	5.5
4,6-Dinitro-o-cresol	NC	ND	10	2.1	ND	10	2.1	ND	20	4.2	ND	10	2.1
Phenol	1	ND	5	1.9	ND	5	1.9	ND	10	3.8	ND	5	1.9
Acenaphthene	20	ND	0.2	0.04	ND	0.2	0.04	ND	0.4	0.07	ND	0.2	0.04
2-Chloronaphthalene	10	ND	0.2	0.04	ND	0.2	0.04	ND	0.4	0.07	ND	0.2	0.04
Fluoranthene	50	ND	0.2	0.04	ND	0.2	0.04	ND	0.4	0.08	ND	0.2	0.04
Hexachlorobutadiene	0.5	ND	0.5	0.04	ND	0.5	0.04	ND	1	0.07	ND	0.5	0.04
Naphthalene	10	ND	0.2	0.04	ND	0.2	0.04	0.58	0.4	0.09	ND	0.2	0.04
Benzo(a)anthracene	0.002	ND	0.2	0.02	ND	0.2	0.02	ND	0.4	0.03	ND	0.2	0.02
Benzo(a)pyrene	NC*	ND	0.2	0.04	ND	0.2	0.04	ND	0.4	0.08	ND	0.2	0.04
Benzo(b)fluoranthene	0.002	ND	0.2	0.02	ND	0.2	0.02	ND	0.4	0.03	ND	0.2	0.02
Benzo(k)fluoranthene	0.002	ND	0.2	0.04	ND	0.2	0.04	ND	0.4	0.08	ND	0.2	0.04
Chrysene	0.002	ND	0.2	0.04	ND	0.2	0.04	ND	0.4	0.08	ND	0.2	0.04
Acenaphthylene	NC	ND	0.2	0.04	ND	0.2	0.04	ND	0.4	0.07	ND	0.2	0.04
Anthracene	50	ND	0.2	0.04	ND	0.2	0.04	ND	0.4	0.07	ND	0.2	0.04
Benzo(ghi)perylene	NC	ND	0.2	0.04	ND	0.2	0.04	ND	0.4	0.08	ND	0.2	0.04
Fluorene	50	ND	0.2	0.04	ND	0.2	0.04	ND	0.4	0.07	ND	0.2	0.04
Phenanthrene	50	ND	0.2	0.02	ND	0.2	0.02	ND	0.4	0.03	ND	0.2	0.02
Dibenzo(a,h)anthracene	NC	ND	0.2	0.04	ND	0.2	0.04	ND	0.4	0.08	ND	0.2	0.04
Indeno(1,2,3-cd)Pyrene	0.002	ND	0.2	0.04	ND	0.2	0.04	ND	0.4	0.08	ND	0.2	0.04
Pyrene	50	ND	0.2	0.04	ND	0.2	0.04	ND	0.4	0.08	ND	0.2	0.04
Pentachlorophenol	1	ND	0.8	0.22	ND	0.8	0.22	ND	1.6	0.44	ND	0.8	0.22
Hexachlorobenzene	0.04	ND	0.8	0.03	ND	0.8	0.03	ND	1.6	0.06	ND	0.8	0.03
Hexachloroethane	5	ND	0.8	0.03	ND	0.8	0.03	ND	1.6	0.06	ND	0.8	0.03

Notes:
Bold and highlighted indicates the value exceeds the
J - Estimated value
MDL - Method detection limit
NC - No criterion
ND - Compound not detected
RL - Reporting limit
µg/L - Micrograms per liter
* Benzo(a)pyrene exceedance is any concentration a

Table 3
The Port Authority of New York and New Jersey
Howland Hook Marine Terminal - Port Ivory Facility - Site 1
Staten Island, New York
Summary of 2016 Results of Analysis of Groundwater for Metals and Cyanide

SAMPLE ID		PRW-01						PRW-02					
SAMPLING DATE		4/6/2016						4/6/2016					
LAB SAMPLE ID		L1610064-03						L1610064-01					
SAMPLE MATRIX		WATER						WATER					
SAMPLE PREPARATION		FILTERED			UNFILTERED			FILTERED			UNFILTERED		
METALS	Class GA Value (µg/L)	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL
Antimony	3	1.2 J	4	0.1	0.4 J	4	0.1	0.2 J	4	0.1	0.2 J	4	0.1
Arsenic	25	19	1	0.2	19.9	1	0.2	0.7 J	1	0.2	0.4 J	1	0.2
Barium	1,000	74.3	1	0.1	79.9	1	0.1	187.2	1	0.1	186	1	0.1
Beryllium	3	ND	1	0.3	ND	1	0.3	ND	1	0.3	ND	1	0.3
Cadmium	5	0.4	0.4	0.1	ND	0.4	0.1	ND	0.4	0.1	ND	0.4	0.1
Chromium	50	0.7 J	2	0.5	1.7 J	2	0.5	0.9 J	2	0.5	1.1 J	2	0.5
Copper	200	53.6	2	0.5	11.8	2	0.5	ND	2	0.5	0.9 J	2	0.5
Lead	25	**36.1**	**2**	**0.3**	4.4	2	0.3	ND	2	0.3	0.5 J	2	0.3
Mercury	0.7	ND	0.2	0.06	ND	0.2	0.06	ND	0.2	0.06	ND	0.2	0.06
Nickel	100	5.2 J	6	0.2	8.2	6	0.2	4.7 J	6	0.2	3.4 J	6	0.2
Selenium	10	ND	10	2	5 J	10	2	3 J	10	2	ND	10	2
Silver	50	6.8	0.8	0.2	ND	0.8	0.2	0.5 J	0.8	0.2	0.2 J	0.8	0.2
Thallium	0.5	ND	1	0.1	ND	1	0.1	ND	1	0.1	ND	1	0.1
Zinc	2,000	32.8	20	5.1	165.8	20	5.1	ND	20	5.1	ND	20	5.1
CYANIDE	Class GA Value (µg/L)	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL
Cyanide, Total	200	NA	NA	NA	9	5	1	NA	NA	NA	61	5	1

Notes:

Bold and highlighted indicates the value exceeds the corresponding Class GA value.

J - Estimated value

MDL - Method detection limit

NA - Not analyzed

NC - No criterion

ND - Compound not detected

RL - Reporting limit

µg/L - Micrograms per liter

Table 3
The Port Authority of New York and New Jersey
Howland Hook Marine Terminal - Port Ivory Facility - Site 1
Staten Island, New York
Summary of 2016 Results of Analysis of Groundwater for Metals and Cyanide

SAMPLE ID		PRW-03						PRW-04					
SAMPLING DATE		4/6/2016						4/6/2016					
LAB SAMPLE ID		L1610064-12						L1610064-11					
SAMPLE MATRIX		WATER						WATER					
SAMPLE PREPARATION		FILTERED			UNFILTERED			FILTERED			UNFILTERED		
METALS	Class GA Value (µg/L)	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL
Antimony	3	0.8 J	4	0.1	0.5 J	4	0.1	1.4 J	4	0.1	1.3 J	4	0.1
Arsenic	25	5.2	1	0.2	10.2	1	0.2	1.5	1	0.2	2.2	1	0.2
Barium	1,000	28.3	1	0.1	29	1	0.1	25.3	1	0.1	55	1	0.1
Beryllium	3	ND	1	0.3	ND	1	0.3	ND	1	0.3	ND	1	0.3
Cadmium	5	ND	0.4	0.1	ND	0.4	0.1	ND	0.4	0.1	0.1 J	0.4	0.1
Chromium	50	0.8 J	2	0.5	4.1	2	0.5	7.2	2	0.5	18.5	2	0.5
Copper	200	0.5	2	0.5	2.2	2	0.5	2.9	2	0.5	24.9	2	0.5
Lead	25	ND	2	0.3	0.8 J	2	0.3	0.5 J	2	0.3	18.1	2	0.3
Mercury	0.7	ND	0.2	0.06	ND	0.2	0.06	ND	0.2	0.06	ND	0.2	0.06
Nickel	100	4 J	6	0.2	4.4 J	6	0.2	2.1 J	6	0.2	10.5	6	0.2
Selenium	10	ND	10	2	ND	10	2	ND	10	2	2 J	10	2
Silver	50	0.2 J	0.8	0.2	ND	0.8	0.2	ND	0.8	0.2	ND	0.8	0.2
Thallium	0.5	ND	1	0.1	ND	1	0.1	ND	1	0.1	ND	1	0.1
Zinc	2,000	ND	20	5.1	ND	20	5.1	ND	20	5.1	68	20	5.1
CYANIDE	Class GA Value (µg/L)	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL
Cyanide, Total	200	NA	NA	NA	76	5	1	NA	NA	NA	2 J	5	1

Notes:

Bold and highlighted indicates the value exceeds the corresponding Class GA value.

J - Estimated value

MDL - Method detection limit

NA - Not analyzed

NC - No criterion

ND - Compound not detected

RL - Reporting limit

µg/L - Micrograms per liter

Table 3
The Port Authority of New York and New Jersey
Howland Hook Marine Terminal - Port Ivory Facility - Site 1
Staten Island, New York
Summary of 2016 Results of Analysis of Groundwater for Metals and Cyanide

SAMPLE ID		PRW-05						PRW-06					
SAMPLING DATE		4/7/2016						4/6/2016					
LAB SAMPLE ID		L1610205-07						L1610064-02					
SAMPLE MATRIX		WATER						WATER					
SAMPLE PREPARATION		FILTERED			UNFILTERED			FILTERED			UNFILTERED		
METALS	Class GA Value (µg/L)	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL
Antimony	3	ND	4	0.1	ND	4	0.1	0.3 J	4	0.1	ND	4	0.1
Arsenic	25	12.2	1	0.2	9.2	1	0.2	0.7 J	1	0.2	1.1	1	0.2
Barium	1,000	268.3	1	0.1	239.5	1	0.1	27.6	1	0.1	24.7	1	0.1
Beryllium	3	ND	1	0.3	ND	1	0.3	ND	1	0.3	ND	1	0.3
Cadmium	5	ND	0.4	0.1	ND	0.4	0.1	ND	0.4	0.1	ND	0.4	0.1
Chromium	50	1 J	2	0.5	1.1 J	2	0.5	0.6 J	2	0.5	0.7 J	2	0.5
Copper	200	0.8J	2	0.5	2.2	2	0.5	ND	2	0.5	1.4 J	2	0.5
Lead	25	ND	2	0.3	0.8 J	2	0.3	ND	2	0.3	0.6 J	2	0.3
Mercury	0.7	ND	0.2	0.06	ND	0.2	0.06	ND	0.2	0.06	ND	0.2	0.06
Nickel	100	1.6 J	6	0.2	2.5 J	6	0.2	1.7 J	6	0.2	ND	6	0.2
Selenium	10	ND	10	2	ND	10	2	ND	10	2	ND	10	2
Silver	50	0.2 J	0.8	0.2	ND	0.8	0.2	0.4 J	0.8	0.2	ND	0.8	0.2
Thallium	0.5	ND	1	0.1	ND	1	0.1	ND	1	0.1	ND	1	0.1
Zinc	2,000	ND	20	5.1	7.1 J	20	5.1	ND	20	5.1	5.1 J	20	5.1
CYANIDE	Class GA Value (µg/L)	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL
Cyanide, Total	200	NA	NA	NA	ND	5	1	NA	NA	NA	3 J	5	1

Notes:

Bold and highlighted indicates the value exceeds the corresponding Class GA value.

J - Estimated value

MDL - Method detection limit

NA - Not analyzed

NC - No criterion

ND - Compound not detected

RL - Reporting limit

µg/L - Micrograms per liter

Table 3
The Port Authority of New York and New Jersey
Howland Hook Marine Terminal - Port Ivory Facility - Site 1
Staten Island, New York
Summary of 2016 Results of Analysis of Groundwater for Metals and Cyanide

SAMPLE ID		PRW-07						FIELD BLANK					
SAMPLING DATE		4/6/2016						4/6/2016					
LAB SAMPLE ID		L1610064-10						L1610064-10					
SAMPLE MATRIX		WATER						WATER					
SAMPLE PREPARATION		FILTERED			UNFILTERED			FILTERED			UNFILTERED		
METALS	Class GA Value (µg/L)	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL
Antimony	3	1.5 J	4	0.1	0.5 J	4	0.1	ND	2	0.1	ND	2	0.1
Arsenic	25	1.5	1	0.2	1.6	1	0.2	ND	0.5	0.1	ND	0.5	0.1
Barium	1,000	32.6	1	0.1	28.2	1	0.1	0.1 J	0.5	0.1	ND	0.5	0.1
Beryllium	3	ND	1	0.3	ND	1	0.3	ND	0.5	0.2	ND	0.5	0.2
Cadmium	5	ND	0.4	0.1	ND	0.4	0.1	ND	0.2	0.1	ND	0.2	0.1
Chromium	50	1.7 J	2	0.5	1.5 J	2	0.5	0.4 J	1	0.3	0.5 J	1	0.3
Copper	200	ND	2	0.5	ND	2	0.5	ND	1	0.3	ND	1	0.3
Lead	25	ND	2	0.3	ND	2	0.3	ND	1	0.1	ND	1	0.1
Mercury	0.7	ND	0.2	0.06	ND	0.2	0.06	ND	0.2	0.06	ND	0.2	0.06
Nickel	100	11.6	6	0.2	16	6	0.2	0.4 J	3	0.1	1.6 J	3	0.1
Selenium	10	5 J	10	2	5 J	10	2	ND	5	1	4 J	5	1
Silver	50	ND	0.8	0.2	ND	0.8	0.2	ND	0.4	0.1	ND	0.4	0.1
Thallium	0.5	ND	1	0.1	ND	1	0.1	ND	0.5	0.1	ND	0.5	0.1
Zinc	2,000	ND	20	5.1	ND	20	5.1	ND	10	2.6	ND	10	2.6
CYANIDE	Class GA Value (µg/L)	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL
Cyanide, Total	200	NA	NA	NA	3 J	5	1	NA	NA	NA	ND	5	1

Notes:

Bold and highlighted indicates the value exceeds the corresponding Class GA value.

J - Estimated value

MDL - Method detection limit

NA - Not analyzed

NC - No criterion

ND - Compound not detected

RL - Reporting limit

µg/L - Micrograms per liter

Table 4
The Port Authority of New York and New Jersey
Howland Hook Marine Terminal - Port Ivory Facility - Site 1
Staten Island, New York
Summary of 2016 Results of Analysis of Surface Water for Volatile Organic Compounds

SAMPLE ID		SW-4			DUP-1			SW-5		
SAMPLING DATE		4/6/2016			4/6/2016			4/6/2016		
LAB SAMPLE ID		L1610064-13			L1610064-15			L1610064-14		
SAMPLE MATRIX		WATER			WATER			WATER		
VOLATILE ORGANIC COMPOUNDS (VOCs)	New York State AWQSGV for Class SD Saline Surface Water (µg/L)	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL
Methylene chloride	200	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
1,1-Dichloroethane	NC	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
Chloroform	NC	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
2-Chloroethylvinyl ether	NC	ND	10	0.7	ND	10	0.7	ND	10	0.7
Carbon tetrachloride	NC	ND	0.5	0.13	ND	0.5	0.13	ND	0.5	0.13
1,2-Dichloropropane	NC	ND	1	0.13	ND	1	0.13	ND	1	0.13
Dibromochloromethane	NC	ND	0.5	0.15	ND	0.5	0.15	ND	0.5	0.15
1,1,2-Trichloroethane	NC	ND	1.5	0.5	ND	1.5	0.5	ND	1.5	0.5
Tetrachloroethene	1	ND	0.5	0.18	ND	0.5	0.18	ND	0.5	0.18
Chlorobenzene	50	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
1,2-Dichloroethane	NC	ND	0.5	0.13	ND	0.5	0.13	ND	0.5	0.13
1,1,1-Trichloroethane	NC	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
Bromodichloromethane	NC	ND	0.5	0.19	ND	0.5	0.19	ND	0.5	0.19
trans-1,3-Dichloropropene	NC	ND	0.5	0.16	ND	0.5	0.16	ND	0.5	0.16
cis-1,3-Dichloropropene	NC	ND	0.5	0.14	ND	0.5	0.14	ND	0.5	0.14
1,3-Dichloropropene, Total	NC	ND	0.5	0.14	ND	0.5	0.14	ND	0.5	0.14
Bromoform	NC	ND	2	0.65	ND	2	0.65	ND	2	0.65
1,1,2,2-Tetrachloroethane	NC	ND	0.5	0.14	ND	0.5	0.14	ND	0.5	0.14
Benzene	10	ND	0.5	0.16	ND	0.5	0.16	ND	0.5	0.16
Toluene	430	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
Ethylbenzene	41	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
Chloromethane	NC	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
Bromomethane	NC	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
Vinyl chloride	NC	ND	1	0.07	ND	1	0.07	ND	1	0.07
Chloroethane	NC	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
1,1-Dichloroethene	NC	ND	0.5	0.14	ND	0.5	0.14	ND	0.5	0.14
trans-1,2-Dichloroethene	NC	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
Trichloroethene	40	ND	0.5	0.18	ND	0.5	0.18	ND	0.5	0.18
1,2-Dichlorobenzene	50*	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
1,3-Dichlorobenzene	50*	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
1,4-Dichlorobenzene	50*	ND	2.5	0.7	ND	2.5	0.7	ND	2.5	0.7
Acrylonitrile	NC	ND	5	0.63	ND	5	0.63	ND	5	0.63
Acrolein	NC	ND	5	1.5	ND	5	1.5	ND	5	1.5

Notes:

AWQSGV = Ambient Water Quality Standards and Guidance Values for SD water classification as published in the Division of Water Technical and Operational Guidance Series (1.1.1).

RL - Reporting limit

NC - No criterion

ND - Compound not detected

MDL - Method detection limit

µg/L - Micrograms per liter

* Applies to the sum of 1,2-, 1-3-, and 1,4-dichlorobenzene.

DUP-1 is a duplicate of sample SW-4

Table 5
The Port Authority of New York and New Jersey
Howland Hook Marine Terminal - Port Ivory Facility - Site 1
Staten Island, New York
Summary of 2016 Results of Analysis of Surface Water for Semi-Volatile Organic Compounds

SAMPLE ID		SW-4			DUP-1			SW-5		
SAMPLING DATE		4/6/2016			4/6/2016			4/6/2016		
LAB SAMPLE ID		L1610064-13			L1610064-15			L1610064-14		
SAMPLE MATRIX		WATER			WATER			WATER		
SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs)	New York State AWQSGV for Class SD Saline Surface Water (µg/L)	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL
1,2,4-Trichlorobenzene	50	ND	5	0.66	ND	5	0.66	ND	5	0.66
Benzidine	NC	ND	20	8.1	ND	20	8.1	ND	20	8.1
n-Nitrosodimethylamine	NC	ND	2	0.67	ND	2	0.67	ND	2	0.67
Bis(2-chloroethyl)ether	NC	ND	2	0.67	ND	2	0.67	ND	2	0.67
3,3'-Dichlorobenzidine	NC	ND	5	1.4	ND	5	1.4	ND	5	1.4
2,4-Dinitrotoluene	NC	ND	5	0.84	ND	5	0.84	ND	5	0.84
2,6-Dinitrotoluene	NC	ND	5	1.1	ND	5	1.1	ND	5	1.1
(Hydr)Azobenzene	NC	ND	2	0.75	ND	2	0.75	ND	2	0.75
4-Chlorophenyl phenyl ether	NC	ND	2	0.62	ND	2	0.62	ND	2	0.62
4-Bromophenyl phenyl ether	NC	ND	2	0.73	ND	2	0.73	ND	2	0.73
Bis(2-chloroisopropyl)ether	NC	ND	2	0.7	ND	2	0.7	ND	2	0.7
Bis(2-chloroethoxy)methane	NC	ND	5	0.63	ND	5	0.63	ND	5	0.63
Hexachlorocyclopentadiene	NC	ND	20	7.8	ND	20	7.8	ND	20	7.8
Isophorone	NC	ND	5	0.6	ND	5	0.6	ND	5	0.6
Nitrobenzene	NC	ND	2	0.75	ND	2	0.75	ND	2	0.75
NDPA/DPA	NC	ND	2	0.64	ND	2	0.64	ND	2	0.64
n-Nitrosodi-n-propylamine	NC	ND	5	0.7	ND	5	0.7	ND	5	0.7
Bis(2-ethylhexyl)phthalate	NC	ND	3	0.91	ND	3	0.91	ND	3	0.91
Butyl benzyl phthalate	NC	ND	5	1.3	ND	5	1.3	ND	5	1.3
Di-n-butylphthalate	NC	ND	5	0.69	ND	5	0.69	ND	5	0.69
Di-n-octylphthalate	NC	ND	5	1.1	ND	5	1.1	ND	5	1.1
Diethyl phthalate	NC	ND	5	0.63	ND	5	0.63	ND	5	0.63
Dimethyl phthalate	NC	ND	5	0.65	ND	5	0.65	ND	5	0.65
2,4,6-Trichlorophenol	NC	ND	5	0.68	ND	5	0.68	ND	5	0.68
p-Chloro-m-cresol	NC	ND	2	0.62	ND	2	0.62	ND	2	0.62
2-Chlorophenol	NC	ND	2	0.63	ND	2	0.63	ND	2	0.63
2,4-Dichlorophenol	NC	ND	5	0.77	ND	5	0.77	ND	5	0.77
2,4-Dimethylphenol	1,000	ND	5	1.6	ND	5	1.6	ND	5	1.6
2-Nitrophenol	NC	ND	10	1.5	ND	10	1.5	ND	10	1.5
4-Nitrophenol	NC	ND	10	1.8	ND	10	1.8	ND	10	1.8
2,4-Dinitrophenol	400	ND	20	5.5	ND	20	5.5	ND	20	5.5
4,6-Dinitro-o-cresol	NC	ND	10	2.1	ND	10	2.1	ND	10	2.1
Phenol	NC	ND	5	1.9	ND	5	1.9	ND	5	1.9
Acenaphthene	60	0.05 J	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04
2-Chloronaphthalene	NC	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04
Fluoranthene	NC	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04
Hexachlorobutadiene	0.01	ND	0.5	0.04	ND	0.5	0.04	ND	0.5	0.04
Naphthalene	140	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04
Benzo(a)anthracene	NC	ND	0.2	0.02	ND	0.2	0.02	ND	0.2	0.02
Benzo(a)pyrene	0.0006	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04
Benzo(b)fluoranthene	NC	ND	0.2	0.02	ND	0.2	0.02	ND	0.2	0.02
Benzo(k)fluoranthene	NC	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04
Chrysene	NC	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04
Acenaphthylene	NC	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04
Anthracene	50	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04
Benzo(ghi)perylene	NC	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04
Fluorene	23	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04
Phenanthrene	14	ND	0.2	0.02	ND	0.2	0.02	ND	0.2	0.02
Dibenzo(a,h)anthracene	NC	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04
Indeno(1,2,3-cd)Pyrene	NC	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04
Pyrene	NC	ND	0.2	0.04	ND	0.2	0.04	ND	0.2	0.04
Pentachlorophenol	NC	ND	0.8	0.22	ND	0.8	0.22	ND	0.8	0.22
Hexachlorobenzene	0.00003	ND	0.8	0.03	ND	0.8	0.03	ND	0.8	0.03
Hexachloroethane	0.6	ND	0.8	0.03	ND	0.8	0.03	ND	0.8	0.03

Notes:
AWQSGV = Ambient Water Quality Standards and Guidance Values for SD water classification as published in the Division of Water Technical and Operational Guidance Series (1.1.1).
J - Estimated value
MDL - Method detection limit
NC - No criterion
ND - Compound not detected
RL - Reporting limit
µg/L - Micrograms per liter
DUP-1 is a duplicate of sample SW-4

Table 6
The Port Authority of New York and New Jersey
Howland Hook Marine Terminal - Port Ivory Facility - Site 1
Staten Island, New York
Summary of 2016 Results of Analysis of Surface Water for Metals and Cyanide

SAMPLE ID		SW-4						DUP-1						SW-5					
SAMPLING DATE		4/6/2016						4/6/2016						4/6/2016					
LAB SAMPLE ID		L1610064-13						L1610064-15						L1610064-14					
SAMPLE MATRIX		WATER						WATER						WATER					
SAMPLE PREPARATION		FILTERED			UNFILTERED			FILTERED			UNFILTERED			FILTERED			UNFILTERED		
METALS	New York State AWQSGV for Class SD Saline Surface Water (µg/L)	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL
Antimony	NC	1.1 J	4	0.1	0.8 J	4	0.1	0.3 J	4	0.1	0.5 J	4	0.1	0.4 J	4	0.1	0.6 J	4	0.1
Arsenic	120*	2.1	1	0.2	3	1	0.2	1.7	1	0.2	2.3	1	0.2	3	1	0.2	3	1	0.2
Barium	NC	46.3	1	0.1	46.7	1	0.1	32.7	1	0.1	36.2	1	0.1	35.8	1	0.1	37.7	1	0.1
Beryllium	NC	ND	1	0.3	ND	1	0.3	ND	1	0.3	ND	1	0.3	ND	1	0.3	ND	1	0.3
Cadmium	21	ND	0.4	0.1	0.1 J	0.4	0.1	ND	0.4	0.1	ND	0.4	0.1	ND	0.4	0.1	0.1 J	0.4	0.1
Chromium	NC	1 J	2	0.5	2 J	2	0.5	1.1 J	2	0.5	1.8 J	2	0.5	1.4 J	2	0.5	1.6 J	2	0.5
Copper	4.8	1.8 J	2	0.5	**6.2**	2	0.5	2.2	2	0.5	**5.5**	2	0.5	2.4	2	0.5	**6**	2	0.5
Lead	204	0.9 J	2	0.3	8.7	2	0.3	ND	2	0.3	6.1 J	10	1.3	0.5 J	2	0.3	6.4 J	10	1.3
Mercury	0.0007*	ND	0.2	0.06	ND	0.2	0.06	ND	0.2	0.06	ND	0.2	0.06	ND	0.2	0.06	ND	0.2	0.06
Nickel	74	5 J	6	0.2	9	6	0.2	3.3 J	6	0.2	ND	6	0.2	3.8 J	6	0.2	3.6 J	6	0.2
Selenium	NC	ND	10	2	ND	10	2	ND	10	2	4 J	10	2	ND	10	2	8 J	10	2
Silver	2.3	0.6 J	0.8	0.2	0.2 J	0.8	0.2	0.4 J	0.8	0.2	ND	0.8	0.2	0.6 J	0.8	0.2	ND	0.8	0.2
Thallium	NC	ND	1	0.1	ND	0.4	0.1	ND	1	0.1	ND	5	0.6	ND	1	0.1	ND	5	0.6
Zinc	95	17.7 J	20	5.1	51.8	20	5.1	10.5 J	20	5.1	33.1	20	5.1	12.5 J	20	5.1	36.4	20	5.1
CYANIDE	New York State AWQSGV for Class SD Saline Surface Water (µg/L)	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL	Result (µg/L)	RL	MDL
Cyanide	3,000	NA	NA	NA	1 J	5	1	NA	NA	NA	ND	5	1	NA	NA	NA	2 J	5	1

Notes:
AWQSGV = Ambient Water Quality Standards and Guidance Values for SD water classification as published in the Division of Water Technical and Operational Guidance Series (1.1.1).
J - Estimated value
NA - Not analyzed.
NC - No criterion
ND - Compound not detected
MDL - Method detection limit
RL - Reporting limit
µg/L - Micrograms per liter
* Applies to dissolved only
Bold concentrations in shaded cells exceed the AWQSGVs.
DUP-1 is a duplicate of sample SW-4

ATTACHMENT A – PHOTOGRAPH LOG

Appendix A
Photograph Log – April 7, 2016

Photo 1: View of environmental cover (gravel) in Site 1 taken facing west.

Photo 2: View of environmental cover (gravel) in Site 1 taken facing north.

Photo 3: View of environmental cover (asphalt) in Site 1 taken facing northwest.

Photo 4: View of environmental cover (gravel) in Site 1 taken facing north-northwest.

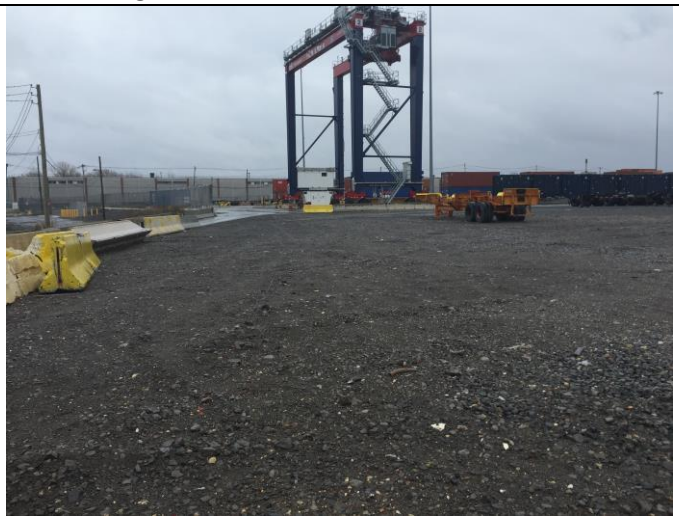


Photo 5: View of environmental cover (gravel) in Site 1 taken facing southeast.

Photo 6: View of environmental cover (gravel) in Site 1 taken facing northwest.

TRC Job No.	Photographs Taken By:	Page No.	Client:	Site Name & Address:	
266179	L. Metcalf	1 of 1	The Port Authority of New York and New Jersey	Port Ivory Site 1 40 Western Avenue Staten Island, New York	TRC

Appendix A
Photograph Log – September 29, 2016

Photo 1: View of environmental cover (concrete and gravel) in Site 1 taken facing north.

Photo 2: View of environmental cover (concrete and asphalt) in Site 1.

Photo 3: View of environmental cover (gravel) on the western boundary of Site 1.

Photo 4: View of environmental cover (gravel) in Site 1 taken facing south.

Photo 5: View of environmental cover (asphalt and gravel) in Site 1 taken facing southwest.

Photo 6: View of asphalt roadway in Site 1 taken facing west-northwest.

TRC Job No.	Photographs Taken By:	Page No.	Client:	Site Name & Address:	
266179	L. Metcalf	1 of 1	The Port Authority of New York and New Jersey	Port Ivory Site 1 40 Western Avenue Staten Island, New York	TRC

ATTACHMENT B – GROUNDWATER SAMPLING LOGS

EST Associates, Inc.

LOW FLOW SAMPLING
FIELD DATA SHEETS

Client: Port Authority | **EST Technician:** Mike Spata

Site: Port Ivory | **Weather:** 40's partly cloudy

Date: 4/6/2016

Monitoring Well #: PRW-01 | **Well Depth:** 11.70 ft | **Screened/Open Interval:** NA ft

Well Permit #: NA | **Well Diameter:** 4 inches

PID Readings (ppm)

Background: 0.0 | **Pump Intake Depth:** 9.5 ft below TOC

Beneath Outer Cap: 0.0 | **Depth to Water Before Pump Installation:** 5.64 ft below TOC

Beneath Inner Cap: 0.8 | **Purge Method** stainless steel submersible pump

TIME	Purging	Sampling	pH (pH units)		Temperature (°C)		Specific Conductivity (uS/cm)		Dissolved Oxygen (mg/L)		Redox Potential (mV)		Turbidity (NTU)		Pumping Rate (ml/min)	Depth to Water (ft below TOC)
			Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change		
13:35	x		7.26	NA	12.24	NA	5014	NA	0.65	NA	-130.6	NA	105	NA	250	5.79
13:40	x		7.31	0.05	12.15	-0.09	5060	46	0.27	-0.38	-132.4	-1.8	115	10	250	5.79
13:45	x		7.32	0.01	12.23	0.08	5027	-33	0.24	-0.03	-129.8	2.6	113	-2	250	5.81
13:50	x		7.33	0.01	12.44	0.21	4902	-125	0.19	-0.05	-116.1	13.7	102	-11	250	5.84
13:55	x		7.32	-0.01	12.64	0.20	4690	-212	0.09	-0.10	-128.6	-12.5	98.4	-3.6	250	5.87
14:00	x		7.30	-0.02	12.58	-0.06	4312	-378	0.13	0.04	-130.7	-2.1	91.3	-7.1	250	5.87
14:05	x		7.30	0.00	12.45	-0.13	4265	-47	0.14	0.01	-133.6	-2.9	87.6	-3.7	250	5.87
14:10	x		7.30	0.00	12.49	0.04	4240	-25	0.14	0.00	-135.0	-1.4	85.7	-1.9	250	5.87

Purge Start: 13:29
Purge End: 14:10
Sample Time: 14:12

Sample notes:

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mV for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

EST Associates, Inc.

LOW FLOW SAMPLING
FIELD DATA SHEETS

Client: Port Authority | **EST Technician:** Mike Spata

Site: Port Ivory | **Weather:** 40's partly cloudy

Date: 4/6/2016

Monitoring Well #: PRW-02 | **Well Depth:** 14.82 ft | **Screened/Open Interval:** NA ft

Well Permit #: NA | **Well Diameter:** 4 inches

PID Readings (ppm)

Background: 0.0 | **Pump Intake Depth:** 9.5 ft below TOC

Beneath Outer Cap: 0.0 | **Depth to Water Before Pump Installation:** 5.74 ft below TOC

Beneath Inner Cap: 0.0 | **Purge Method** stainless steel submersible pump

TIME	Purging	Sampling	pH (pH units)		Temperature (°C)		Specific Conductivity (uS/cm)		Dissolved Oxygen (mg/L)		Redox Potential (mV)		Turbidity (NTU)		Pumping Rate (ml/min)	Depth to Water (ft below TOC)
			Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change		
11:00	x		7.09	NA	13.24	NA	3520	NA	1.34	NA	-125.6	NA	22.8	NA	250	5.86
11:05	x		7.12	0.03	13.15	-0.09	3565	45	1.21	-0.13	-135.2	-9.6	22.3	-0.5	250	5.86
11:10	x		7.14	0.02	13.61	0.46	3569	4	0.79	-0.42	-135.1	0.1	21.2	-1.1	250	5.86
11:15	x		7.14	0.00	13.86	0.25	3580	11	0.67	-0.12	-148.3	-13.2	26.7	5.5	250	5.87
11:20	x		7.16	0.02	13.94	0.08	3596	16	0.64	-0.03	-151.3	-3.0	27.2	0.5	250	5.87
11:25	x		7.17	0.01	13.87	-0.07	3603	7	0.62	-0.02	-157.4	-6.1	27.9	0.7	250	5.87

Purge Start: 10:52
Purge End: 11:25
Sample Time: 11:27

Sample notes:
FB at 1030

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mV for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

EST Associates, Inc.

LOW FLOW SAMPLING
FIELD DATA SHEETS

Client: Port Authority | **EST Technician:** C. Bachmann

Site: Port Ivory | **Weather:** 40's clear

Date: 4/6/2016

Monitoring Well #: PRW-03 | **Well Depth:** 17.31 ft | **Screened/Open Interval:** NA ft

Well Permit #: NA | **Well Diameter:** 4 inches

PID Readings (ppm)

Background: 0.0 | **Pump Intake Depth:** 10.5 ft below TOC

Beneath Outer Cap: 0.0 | **Depth to Water Before Pump Installation:** 8.87 ft below TOC

Beneath Inner Cap: 0.5 | **Purge Method** stainless steel submersible pump

TIME	Purging	Sampling	pH (pH units)		Temperature (°C)		Specific Conductivity (uS/cm)		Dissolved Oxygen (mg/L)		Redox Potential (mV)		Turbidity (NTU)		Pumping Rate (ml/min)	Depth to Water (ft below TOC)
			Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change		
13:45	x		7.98	NA	8.84	NA	1853	NA	0.59	NA	-136.7	NA	33.4	NA	290	8.98
13:50	x		7.78	-0.20	9.01	0.17	1694	-159	0.51	-0.08	-125.4	11.3	22.9	-10.5	290	9.05
13:55	x		7.75	-0.03	9.15	0.14	1626	-68	0.48	-0.03	-116.8	8.6	17.3	-5.6	290	9.11
14:00	x		7.73	-0.02	9.28	0.13	1609	-17	0.40	-0.08	-112.9	3.9	13.8	-3.5	290	9.17
14:05	x		7.69	-0.04	9.35	0.07	1607	-2	0.37	-0.03	-111.2	1.7	11.5	-2.3	290	9.20
14:10	x		7.67	-0.02	9.43	0.08	1605	-2	0.35	-0.02	-110.8	0.4	9.91	-1.59	290	9.23
14:15	x		7.66	-0.01	9.50	0.07	1604	-1	0.33	-0.02	-110.5	0.3	9.87	-0.04	290	9.27
14:20	x		7.66	0.00	9.56	0.06	1603	-1	0.32	-0.01	-110.3	0.2	9.85	-0.02	290	9.34
14:25		x	7.64	-0.02	9.61	0.05	1601	-2	0.35	0.03	-109.7	0.6	9.72	-0.13	290	9.39
14:30		x	7.65	0.01	9.70	0.09	1597	-4	0.38	0.03	-109.2	0.5	9.69	-0.03	290	9.45
14:35		x	7.64	-0.01	9.78	0.08	1595	-2	0.36	-0.02	-108.8	0.4	9.65	-0.04	290	9.51
14:40		x	7.63	-0.01	9.84	0.06	1594	-1	0.39	0.03	-108.6	0.2	9.64	-0.01	290	9.58

Purge Start: 13:40
Purge End: 14:20
Sample Time: 14:22

Sample notes:

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mV for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

EST Associates, Inc.

LOW FLOW SAMPLING
FIELD DATA SHEETS

Client: Port Authority | **EST Technician:** C. Bachmann

Site: Port Ivory | **Weather:** 40's clear

Date: 4/6/2016

Monitoring Well #: PRW-04 | **Well Depth:** 16.14 ft | **Screened/Open Interval:** NA ft

Well Permit #: NA | **Well Diameter:** 4 inches

PID Readings (ppm)

Background: 0.0 | **Pump Intake Depth:** 9.5 ft below TOC

Beneath Outer Cap: 0.0 | **Depth to Water Before Pump Installation:** 4.28 ft below TOC

Beneath Inner Cap: 0.1 | **Purge Method** stainless steel submersible pump

TIME	Purging	Sampling	pH (pH units) Reading	pH Change	Temperature (°C) Reading	Temperature Change	Specific Conductivity (uS/cm) Reading	Specific Conductivity Change	Dissolved Oxygen (mg/L) Reading	Dissolved Oxygen Change	Redox Potential (mV) Reading	Redox Potential Change	Turbidity (NTU) Reading	Turbidity Change	Pumping Rate (ml/min)	Depth to Water (ft below TOC)
12:30	x		9.81	NA	8.81	NA	1085	NA	1.54	NA	-244.6	NA	89.6	NA	300	4.46
12:35	x		9.96	0.15	8.56	-0.25	1113	28	1.39	-0.15	-238.1	6.5	71.4	-18.2	300	4.53
12:40	x		10.01	0.05	8.43	-0.13	1116	3	1.21	-0.18	-226.7	11.4	42.7	-28.7	300	4.61
12:45	x		10.03	0.02	8.52	0.09	1119	3	1.07	-0.14	-224.3	2.4	31.6	-11.1	300	4.69
12:50	x		10.04	0.01	8.61	0.09	1121	2	1.05	-0.02	-224.8	-0.5	22.3	-9.3	300	4.78
12:55	x		10.03	-0.01	8.70	0.09	1123	2	1.04	-0.01	-225.1	-0.3	21.9	-0.4	300	4.85
13:00	x		10.04	0.01	8.77	0.07	1125	2	1.03	-0.01	-224.7	0.4	21.4	-0.5	300	4.92
13:05	x		10.05	0.01	8.85	0.08	1124	-1	1.01	-0.02	-224.5	0.2	21.0	-0.4	300	4.99
13:10		x	10.07	0.02	8.91	0.06	1122	-2	0.98	-0.03	-224.0	0.5	19.7	-1.3	300	5.06
13:15		x	10.06	-0.01	8.97	0.06	1120	-2	0.99	0.01	-223.7	0.3	19.3	-0.4	300	5.11
13:20		x	10.06	0.00	9.04	0.07	1118	-2	1.03	0.04	-224.1	-0.4	18.9	-0.4	300	5.17
13:25		x	10.07	0.01	9.12	0.08	1116	-2	1.08	0.05	-224.6	-0.5	19.4	0.5	300	5.22

Purge Start: 12:25
Purge End: 13:05
Sample Time: 13:07

Sample notes:

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mV for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

EST Associates, Inc.

LOW FLOW SAMPLING
FIELD DATA SHEETS

Client: Port Authority **EST Technician:** R. Deberardinis

Site: Port Ivory **Weather:** 50's overcast

Date: 4/7/2016

Monitoring Well #: PRW-05 **Well Depth:** 11.58 ft **Screened/Open Interval:** NA ft

Well Permit #: NA **Well Diameter:** 4 inches

PID Readings (ppm)

Background: 0.0 **Pump Intake Depth:** 7.0 ft below TOC

Beneath Outer Cap: 0.0 **Depth to Water Before Pump Installation:** 4.13 ft below TOC

Beneath Inner Cap: 0.0 **Purge Method** stainless steel submersible pump

TIME	Purging	Sampling	pH (pH units)		Temperature (°C)		Specific Conductivity (uS/cm)		Dissolved Oxygen (mg/L)		Redox Potential (mV)		Turbidity (NTU)		Pumping Rate (ml/min)	Depth to Water (ft below TOC)
			Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change		
10:15	x		6.43	NA	14.04	NA	1283	NA	0.72	NA	3.2	NA	10.3	NA	200	4.17
10:20	x		6.28	-0.15	13.92	-0.12	1409	126	0.42	-0.30	-2.6	-5.8	9.80	-0.50	200	4.17
10:25	x		6.17	-0.11	13.85	-0.07	1521	112	0.27	-0.15	-7.7	-5.1	9.36	-0.44	200	4.17
10:30	x		6.15	-0.02	13.91	0.06	1661	140	0.22	-0.05	-10.8	-3.1	8.14	-1.22	200	4.17
10:35	x		6.14	-0.01	13.78	-0.13	1794	133	0.19	-0.03	-13.4	-2.6	6.87	-1.27	200	4.17
10:40	x		6.13	-0.01	13.63	-0.15	1997	203	0.17	-0.02	-15.2	-1.8	6.22	-0.65	200	4.17
10:45	x		6.11	-0.02	13.57	-0.06	2084	87	0.15	-0.02	-17.8	-2.6	5.39	-0.83	200	4.17
10:50	x		6.10	-0.01	13.54	-0.03	2091	7	0.14	-0.01	-21.4	-3.6	5.30	-0.09	200	4.17
10:55	x		6.10	0.00	13.55	0.01	2099	8	0.14	0.00	-23.8	-2.4	5.11	-0.19	200	4.17

Purge Start: 10:10
Purge End: 10:55
Sample Time: 10:56

Sample notes:

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mV for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

EST Associates, Inc.

LOW FLOW SAMPLING
FIELD DATA SHEETS

Client: Port Authority | **EST Technician:** Mike Spata

Site: Port Ivory | **Weather:** 40's partly cloudy

Date: 4/6/2016

Monitoring Well #: PRW-06 | **Well Depth:** 12.84 ft | **Screened/Open Interval:** NA ft

Well Permit #: NA | **Well Diameter:** 4 inches

PID Readings (ppm)

Background: 0.0 | **Pump Intake Depth:** 9.5 ft below TOC

Beneath Outer Cap: 0.0 | **Depth to Water Before Pump Installation:** 5.01 ft below TOC

Beneath Inner Cap: 0.0 | **Purge Method** stainless steel submersible pump

TIME	Purging	Sampling	pH (pH units)		Temperature (°C)		Specific Conductivity (uS/cm)		Dissolved Oxygen (mg/L)		Redox Potential (mV)		Turbidity (NTU)		Pumping Rate (ml/min)	Depth to Water (ft below TOC)
			Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change		
12:15	x		6.61	NA	11.96	NA	1271	NA	0.48	NA	-121.6	NA	43.4	NA	250	5.38
12:20	x		6.61	0.00	12.03	0.07	1269	-2	0.38	-0.10	-121.2	0.4	35.4	-8.0	250	5.47
12:25	x		6.60	-0.01	12.09	0.06	1262	-7	0.27	-0.11	-120.9	0.3	29.3	-6.1	250	5.59
12:30	x		6.60	0.00	12.14	0.05	1262	0	0.22	-0.05	-120.8	0.1	26.4	-2.9	250	5.67
12:35	x		6.60	0.00	12.19	0.05	1262	0	0.17	-0.05	-121.3	-0.5	26.9	0.5	250	5.76
12:40	x		6.59	-0.01	12.07	-0.12	1261	-1	0.16	-0.01	-122.9	-1.6	27.4	0.5	250	5.83
12:45	x		6.59	0.00	12.13	0.06	1261	0	0.16	0.00	-123.7	-0.8	28.1	0.7	250	5.94

Purge Start: 12:06
Purge End: 12:45
Sample Time: 12:46

Sample notes:

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mV for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

EST Associates, Inc.

LOW FLOW SAMPLING
FIELD DATA SHEETS

Client: Port Authority | **EST Technician:** C. Bachmann

Site: Port Ivory | **Weather:** 40's clear

Date: 4/6/2016

Monitoring Well #: PRW-07 | **Well Depth:** 24.39 ft | **Screened/Open Interval:** NA ft

Well Permit #: NA | **Well Diameter:** 4 inches

PID Readings (ppm)

Background: 0.0 | **Pump Intake Depth:** 18.5 ft below TOC

Beneath Outer Cap: 0.0 | **Depth to Water Before Pump Installation:** 13.04 ft below TOC

Beneath Inner Cap: 0.1 | **Purge Method** stainless steel submersible pump

TIME	Purging	Sampling	pH (pH units)		Temperature (°C)		Specific Conductivity (uS/cm)		Dissolved Oxygen (mg/L)		Redox Potential (mV)		Turbidity (NTU)		Pumping Rate (ml/min)	Depth to Water (ft below TOC)
			Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change		
10:50	x		8.02	NA	10.91	NA	2522	NA	1.36	NA	-130.8	NA	5.78	NA	380	13.12
10:55	x		8.15	0.13	10.43	-0.48	2659	137	1.12	-0.24	-219.5	-88.7	5.47	-0.31	380	13.19
11:00	x		8.19	0.04	10.24	-0.19	2667	8	1.16	0.04	-227.3	-7.8	5.31	-0.16	380	13.25
11:05	x		8.20	0.01	10.32	0.08	2671	4	1.14	-0.02	-228.4	-1.1	5.26	-0.05	380	13.32
11:10	x		8.18	-0.02	10.41	0.09	2673	2	1.13	-0.01	-228.9	-0.5	5.24	-0.02	380	13.45
11:15	x		8.20	0.02	10.53	0.12	2675	2	1.12	-0.01	-229.3	-0.4	5.19	-0.05	380	13.53
11:20		x	8.21	0.01	10.64	0.11	2671	-4	1.17	0.05	-230.0	-0.7	5.21	0.02	380	13.61
11:25		x	8.20	-0.01	10.69	0.05	2668	-3	1.19	0.02	-231.4	-1.4	5.20	-0.01	380	13.67
11:30		x	8.21	0.01	10.73	0.04	2665	-3	1.21	0.02	-231.9	-0.5	5.15	-0.05	380	13.74
11:35		x	8.21	0.00	10.76	0.03	2661	-4	1.18	-0.03	-232.4	-0.5	5.11	-0.04	380	13.80
11:40		x	8.20	-0.01	10.80	0.04	2657	-4	1.15	-0.03	-232.8	-0.4	5.16	0.05	380	13.86
11:45		x	8.21	0.01	10.84	0.04	2655	-2	1.17	0.02	-233.3	-0.5	5.24	0.08	380	13.95
11:50		x	8.22	0.01	10.87	0.03	2653	-2	1.19	0.02	-233.7	-0.4	5.31	0.07	380	14.02
11:55		x	8.22	0.00	10.91	0.04	2651	-2	1.23	0.04	-233.5	0.2	5.28	-0.03	380	14.09
12:00		x	8.22	0.00	10.93	0.02	2649	-2	1.21	-0.02	-233.8	-0.3	5.24	-0.04	380	14.17
12:05		x	8.23	0.01	10.97	0.04	2647	-2	1.18	-0.03	-234.2	-0.4	5.21	-0.03	380	14.23

Purge Start: 10:45
Purge End: 11:15
Sample Time: 11:17

Sample notes: MS/MSD sample. Small white bubbles in all sample jars.

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mV for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

ATTACHMENT C – 2016 INVESTIGATION REPORT

DATED NOVEMBER 4, 2016

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November 4, 2016

Ms. Sally Dewes
Environmental Engineer II
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau B, Section D
625 Broadway
Albany, New York 12233-7016

Re: Howland Hook Marine Terminal – Port Ivory Facility Site 1
40 Western Avenue, Staten Island, New York
VCP Site Number: V-00615-2
2016 Site 1 Investigation Report

Dear Ms. Dewes:

On behalf of The Port Authority of New York and New Jersey (the Port Authority), TRC Engineers, Inc. (TRC) has prepared for the New York State Department of Environmental Conservation (NYSDEC), this 2016 Site 1 Investigation Report for the Howland Hook Marine Terminal (HHMT) - Port Ivory Facility, located at 40 Western Avenue in Staten Island, New York.

This 2016 Site 1 Investigation Report describes the groundwater monitoring well installation and sampling activities which have been completed to characterize toluene in Site 1 groundwater. Additionally, surface water samples were collected to confirm that on-Site groundwater conditions are not impacting surface water quality in Bridge Creek. A description of proposed future environmental activities is also provided in this 2016 Site 1 Investigation Report. Refer to *Figure 1* for a Site Location Map.

Field Activity Summary

Field activities were completed in accordance with the 2015 Investigation Work Plan dated April 4, 2016. It should be noted that the 2015 Investigation Work Plan was implemented in accordance with NYSDEC's comments on the draft 2015 Investigation Work Plan, which were discussed during a conference call on March 24, 2016.

Additionally, the field activities were performed in accordance with the NYSDEC-Approved Site Management Plan (including the Health and Safety Plan and Community Air Monitoring Plan) and NYSDEC *DER-10 Technical Guidance for Site Investigation and Remediation (DER-10).*

Prior to field activities, the required New York One Call notifications were made, and the locations of underground utilities in public roads and rights-of-way were marked out. The Port Authority confirmed that the locations of the work were clear of utilities prior to initiation of the field activities.

Groundwater Monitoring Well Installation

Between May 19 and June 7, 2016, four (4) monitoring wells (PRW-7A, PRW-7B, PRW-7C, and PRW-7D) were installed at Site 1 (refer to Figure 2 for the monitoring well locations). Craig Drilling Companies, Inc. of Mays Landing, New Jersey was retained as a contractor by the Port Authority for drilling services. The monitoring wells were installed utilizing a hollow-stem auger drill rig. During well installation, soil samples were collected continuously from each borehole using split-spoon samplers. Recovered soil samples were inspected and screened with a photoionization detector (PID), and descriptions of each soil sample and soil screening results were recorded. There were no odors, staining, or separate phase liquids observed in the soil samples. Pieces of gypsum (calcium sulfate, discussed further below) were observed in the soil column above the water table in the boreholes for monitoring wells PRW-7B and PRW-7D. Soil samples were not submitted for laboratory analysis. Soil boring logs are presented in *Attachment A.*

The groundwater monitoring well boreholes were advanced approximately 10 feet below the groundwater surface. The wells were screened approximately 10 feet below groundwater surface to approximately five feet above groundwater with threaded 20-slot Schedule 40 PVC well screen and completed to grade with Schedule 40 PVC well casing.

Clean silica sand, Morie No. 1 was placed in the annular space around the permanent groundwater monitoring wells to a minimum of one foot above the top of each well screen. A 2-foot thick bentonite pellet seal was placed above the sand pack, and the remaining annular space above the seal was grouted to the ground surface. The groundwater monitoring wells were completed with secure locking caps and concrete pads with flush-mounted protective manholes (at PRW-7A and PRW-7C) or standpipes with outer protective casings (at PRW-7B and PRW-7D). Well construction logs are provided in *Attachment A*.

Following installation, each well was developed using a peristaltic or submersible pump until the water was reasonably free of turbidity and field parameter readings (pH, conductivity, temperature, oxidation-reduction potential (ORP), and dissolved oxygen (DO)) sufficiently stabilized.

The location and elevation of the top of each PVC casing (cap off) and ground surface adjacent to each new monitoring well (PRW-7A, PRW-7B, PRW-7C, and PRW-7D) were surveyed by a land surveyor licensed to practice in the State of New York. Prior to groundwater sampling (described below), depth to water (feet below top of PVC casing) in each well was gauged. The depths to water ranged from 7.04 feet to 12.71 feet. There was no evidence of groundwater impacts recorded during gauging. The gauging data and survey information were used to determine groundwater surface elevations and prepare a groundwater surface elevation contour

map (refer to *Figure 3).* Based on the groundwater surface elevation contour map, groundwater flow direction is towards Bridge Creek.

Groundwater Sampling

On July 27, 2016, groundwater samples were collected from wells PRW-7, PRW-7A, PRW-7B, PRW-7C, and PRW-7D. Prior to sampling, each well was purged. The monitoring wells were purged utilizing a low-flow, submersible stainless steel pump with dedicated Teflon-lined tubing connected to a flow-through cell for monitoring field parameters. Utilizing a solution of deionized water and Alconox, the submersible pump was decontaminated prior to sampling. Low purging rates were used to minimize suspension of particulate matter. Field parameters, including temperature, conductivity, pH, ORP, turbidity and DO were recorded prior to and during sampling. Groundwater samples were collected after field parameters had stabilized for three (3) consecutive readings within established ranges. The samples collected were containerized in accordance with NYSDEC/USEPA protocols. Groundwater sampling logs are presented in *Attachment B.*

Each sample container was properly labeled, preserved, and placed in a cooler for transport via courier to Alpha Analytical (Alpha) in Westborough, Massachusetts. Alpha is a NYSDOH ELAP-certified analytical laboratory. The groundwater samples were analyzed for toluene and monitored natural attenuation (MNA) parameters including, magnesium (total), total alkalinity, total kjeldahl nitrogen, total organic carbon, and sulfate. A laboratory-prepared trip blank was analyzed for toluene. Standard chain-of-custody procedures were followed. The laboratory analytical data report is presented in *Attachment C.*

Surface Water Sampling

Two surface water samples, SW-6 and SW-7, were collected along the eastern bank of Bridge Creek during low tide. The surface water sampling locations are shown on *Figure 2*. The groundwater sampling event (described above) and the surface water sampling event were completed on the same day (July 27, 2016).

Prior to sampling, field parameter measurements (including pH, conductivity, temperature, ORP, DO, and turbidity) were recorded. The surface water sampling logs are presented in *Attachment B.*

Surface water samples were collected using dedicated amber glass containers which were submerged in Bridge Creek with care taken to minimize sediment suspension. The surface water was transferred directly into laboratory prepared jars, labeled, and sealed, and placed in a chilled cooler for transport via courier to Alpha in Westborough, Massachusetts for analysis for toluene. Standard chain-of-custody procedures were followed. The laboratory analytical data report is presented in *Attachment C.*

Summary of Analytical Results

The New York State Class GA standards and guidance values listed in the NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1 ("Class GA Values") were used to evaluate the groundwater sampling data. The TOGS 1.1.1 Ambient Water Quality Guidance Value for toluene for Class SD Saline Surface Water (AWQGV) was used to evaluate the surface water sampling data.

Attached are the tabulated results of the analyses of the groundwater and surface water samples (refer to *Tables 1 and 2*). Also attached is the groundwater surface elevation contour map generated from Site-wide water level measurements collected during low tide on July 27, 2016 (refer to *Figure 3*). Laboratory analytical data packages are provided in *Attachment C*. A brief discussion of the analytical results is presented below.

Groundwater Sampling Analytical Results

As shown on the attached *Table 1*, toluene was detected at concentrations above the Class GA Value in four of the five groundwater samples collected, at concentrations ranging between 630 and 84,000 micrograms per liter (µg/L) (in PRW-7). Toluene was not detected in the groundwater sample collected from PRW-7C.

Sulfate was detected in all groundwater samples at concentrations ranging between 3.9 and 220 milligrams per liter (mg/L). The highest concentration of sulfate was detected in PRW-7C and, as noted above, toluene was not detected in this groundwater sample. Significantly lower concentrations of sulfate were detected in monitoring wells with elevated toluene concentrations (e.g., PRW-7, PRW-7B, and PRW-7D). The inverse relationship of sulfate and toluene concentrations is typically attributed to sulfate-reducing bacteria (SRB) that utilize sulfate to degrade hydrocarbons, including toluene. The SRB degradation rate may be enhanced by the gypsum (calcium sulfate) that was identified in the borings for monitoring wells PRW-7B and PRW-7D. The solubility of gypsum is approximately 1,800 mg/L, which is an ideal concentration to promote a robust SRB community that will maintain toluene degradation rates.

The results of analysis for toluene and sulfate are summarized on *Figure 4*. Additionally, historic sampling results of analysis for toluene from 2014 through 2016 (in samples collected from PRW-4, PRW-7, and PRW-11) are presented on *Figure 4* for reference.

Surface Water Sampling Analytical Results

The two surface water samples (SW-6 and SW-7) were analyzed for toluene. Toluene was not detected in either sample. A summary of the results of the surface water sampling is shown on *Figure 4.*

Data Validation

The results of analyses of groundwater and surface water samples have been validated. The results of the data validation are summarized in Data Usability Summary Report (DUSR). QA/QC procedures for data completeness; sample holding time and preservation; instrument tuning results; instrument initial and continuing calibration; surrogate spike recovery; matrix spike recovery; matrix spike duplicate recovery and relative percent difference; blank spike recoveries; contamination of calibration blanks, method blanks, or trip blanks; interference check sample results, serial dilution results, internal standards performance; laboratory duplicate results; and reported quantitation limits are documented in the DUSR.

There was no data rejected and the DUSR indicated that the analytical data satisfies the analytical quality control criteria and the data are acceptable for use, with noted data qualifiers. Note that the trip blank submitted to the laboratory is associated with the samples collected from Site 1 for analysis for toluene as well as one sample collected from Site 3, which was submitted to the laboratory on the same day for analysis of Target Compound List (TCL) VOCs. Therefore, an evaluation of the results of the full list of TCL VOCs in the trip blank sample is provided in the DUSR; however, the discussion in this report is limited to the results for toluene. The DUSR is included in *Attachment D*.

Conclusions and Recommendations

The following can be concluded from evaluation of the data presented in this 2016 Site 1 Investigation Report:

- Based on the groundwater surface elevation contour map, groundwater flow direction is towards Bridge Creek.

- Based on the results of analysis of the surface water samples, the surface water quality in Bridge Creek has not been impacted by Site groundwater.

- The highest concentration of toluene in groundwater was detected in monitoring well PRW-7. The source of the contamination in groundwater is suspected to be the historic use of toluene on-Site. Toluene was stored in a 10,000-gallon underground toluene tank in AOC-UST-6 (refer to *Figure 4)*, which was removed in 2005. No other potential source of the toluene detected in groundwater in the vicinity of PRW-7 has been identified.

- Groundwater conditions at PRW-7 are consistent with the results of previous sampling events.

- The observed inverse relationship between sulfate and toluene concentrations is a strong indication that SRB are actively degrading the residual toluene plume. Gypsum, an excellent source of sulfate for SRB, was identified in the soil column in the borings for

monitoring wells PRW-7B and PRW-7D. The gypsum identified in the soil should act as a long term source of sulfate to groundwater, and should continually promote the degradation of toluene by SRB.

Based on the results of the groundwater and surface water sampling, the following activities are proposed:

- One additional monitoring well, PRW-7E, will be installed north of PRW-7B to further characterize groundwater conditions (refer to *Figure 4* for the proposed monitoring well location). Since toluene was not detected in surface water, installation of an additional well west of PRW-7D is not warranted.
- Monitoring well PRW-7E will be installed in accordance with the methodology outlined in the 2015 Investigation Work Plan (which is consistent with the installation and development procedures implemented for PRW-7A, PRW-7B, PRW-7C, and PRW-7D described in this report). The location and elevation of the top of the PVC casing (cap off) and ground surface adjacent to monitoring well PRW-7E will be surveyed by a land surveyor licensed to practice in the State of New York.
- One groundwater sample will be collected from PRW-7E for analysis for toluene and MNA parameters including magnesium (total), total alkalinity, total kjeldahl nitrogen, total organic carbon, and sulfate. A laboratory-prepared trip blank will be analyzed for toluene. Each container will be properly labeled, preserved, and placed in a cooler for transport to a NYSDOH ELAP-certified analytical laboratory. NYSDEC ASP Category B data deliverables will be provided by the laboratory.
- On the day of groundwater sampling, the water levels at monitoring wells in the northwest portion of Site 1 (including PRW-4, PRW-7, PRW-7A, PRW-7B, PRW-7C, PRW-7D, PRW-7E and PRW-11) will be measured to obtain a synoptic round of measurements in order to prepare a localized groundwater surface elevation contour map.

It is anticipated that the well installation and sampling activities described above will be completed prior to the end of the Site 1 monitoring period (January 22, 2017). Therefore, the results of the proposed field activities will be presented in the 2016 Periodic Review Report. The PRR will also include an updated groundwater surface elevation contour map which focuses on the northwest portion of Site 1. Additionally, the PRR will include a DUSR for the PRW-7E sampling results and an evaluation of the quality of the analytical data, and the reliability of the data for its intended use.

Available groundwater data will be evaluated to determine if the monitoring wells installed in 2016 (PRW-7A, PRW-7B, PRW-7C, PRW-7D, and PRW-7E) should be included in the long-term monitoring well network and sampled on an annual basis. Additionally, the two surface water sampling locations (SW-6 and SW-7) will be evaluated for inclusion in the annual surface water sampling program. Remedial action (other than groundwater monitoring) is not proposed

at this time since institutional and engineering controls are established in Site 1, the area of impacted groundwater is not proposed for development, groundwater is not used as a potable source, and surface water is not impacted by on-Site groundwater conditions. In accordance with the established reporting schedule, the 2016 PRR will be submitted to the NYSDEC in early March 2017.

Certification

I, Lindsay Metcalf, certify that I am currently a Qualified Environmental Professional[1] as defined in 6 NYCRR Part 375 and that this 2016 Site 1 Investigation Report was prepared in accordance with applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and the investigation was performed in accordance with the 2015 Investigation Work Plan.

Please contact me at (203) 278-5305 with any questions or comments.

Sincerely,
TRC Engineers, Inc.

Lindsay Metcalf, CHMM
Project Manager

Table 1 – Summary of Results of Analysis of Groundwater for Toluene and Monitored Natural Attenuation Parameters
Table 2 – Summary of Results of Analysis of Surface Water for Toluene

Figure 1 – Site Location Map
Figure 2 – Groundwater and Surface Water Sampling Locations
Figure 3 – Groundwater Surface Elevation Contour Map
Figure 4 – Groundwater and Surface Water Sampling Results and Proposed Monitoring Well Location

Attachment A – Monitoring Well Boring Logs and Construction Logs
Attachment B – Groundwater and Surface Water Sampling Logs
Attachment C – Laboratory Analytical Data Reports
Attachment D – Data Usability Summary Report

[1] Ms. Metcalf is a Certified Hazardous Materials Manager (CHMM), certified by the Institute of Hazardous Materials Management.

cc: W. Glynn, PANYNJ
C. Guder, PANYNJ
V. Carley, PANYNJ
D. Glass, TRC
M. Eberle, TRC
B. Francese, TRC

Tables

Table 1
The Port Authority of New York and New Jersey
HHMT - Port Ivory Facility - Site 1
Staten Island, New York
Summary of Results of Analysis of Groundwater for Toluene and Monitored Natural Attenuation Parameters

SAMPLE ID		PRW-7				PRW-7A				PRW-7B				PRW-7C				PRW-7D				TRIP BLANK			
SAMPLING DATE		7/27/2016				7/27/2016				7/27/2016				7/27/2016				7/27/2016				7/27/2016			
LAB SAMPLE ID		L1623406-05				L1623406-06				L1623406-07				L1623406-08				L1623406-09				L1623406-01			
SAMPLE MATRIX		WATER				WATER				WATER				WATER				WATER				WATER			
VOLATILE ORGANIC COMPOUNDS (VOCs)	Class GA Value (µg/L)	Result (µg/L)	Q	RL	MDL	Result (µg/L)	Q	RL	MDL	Result (µg/L)	Q	RL	MDL	Result (µg/L)	Q	RL	MDL	Result (µg/L)	Q	RL	MDL	Result (µg/L)	Q	RL	MDL
Toluene	5	**84,000**		5,000	1,400	**630**		25	7	**45,000**		5,000	1,400	ND		2.5	0.7	**20,000**		2,500	700	ND		2.5	0.7
MONITORED NATURAL ATTENUATION PARAMETERS	**Class GA Value (mg/L)**	**Result (mg/L)**	**Q**	**RL**	**MDL**	**Result (mg/L)**	**Q**	**RL**	**MDL**	**Result (mg/L)**	**Q**	**RL**	**MDL**	**Result (mg/L)**	**Q**	**RL**	**MDL**	**Result (mg/L)**	**Q**	**RL**	**MDL**				
Alkalinity, Total	NC	582		2	NA	1,220		5	NA	643		4	NA	147		2	NA	444		2	NA				
Nitrogen, Total Kjeldahl	NC	21.5		0.3	0.066	23.2		0.3	0.066	4.91		0.3	0.066	3.32		0.3	0.066	3.67		0.3	0.066				
Sulfate	250	13	J+	10	3.1	13	J+	10	3.1	3.9	J	10	3.1	220	J+	100	31	4.8	J	10	3.1				
Total Organic Carbon	NC	63.1		20	4.56	248		50	11.4	39.6		20	4.56	52.1		10	2.28	22.3		10	2.28				
Magnesium, Total	35	26.8		0.07	0.0223	0.226		0.07	0.0223	**41.2**		1.4	0.446	10		0.07	0.223	24.6		0.07	0.223				

Notes:
NA - Not applicable
NC - No criterion
ND - Compound not detected
J - Estimated value
Q - Qualifier
RL - Reporting limit
MDL - Method detection limit
\+ - Potential high bias due to high recovery in the MS analysis
µg/L - Micrograms per liter
mg/L - Milligrams per liter
Bold and highlighted indicates the value exceeds the corresponding Class GA value.

Table 2
The Port Authority of New York and New Jersey
HHMT - Port Ivory Facility - Site 1
Staten Island, New York
Summary of Results of Analysis of Surface Water for Toluene

SAMPLE ID		SW-6				SW-7			
SAMPLING DATE		7/27/2016				7/27/2016			
LAB SAMPLE ID		L1623406-10				L1623406-11			
SAMPLE MATRIX		WATER				WATER			
VOLATILE ORGANIC COMPOUND (VOC)	New York State AWQSGV for Class SD Saline Surface Water (µg/L)	Result (µg/L)	Q	RL	MDL	Result (µg/L)	Q	RL	MDL
Toluene	430	ND		2.5	0.7	ND		2.5	0.7

Notes:
AWQSGV = Ambient Water Quality Standards and Guidance Values for SD water classification as published in the Division of Water Technical and Operational Guidance Series (1.1.1).
ND - Compound not detected
Q - Qualifier
RL - Reporting limit
MDL - Method detection limit
µg/L - Micrograms per liter

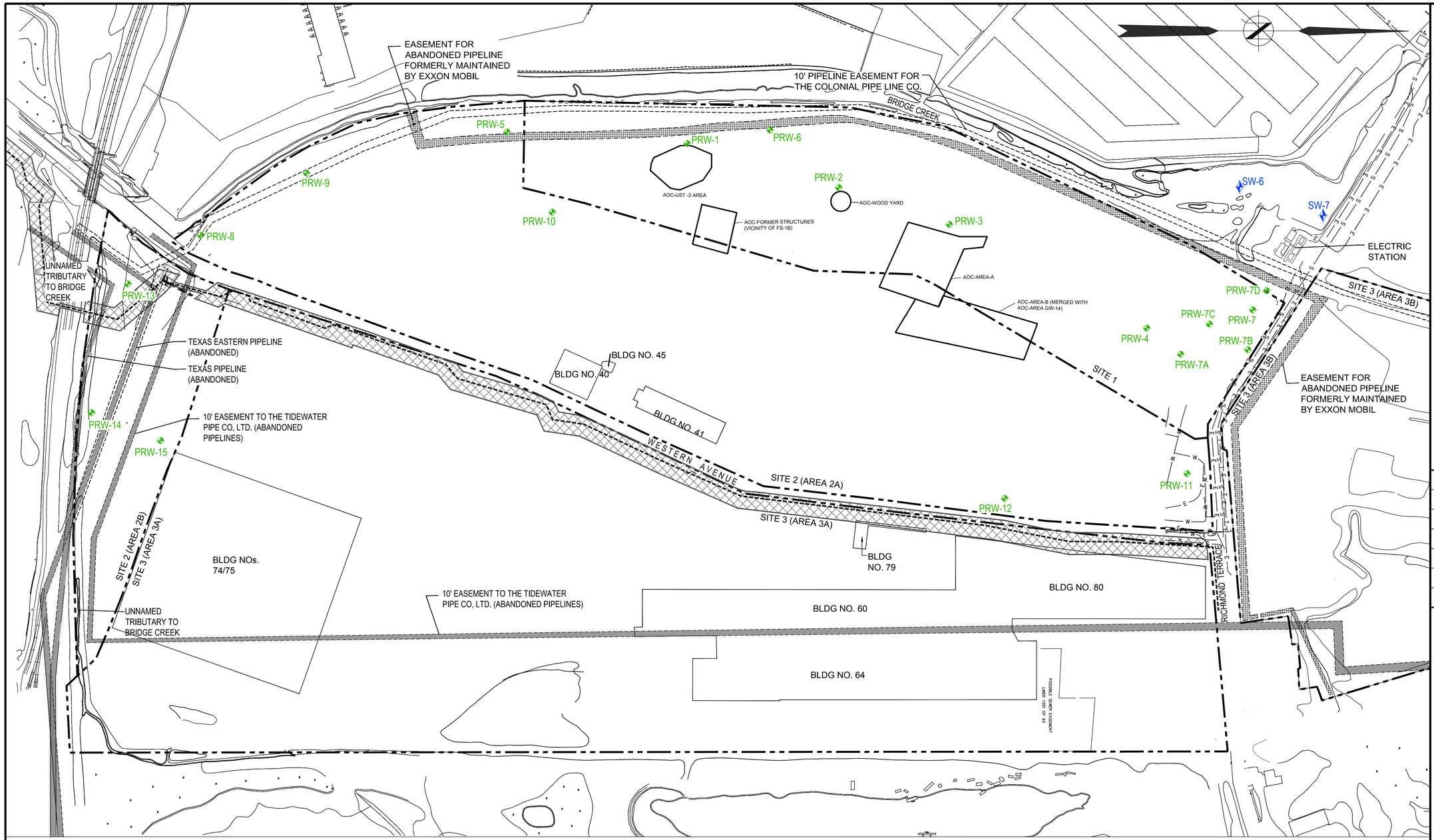
Figures

SOURCE:
UNITED STATES GEOLOGICAL SURVEY
7.5 MINUTE SERIES TOPOGRAPHIC QUADRANGLES
ELIZABETH AND ARTHUR KILL, NY-NJ, 1967,
PHOTOREVISED 1981

NOTES:
HHMT - PORT IVORY FACILITY
CONSISTS OF SITES 1 THROUGH 3.

2000 0 2000 4000
SCALE IN FEET
1" = 2000'
CONTOUR INTERVAL = 10 FEET

THE PORT AUTHORITY OF NY & NJ	HHMT - PORT IVORY FACILITY	Discipline: ENGINEERING DEPARTMENT	OCTOBER 2016 (Date)	1 of 4
LMETCALF (Designed by) HDELGADO (Drawn by) DGLASS (Checked by)	SITE 1	SITE LOCATION MAP	Contract Number / PID Number	Workorder Number / Drawing Number: FIGURE 1



LEGEND (SYMBOLS NOT TO SCALE):

- VCP SITE BOUINDARY
- EXISTING BUILDING
- SW-6 SURFACE WATER SAMPLING LOCATION
- PRW-7 GROUNDWATER MONITORING WELL LOCATION
- 30" SPECTRA PIPELINE
- APPROXIMATE AREA OF SPECTRA PIPELINE EASEMENT
- E — E — E — APPROXIMATE LOCATION OF ELECTRIC LINE
- S — S — S — APPROXIMATE LOCATION OF SANITARY LINE
- T — T — T — APPROXIMATE LOCATION OF TELECOMMUNICATION LINE
- W — W — W — APPROXIMATE LOCATION OF WATER LINE

NOTES:

1. BUILDING NO. 40 HAS BEEN DEMOLISHED. A MODULAR BUILDING MOUNTED ON PIERS HAS BEEN CONSTRUCTED IN THE FOOTPRINT OF FORMER BUILDING 40.
2. VCP - VOLUNTARY CLEANUP PROGRAM

0 120 240
SCALE IN FEET

Sheet 2 of

THE PORT AUTHORITY OF NY & NJ

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

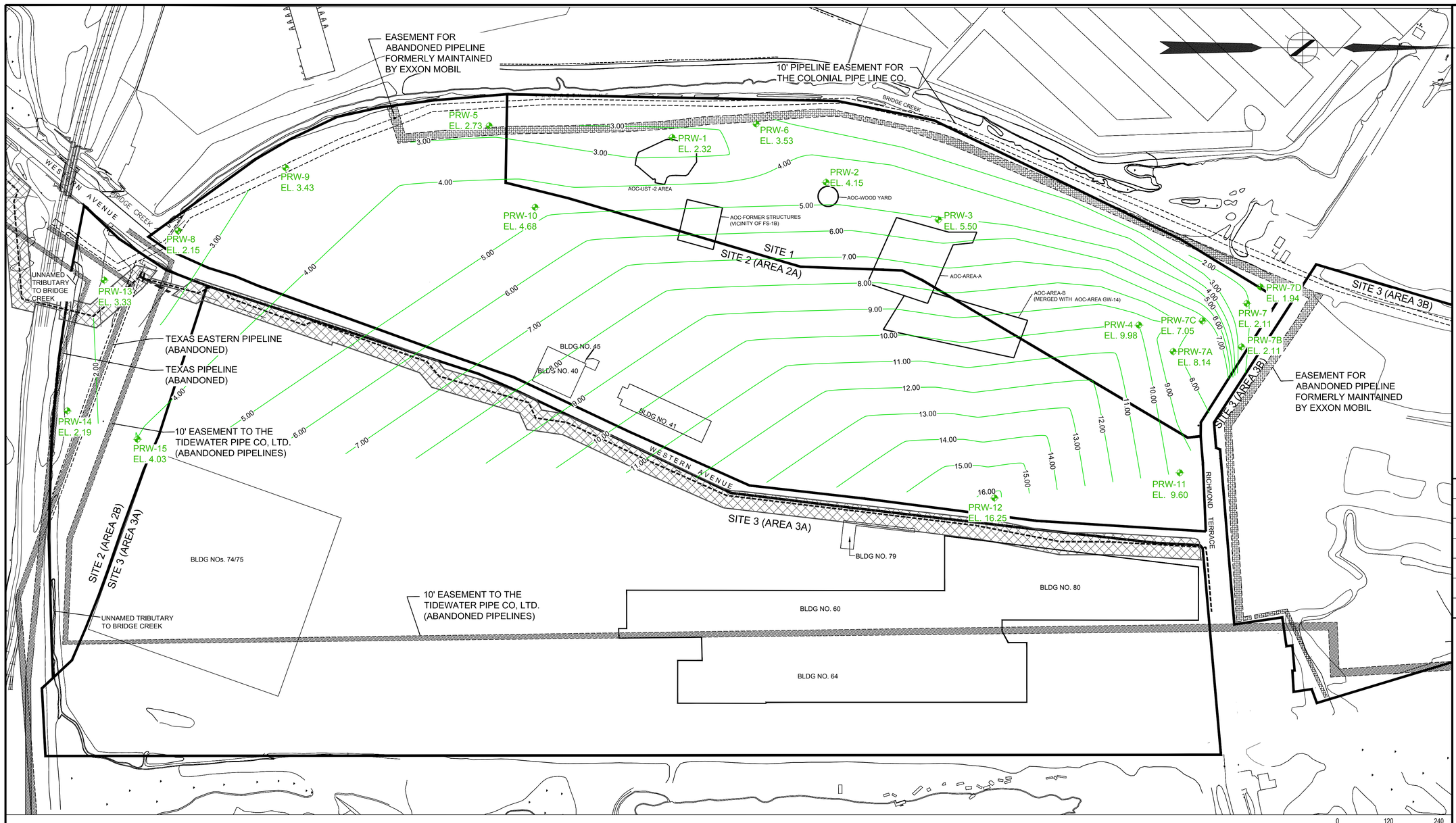
HHMT
PORT IVORY
FACILITY - SITE 1

ENVIRONMENTAL

Title

GROUNDWATER AND SURFACE WATER SAMPLING LOCATIONS

Designed by	L.METCALF
Drawn by	H. DELGADO
Checked by	D. GLASS
Date	OCTOBER 2016
Contract Number	
Drawing Number	FIGURE 2
	PID#



LEGEND (SYMBOLS NOT TO SCALE):

- VCP SITE BOUINDARY
- EXISTING BUILDING
- PRW-7 — GROUNDWATER MONITORING WELL LOCATION
- 30" SPECTRA PIPELINE
- APPROXIMATE AREA OF SPECTRA PIPELINE EASEMENT
- 5.00 — INFERRED GROUNDWATER SURFACE ELEVATION CONTOUR (FEET)
- EL. 2.73 — GROUNDWATER SURFACE ELEVATION (FEET)

NOTES:

1. BUILDING NO. 40 HAS BEEN DEMOLISHED. A MODULAR BUILDING MOUNTED ON PIERS HAS BEEN CONSTRUCTED IN THE FOOTPRINT OF FORMER BUILDING 40.
2. VCP - VOLUNTARY CLEANUP PROGRAM
3. GROUNDWATER SURFACE ELEVATIONS WERE MEASURED DURING LOW TIDE ON 07/27/16. DATUM: NAD 1983.
4. PRW-13 WAS NOT USED IN GENERATING GROUNDWATER SURFACE ELEVATION CONTOURS.

Sheet 3 of

THE PORT AUTHORITY
OF NY & NJ

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

HHMT
PORT IVORY
FACILITY - SITE 1

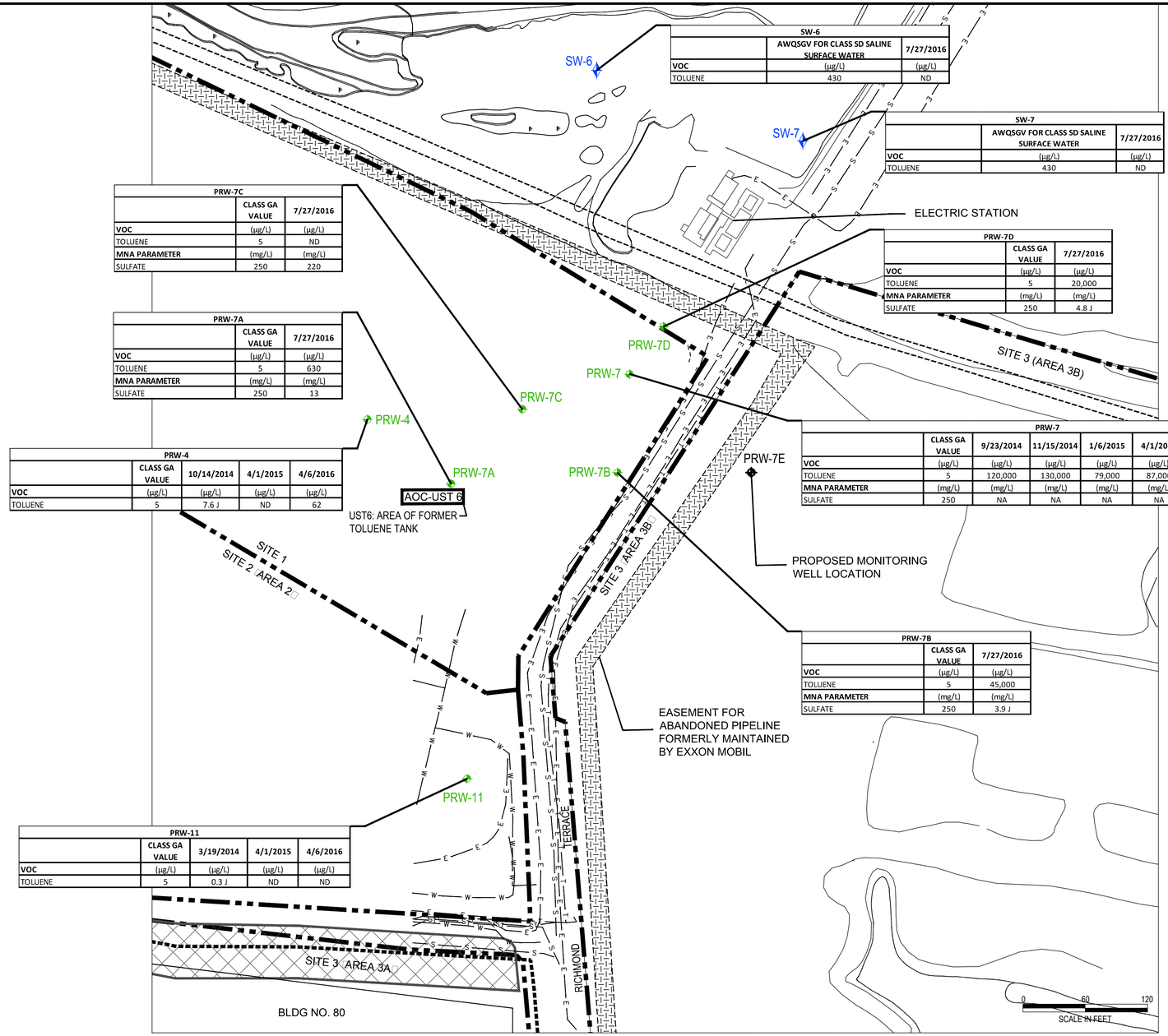
ENVIRONMENTAL

Title

GROUNDWATER SURFACE ELEVATION CONTOUR MAP

Designed by	L.METCALF
Drawn by	H. DELGADO
Checked by	D. GLASS
Date	OCTOBER 2016
Contract Number	
Drawing Number	FIGURE 3

PID#



SW-6	AWQSGV FOR CLASS SD SALINE SURFACE WATER	7/27/2016
VOC	(µg/L)	(µg/L)
TOLUENE	430	ND

SW-7	AWQSGV FOR CLASS SD SALINE SURFACE WATER	7/27/2016
VOC	(µg/L)	(µg/L)
TOLUENE	430	ND

PRW-7C	CLASS GA VALUE	7/27/2016
VOC	(µg/L)	(µg/L)
TOLUENE	5	ND
MNA PARAMETER	(mg/L)	(mg/L)
SULFATE	250	220

PRW-7D	CLASS GA VALUE	7/27/2016
VOC	(µg/L)	(µg/L)
TOLUENE	5	20,000
MNA PARAMETER	(mg/L)	(mg/L)
SULFATE	250	4.8 J

PRW-7A	CLASS GA VALUE	7/27/2016
VOC	(µg/L)	(µg/L)
TOLUENE	5	630
MNA PARAMETER	(mg/L)	(mg/L)
SULFATE	250	13

PRW-7	CLASS GA VALUE	9/23/2014	11/15/2014	1/6/2015	4/1/2015	4/6/2016	7/27/2016
VOC	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
TOLUENE	5	120,000	130,000	79,000	87,000	84,000	84,000
MNA PARAMETER	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
SULFATE	250	NA	NA	NA	NA	NA	13

PRW-4	CLASS GA VALUE	10/14/2014	4/1/2015	4/6/2016
VOC	(µg/L)	(µg/L)	(µg/L)	(µg/L)
TOLUENE	5	7.6 J	ND	62

PRW-7B	CLASS GA VALUE	7/27/2016
VOC	(µg/L)	(µg/L)
TOLUENE	5	45,000
MNA PARAMETER	(mg/L)	(mg/L)
SULFATE	250	3.9 J

PRW-11	CLASS GA VALUE	3/19/2014	4/1/2015	4/6/2016
VOC	(µg/L)	(µg/L)	(µg/L)	(µg/L)
TOLUENE	5	0.3 J	ND	ND

LEGEND (SYMBOLS NOT TO SCALE):

- VCP SITE BOUNDARY
- EXISTING BUILDING
- SW-6 — SURFACE WATER SAMPLING LOCATION
- PRW-7 — GROUNDWATER MONITORING WELL LOCATION
- PRW-7E — PROPOSED MONITORING WELL LOCATION
- 30" SPECTRA PIPELINE
- APPROXIMATE AREA OF SPECTRA PIPELINE EASEMENT
- APPROXIMATE LOCATION OF ELECTRIC LINE
- APPROXIMATE LOCATION OF SANITARY LINE
- APPROXIMATE LOCATION OF TELECOMMUNICATION LINE
- APPROXIMATE LOCATION OF WATER LINE

NOTES:

1. µg/L = MICROGRAMS PER LITER; mg/L = MILLIGRAMS PER LITER
2. VCP = VOLUNTARY CLEANUP PROGRAM
3. CLASS GA VALUES = NYSDEC DIVISION OF WATER TECHNICAL AND OPERATIONAL GUIDANCE SERIES (TOGS) 1.1.1 CLASS GA STANDARDS AND GUIDANCE VALUES
4. AWQSGV = AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES FOR SD SURFACE WATER CLASSIFICATION AS PUBLISHED IN THE DIVISION OF WATER TECHNICAL AND OPERATIONAL GUIDANCE SERIES (TOGS) 1.1.1
5. J = ESTIMATED VALUE
6. NA = NOT ANALYZED
7. ND = COMPOUND NOT DETECTED
8. MNA = MONITORED NATURAL ATTENUATION
9. ONLY RESULTS FOR TOLUENE AND SULFATE ARE SHOWN

Sheet 4 of

THE PORT AUTHORITY OF NY & NJ

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

HHMT

PORT IVORY

FACILITY - SITE 1

ENVIRONMENTAL

Title

GROUND□ ATER AND SURFACE □ ATER SAMPLING RESULTS AND PROPOSED MONITORING □ ELL LOCATION

Designed by	L.METCALF
Drawn by	H. DELGADO
Checked by	D. GLASS
Date	OCTOBER 2016
Contract Number	
Drawing Number	FIGURE 4

PID#

Attachment A
Monitoring Well Boring Logs and Construction Logs

THE PORT AUTHORITY OF NY & NJ

Engineering Department Materials Engineering Unit

Boring Report

Boring No. PRW-7A

Port Ivory Sites 1 and 3 Well Installations

Date Start	5/19/2016
Date End	5/20/2016

Borehole Summary					
		Stabilized Water Depth (ft)	0.0	Depth to Top of ORGANICS (ft)	
Total FILL Thickness including MISC-FILL (ft)	15	Depth to BEDROCK (ft)		Depth to Bottom of ORGANICS (ft)	
MISC-FILL Thickness (ft)	13	Depth to DECOM ROCK (ft)		Thickness of ORGANICS (excluding non-organic lenses; eg sand)	

Sample No.	Start Depth	End Depth	Drilling Method	Sampler	Spoon Blows/6"	Re-cov'd	Sample Description	Remarks
Start with 01, 02, 03,..	see notes in col. J (ft)	(ft)			use * to indicate 300#/30in hammer used.	(in)	For FILL or MISCELLANEOUS FILL, start description with "FILL-" or "MISC-FILL-".	see notes in col. J
	0.0	1.5	CH				ASPHALT	
01	1.5	2.0	HA	HA	HAND AUGER	FULL	FILL-GRAY BROWN C-F SAND, SOME GRAVEL, TRACE SILT	PID = 1.5 PPM
02	2.0	4.0	HA	HA	HAND AUGER	FULL	MISC-FILL-GRAY BROWN C-F SAND, LITTLE GRAVEL, SILT, TRACE ASPHALT	PID = 0.7 PPM
03	4.0	6.0	HA	HA	HAND AUGER	FULL	SAME	PID = 1.0 PPM
04	6.0	8.0	MR	SS	6-16-23-22	11	MISC-FILL-GRAY BROWN C-F SAND, LITTLE GRAVEL, CONCRETE, BRICK, SILT	PID = 4.2 PPM
05	8.0	10.0	MR	SS	100-44-33-38	24	MISC-FILL-GRAY BROWN C-F SAND, SOME GRAVEL, CONCRETE, BRICK, LITTLE SILT	PID = 2.4 PPM
06	10.0	12.0	MR	SS	1-1-2-13	7	MISC-FILL-GRAY BROWN C-F SAND, SOME GRAVEL, CONCRETE, TRACE SILT	PID = 9.0 PPM
07	12.0	14.0	MR	SS	20-23-31-14	24	SAME	PID = 1.8 PPM
	15.0							Change of Strata
08	15.0	16.5	MR	SS	WOH-WOH-WOH	24	WHITE TO BLUE SILTY CLAY	PID = 9.1 PPM
	16.5							Change of Strata
09	17.5	19.0	MR	SS	WOH-WOH-WOH	6	BROWN BLACK PEAT	PID = 7.2 PPM
	19.0							BOTTOM OF BORING

NOTES

No blank fields in Start Depth column (or Column B) until end of boring. At which point, enter final depth and corresponding "BOTTOM OF BORING"

THE PORT AUTHORITY OF NY & NJ

Engineering Department
Materials Engineering Unit

Well Installation Report

PROJECT:	Port Ivory Sites 1 and 3 Well Installations	**CONTRACT NO.**	
LOCATION:	Site 1	**CONTRACTOR**	Craig Drilling
WELL NO.	PRW-7A	**WELL TYPE** A	**DATE:** 5/23/16
DRILLER:	M. Aquino	**INSPECTOR:**	J Kowalski

Well Development Report (NOTE: WATER LEVEL READINGS FROM TOP OF PVC)

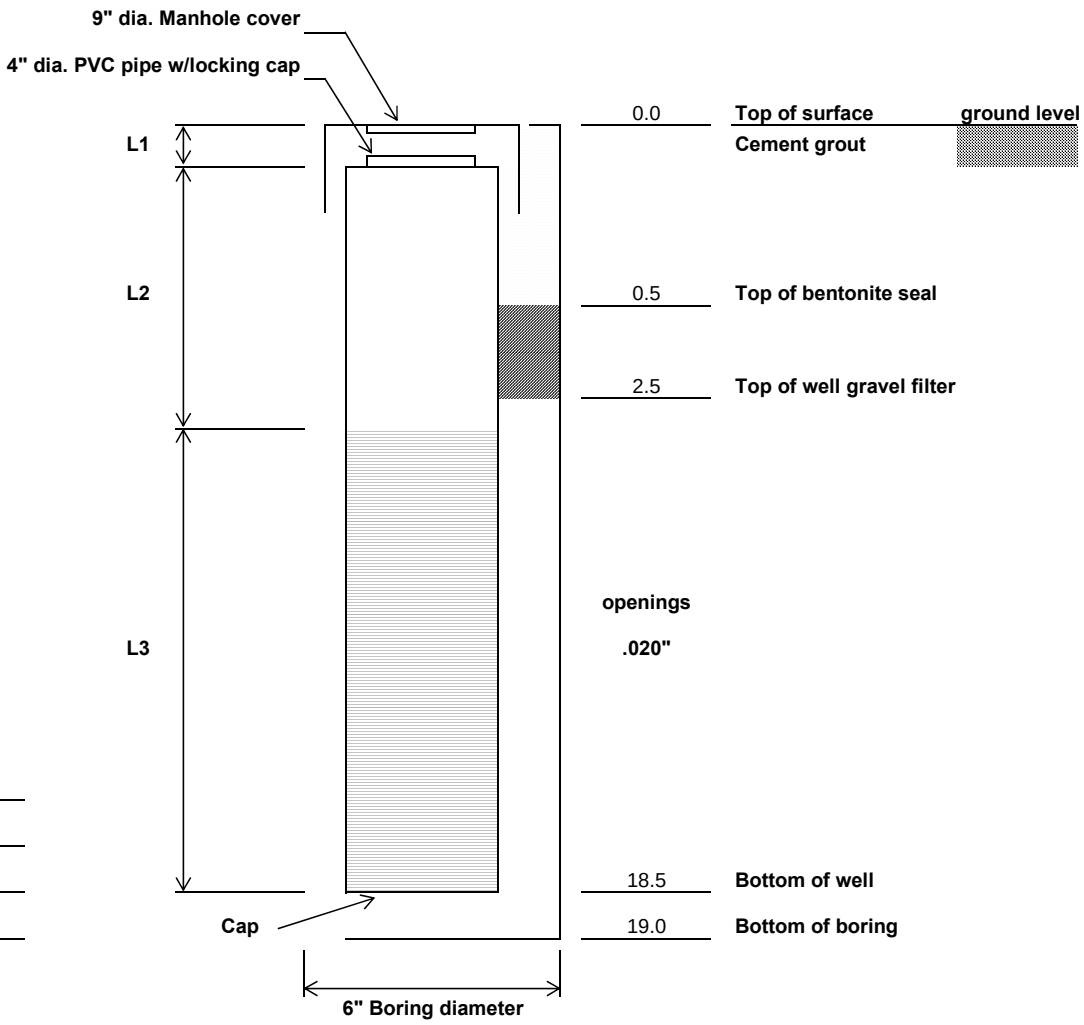
DATE:	**WATER LEVEL BEFORE:**	**WATER LEVEL AFTER:**
TAKEN	**MINUTES AFTER DEVELOPMENT**	

Stickup above ground= 0

L1 = 0.5

L2 = 8.0

L3 = 10.0



0.0	Top of surface ground level
	Cement grout
0.5	Top of bentonite seal
2.5	Top of well gravel filter
	openings .020"
18.5	Bottom of well
19.0	Bottom of boring

Remarks:

THE PORT AUTHORITY OF NY & NJ

Engineering Department Materials Engineering Unit

Boring Report

Boring No. PRW-7B

Port Ivory Sites 1 and 3 Well Installations

Date Start	6/7/2016
Date End	6/7/2016

Borehole Summary					
		Stabilized Water Depth (ft)	0.0	Depth to Top of ORGANICS (ft)	
Total FILL Thickness including MISC-FILL (ft)	14	Depth to BEDROCK (ft)		Depth to Bottom of ORGANICS (ft)	
MISC-FILL Thickness (ft)	6	Depth to DECOM ROCK (ft)		Thickness of ORGANICS (excluding non-organic lenses; eg sand)	

Sample No.	Start Depth	End Depth	Drilling Method	Sampler	Spoon Blows/6"	Re-cov'd	Sample Description	Remarks
Start with 01, 02, 03,..	see notes in col. J (ft)	(ft)			use * to indicate 300#/30in hammer used.	(in)	For FILL or MISCELLANEOUS FILL, start description with "FILL-" or "MISC-FILL-".	see notes in col. J
01	0.0	2.0	HA	HA	HAND AUGER	FULL	MISC-FILL-GRAY BROWN C-F SAND, LITTLE GRAVEL, BRICK, TRACE SILT	PID = 1.2 PPM
02A	2.0	3.0	HA	HA	HAND AUGER	FULL	SAME	PID = 1.1 PPM
	3.0							CHANGE OF STRATA
02B	3.0	4.0	HA	HA	HAND AUGER	FULL	MISC-FILL-WHITE GYPSUM	PID = 1.0 PPM
03	4.0	6.0	HA	HA	HAND AUGER	FULL	SAME	PID = 1.1 PPM
	6.0							CHANGE OF STRATA
04	6.0	8.0	MR	SS	1-1-2-1	8	FILL-BLACK TO GRAY C-F SAND, SOME CLAYEY SILT, TRACE GRAVEL	PID = 1.1 PPM
05	8.0	10.0	MR	SS	1-2-1-1	12	FILL-BLACK TO DARK GRAY C-F SAND, LITTLE SILT, TRACE GRAVEL	PID = 0.9 PPM
06	10.0	12.0	MR	SS	1-1-1-1	2	FILL-DARK GRAY GRAVEL, LITTLE C-F SAND	PID = 1.0 PPM
07	12.0	14.0	MR	SS	1-1-1-1	5	SAME	PID = 1.0 PPM
	14.0							CHANGE OF STRATA
08	15.0	17.0	MR	SS	1-2-2-1	12	DARK GRAY C-F SAND, SOME PEAT, TRACE GRAVEL	PID = 211 PPM
	17.0							BOTTOM OF BORING

NOTES

No blank fields in Start Depth column (or Column B) until end of boring. At which point, enter final depth and corresponding "BOTTOM OF BORING"

THE PORT AUTHORITY OF NY & NJ

Engineering Department
Materials Engineering Unit

Well Installation Report

PROJECT: Port Ivory Sites 1 and 3 Well Installations		**CONTRACT NO.**	
LOCATION: Site 1		**CONTRACTOR** Craig Drilling	
WELL NO. PRW-7B	**WELL TYPE** A	**DATE:** 6/7/16	
DRILLER: J. Craig	**INSPECTOR:** J. Kowalski		

Well Development Report (NOTE: WATER LEVEL READINGS FROM TOP OF PVC)

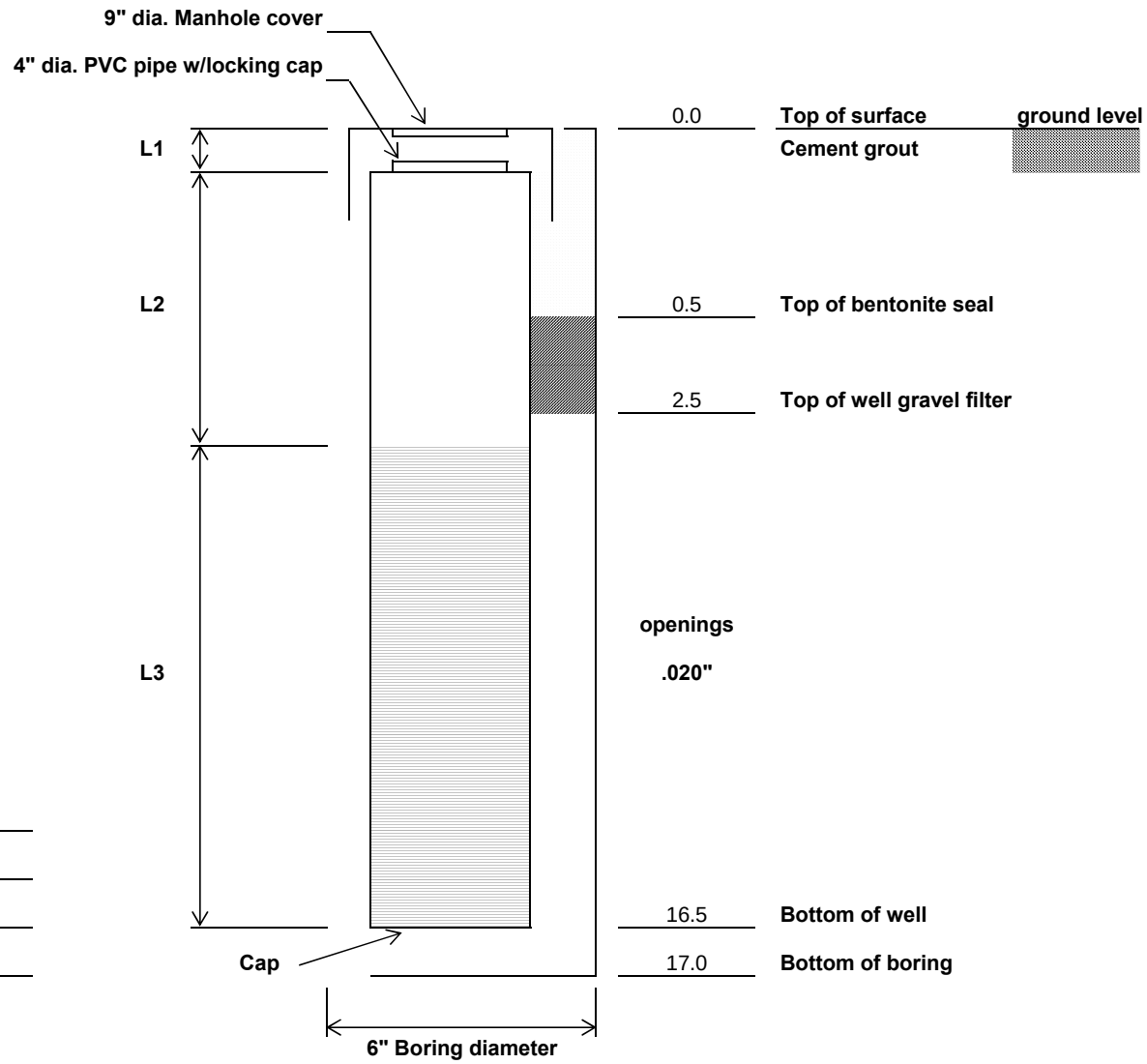
DATE:	**WATER LEVEL BEFORE:**	**WATER LEVEL AFTER:**
TAKEN	**MINUTES AFTER DEVELOPMENT**	

Stickup above ground= 0

L1 = 0.5

L2 = 6.0

L3 = 10.0



Remarks:

THE PORT AUTHORITY OF NY & NJ

Engineering Department Materials Engineering Unit

Boring Report

Boring No. PRW-7C

Port Ivory Sites 1 and 3 Well Installations

Date Start	5/19/2016
Date End	5/20/2016

Borehole Summary					
		Stabilized Water Depth (ft)	0.0	Depth to Top of ORGANICS (ft)	
Total FILL Thickness including MISC-FILL (ft)	7.5	Depth to BEDROCK (ft)		Depth to Bottom of ORGANICS (ft)	
MISC-FILL Thickness (ft)	5.5	Depth to DECOM ROCK (ft)		Thickness of ORGANICS (excluding non-organic lenses; eg sand)	

Sample No.	Start Depth	End Depth	Drilling Method	Sampler	Spoon Blows/6"	Re-cov'd	Sample Description	Remarks
Start with 01, 02, 03,..	see notes in col. J (ft)	(ft)			use * to indicate 300#/30in hammer used.	(in)	For FILL or MISCELLANEOUS FILL, start description with "FILL-" or "MISC-FILL-".	see notes in col. J
01	0.0	2.0	HA	HA	HAND AUGER	FULL	FILL-GRAY BROWN C-F SAND, LITTLE GRAVEL, TRACE SILT	PID = 0.5 PPM
02	2.0	4.0	HA	HA	HAND AUGER	FULL	MISC-FILL-GRAY BROWN C-F SAND, LITTLE SILT, TRACE GRAVEL, BRICK, CONCRETE	PID = 0.7 PPM
03	4.0	6.0	HA	HA	HAND AUGER	FULL	MISC-FILL-GRAY BROWN C-F SAND, SOME GRAVEL, LITTLE BRICK, CONCRETE, SILT	PID = 1.3 PPM
04A	6.0	7.5	MR	SS	4-7-9-9	10	SAME	PID = 2.4 PPM
	7.5							CHANGE OF STRATA
04B	7.5	8.0	MR	SS	4-7-9-9	10	GRAY C-F SAND, SOME CLAYEY SILT	PID = 2.1 PPM
05	8.0	10.0	MR	SS	14-8-13-12	2	GRAY BROWN C-F SAND, LITTLE SILT	PID = 1.7 PPM
	10.0							CHANGE OF STRATA
06	10.0	12.0	MR	SS	1-WOH-WOH-WOH	2	GRAY TO WHITE SILTY CLAY	PID = 3.4 PPM
07	12.0	14.0	MR	SS	WOH-WOH-WOH-WOH	2	SAME	PID = 2.3 PPM
08	15.0	16.5	MR	SS	WOH-WOH-WOH-WOH	8	SAME	PID = 4.2 PPM
09	17.5	18.0	MR	SS	3	2	SAME	PID = 3.2 PPM
	18.0							BOTTOM OF BORING

NOTES

No blank fields in Start Depth column (or Column B) until end of boring. At which point, enter final depth and corresponding "BOTTOM OF BORING"

THE PORT AUTHORITY OF NY & NJ

Engineering Department
Materials Engineering Unit

Well Installation Report

PROJECT: Port Ivory Sites 1 and 3 Well Installations		**CONTRACT NO.**	
LOCATION: Site 1		**CONTRACTOR** Craig Drilling	
WELL NO. PRW-7C	**WELL TYPE** A	**DATE:** 5/20/16	
DRILLER: M. Aquino		**INSPECTOR:** J. Kowalski	

Well Development Report (NOTE: WATER LEVEL READINGS FROM TOP OF PVC)

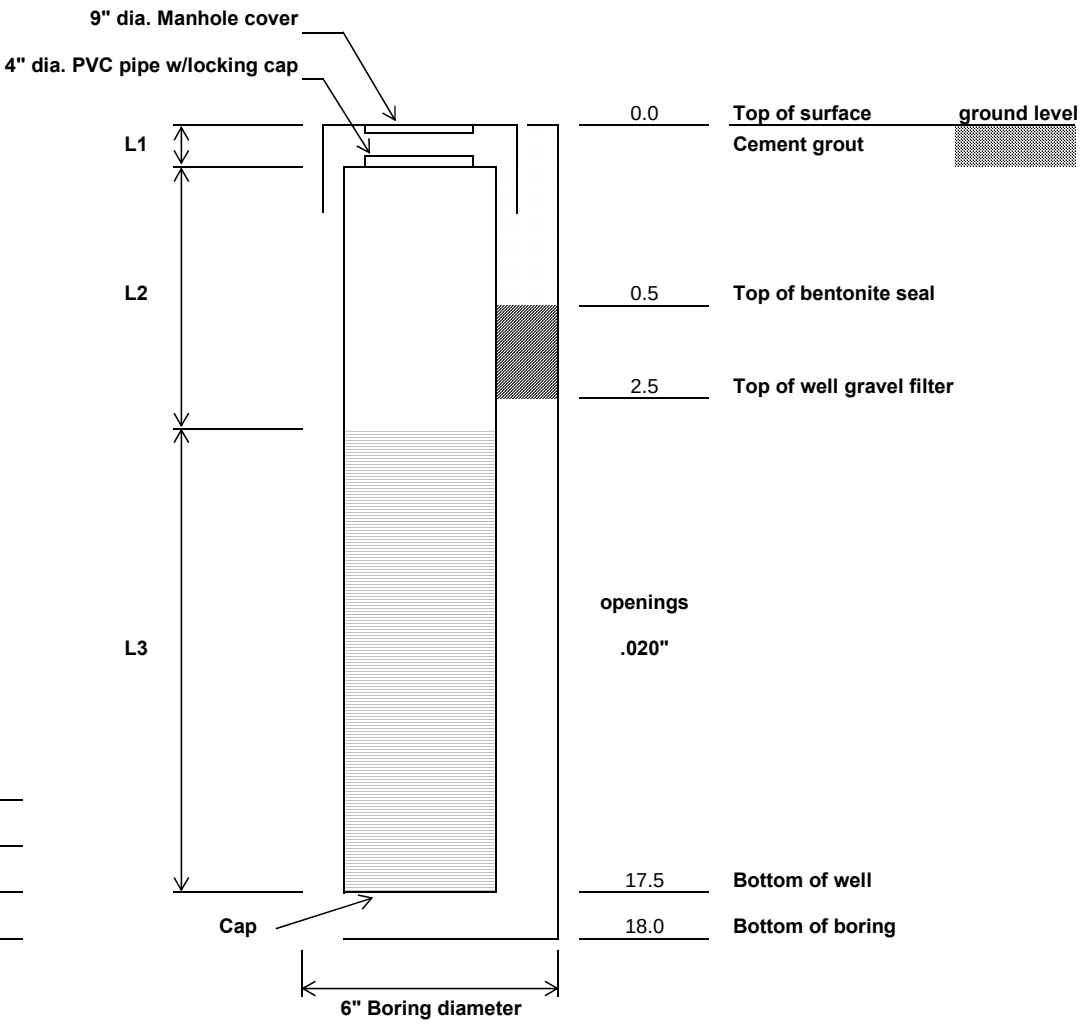
DATE:	**WATER LEVEL BEFORE:**	**WATER LEVEL AFTER:**
TAKEN	**MINUTES AFTER DEVELOPMENT**	

Stickup above ground= 0

L1 = 0.5

L2 = 7.0

L3 = 10.0



Remarks:

THE PORT AUTHORITY OF NY & NJ

Engineering Department Materials Engineering Unit

Boring Report

Boring No. PRW-7D

Port Ivory Sites 1 and 3 Well Installations

Date Start	6/7/2016
Date End	6/7/2016

Borehole Summary					
		Stabilized Water Depth (ft)	0.0	Depth to Top of ORGANICS (ft)	
Total FILL Thickness including MISC-FILL (ft)	8	Depth to BEDROCK (ft)		Depth to Bottom of ORGANICS (ft)	
MISC-FILL Thickness (ft)		Depth to DECOM ROCK (ft)		Thickness of ORGANICS (excluding non-organic lenses; eg sand)	

Sample No.	Start Depth	End Depth	Drilling Method	Sampler	Spoon Blows/6"	Re-cov'd	Sample Description	Remarks
Start with 01, 02, 03,..	see notes in col. J (ft)	(ft)			use * to indicate 300#/30in hammer used.	(in)	For FILL or MISCELLANEOUS FILL, start description with "FILL-" or "MISC-FILL-".	see notes in col. J
01	0.0	2.0	HA	HA	HAND AUGER	FULL	MISC-FILL-GRAY BROWN C-F SAND, LITTLE GRAVEL, TRACE SILT, WOOD FRAGMENTS	PID = 1.2 PPM
02	2.0	4.0	HA	HA	HAND AUGER	FULL	MISC-FILL-GRAY BROWN C-F SAND, SOME WHITE GYPSUM	PID = 0.9 PPM
03	4.0	6.0	HA	HA	HAND AUGER	FULL	MISC-FILL-GRAY BROWN C-F SAND, SOME WHITE GYSUM, LITTLE GRAVEL	PID = 0.9 PPM
04	6.0	8.0	MR	SS	1-1-2-1	5	FILL-GRAY BROWN C-F SAND, LITTLE GRAVEL, TRACE SILT	PID = 1.1 PPM
	8.0							CHANGE OF STRATA
05	8.0	10.0	MR	SS	1-2-1-1	12	DARK GRAY C-F SAND, LITTLE SILT, TRACE GRAVEL	PID = 0.7 PPM
06	10.0	12.0	MR	SS	1-2-1-2	10	SAME	PID = 0.7 PPM
07	12.0	14.0	MR	SS	2-1-1-1	12	DARK GRAY C-F SAND, LITTLE GRAVEL, SILT	PID = 1.4 PPM
08	14.0	16.0	MR	SS	2-3-1-2	12	BLACK TO DARK GRAY C-F SAND, SOME GRAVEL, LITTLE SILT	PID = 50.6 PPM
	16.0							BOTTOM OF BORING

NOTES

No blank fields in Start Depth column (or Column B) until end of boring. At which point, enter final depth and corresponding "BOTTOM OF BORING"

THE PORT AUTHORITY OF NY & NJ

Engineering Department
Materials Engineering Unit

Well Installation Report

PROJECT: Port Ivory Sites 1 and 3 Well Installations		**CONTRACT NO.**	
LOCATION: Site 1		**CONTRACTOR** Craig Drilling	
WELL NO. PRW-7D	**WELL TYPE** A	**DATE:** 6/7/16	
DRILLER: J. Craig		**INSPECTOR:** J. Kowalski	

Well Development Report (NOTE: WATER LEVEL READINGS FROM TOP OF PVC)

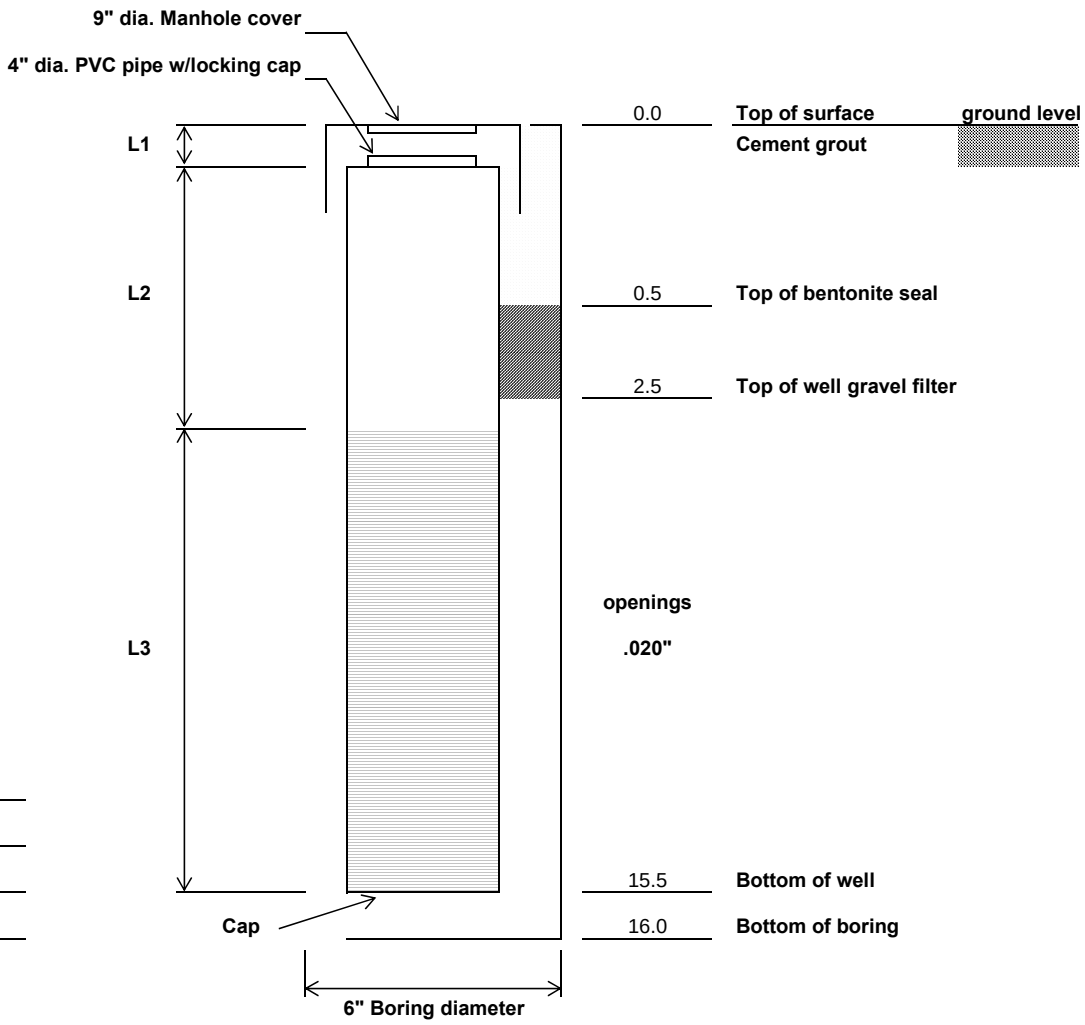
DATE:	**WATER LEVEL BEFORE:**	**WATER LEVEL AFTER:**
TAKEN	**MINUTES AFTER DEVELOPMENT**	

Stickup above ground= 0

L1 = 0.5

L2 = 5.0

L3 = 10.0



Remarks:

Attachment B
Groundwater and Surface Water Sampling Logs

EST Associates, Inc.

FIELD DATA SHEET

Client:	**Port Authority**	**EST Technician:**	**Z Rakebrand, M Spata**
Site:	**Port Ivory**	**Weather:**	**mid 80's, clear**
Date:	**7/27/2016**		

SW-6	
Surface Water ID	**SW-6**
Time of Sampling	10:06
Field Parameters	
pH at Sample	7.61
Temp. at Sample (^{o}C)	26.11
Cond. At Sample (umhos/cm)	29613
Diss. Oxygen at Sample (mg/L)	4.38
Redox Potential at Sample (mV)	-77.3
Salinity at Sample (ppt)	18.32

SW-7	
Surface Water ID	**SW-7**
Time of Sampling	8:55
Field Parameters	
pH at Sample	7.62
Temp. at Sample (^{o}C)	24.02
Cond. At Sample (umhos/cm)	29151
Diss. Oxygen at Sample (mg/L)	2.58
Redox Potential at Sample (mV)	-0.2
Salinity at Sample (ppt)	18.01

EST Associates, Inc.

LOW FLOW SAMPLING
FIELD DATA SHEETS

Client: Port Authority | **EST Technician:** Zachary Rakebrand

Site: Port Ivory | **Weather:** 80's clear

Date: 7/27/2016

Monitoring Well #: PRW-7 | **Well Depth:** 20.19 ft | **Screened/Open Interval:** NA ft

Well Permit #: NA | **Well Diameter:** 4 inches

PID Readings (ppm)

Background: 0.0 | **Pump Intake Depth:** 16.5 ft below TOC

Beneath Outer Cap: 0.0 | **Depth to Water Before Pump Installation:** 12.71 ft below TOC

Beneath Inner Cap: 7.5 | **Purge Method** stainless steel submersible pump

TIME	Purging	Sampling	pH (pH units) Reading	pH Change	Temperature (°C) Reading	Temperature Change	Specific Conductivity (uS/cm) Reading	Specific Conductivity Change	Dissolved Oxygen (mg/L) Reading	Dissolved Oxygen Change	Redox Potential (mV) Reading	Redox Potential Change	Turbidity (NTU) Reading	Turbidity Change	Pumping Rate (ml/min)	Depth to Water (ft below TOC)
12:10	x		8.47	NA	17.51	NA	2680	NA	0.07	NA	-249.8	NA	34.3	NA	200	12.68
12:15	x		8.45	-0.03	17.47	-0.04	2458	-222	0.00	-0.07	-282.4	-32.6	10.4	-23.9	200	12.70
12:20	x		8.46	0.02	17.53	0.06	2454	-4	0.00	0.00	-290.6	-8.2	9.89	-0.51	200	12.71
12:25	x		8.52	0.06	17.61	0.08	2403	-51	0.00	0.00	-322.7	-32.1	7.51	-2.38	200	12.72
12:30	x		8.53	0.01	17.80	0.19	2435	32	0.00	0.00	-325.8	-3.1	6.45	-1.06	200	12.74
12:35	x		8.57	0.04	17.65	-0.15	2430	-5	0.00	0.00	-336.2	-10.4	6.90	0.45	200	12.76
12:40	x		8.58	0.01	17.59	-0.06	2437	7	0.00	0.00	-338.9	-2.7	7.21	0.31	200	12.77
12:45	x		8.58	0.00	17.66	0.07	2440	3	0.00	0.00	-339.8	-0.9	7.17	-0.04	200	12.79
12:50		x	8.57	-0.01	17.49	-0.17	2405	-35	0.00	0.00	-343.7	-3.9	10.0	2.83	200	12.80

Purge Start: 12:04
Purge End: 12:45
Sample Time: 12:47

Sample notes: Water in well had a lot of bubbles/looked foamy.
strong odor.
2.5 gallons purged.

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mV for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

EST Associates, Inc.

LOW FLOW SAMPLING
FIELD DATA SHEETS

Client: Port Authority | **EST Technician:** Charles Bachmann

Site: Port Ivory | **Weather:** 80's clear

Date: 7/27/2016

Monitoring Well #: PRW-7A | **Well Depth:** 18.83 ft | **Screened/Open Interval:** NA ft

Well Permit #: NA | **Well Diameter:** 4 inches

PID Readings (ppm)

Background: 0.0 | **Pump Intake Depth:** 12.8 ft below TOC

Beneath Outer Cap: 0.0 | **Depth to Water Before Pump Installation:** 7.04 ft below TOC

Beneath Inner Cap: 19.8 | **Purge Method** stainless steel submersible pump

TIME	Purging	Sampling	pH (pH units) Reading	pH Change	Temperature (°C) Reading	Temperature Change	Specific Conductivity (uS/cm) Reading	Specific Conductivity Change	Dissolved Oxygen (mg/L) Reading	Dissolved Oxygen Change	Redox Potential (mV) Reading	Redox Potential Change	Turbidity (NTU) Reading	Turbidity Change	Pumping Rate (ml/min)	Depth to Water (ft below TOC)
12:00	x		12.43	NA	19.98	NA	10155	NA	0.17	NA	-310.4	NA	23.1	NA	260	7.16
12:05	x		12.47	0.04	20.13	0.15	10143	-12	0.12	-0.05	-314.6	-4.2	17.4	-5.7	260	7.16
12:10	x		12.41	-0.06	20.32	0.19	9723	-420	0.10	-0.02	-326.5	-11.9	13.6	-3.8	260	7.17
12:15	x		12.35	-0.06	20.48	0.16	9511	-212	0.11	0.01	-322.1	4.4	12.2	-1.4	260	7.17
12:20	x		12.29	-0.06	20.56	0.08	9279	-232	0.12	0.01	-319.6	2.5	9.74	-2.46	260	7.18
12:25	x		12.24	-0.05	20.67	0.11	9093	-186	0.11	-0.01	-319.9	-0.3	8.91	-0.83	260	7.18
12:30	x		12.15	-0.09	20.73	0.06	9012	-81	0.10	-0.01	-318.1	1.8	8.15	-0.76	260	7.18
12:35	x		12.11	-0.04	20.89	0.16	8976	-36	0.10	0.00	-318.4	-0.3	7.63	-0.52	260	7.18
12:40	x		12.10	-0.01	20.97	0.08	8951	-25	0.09	-0.01	-317.6	0.8	6.96	-0.67	260	7.19
12:45	x		12.09	-0.01	21.11	0.14	8943	-8	0.09	0.00	-317.1	0.5	6.92	-0.04	260	7.19
12:50	x		12.08	-0.01	21.19	0.08	8940	-3	0.10	0.01	-316.9	0.2	6.89	-0.03	260	7.19
12:55		x	12.08	0.00	21.24	0.05	8937	-3	0.12	0.02	-316.2	0.7	6.56	-0.33	260	7.20

Purge Start: 11:55
Purge End: 12:50
Sample Time: 12:52

Sample notes: Field blank at 1305.
3.5 gallons purged.

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mV for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

EST Associates, Inc.

LOW FLOW SAMPLING
FIELD DATA SHEETS

Client: Port Authority | **EST Technician:** Charles Bachmann
Site: Port Ivory | **Weather:** 80's clear
Date: 7/27/2016

Monitoring Well #: PRW-7B | **Well Depth:** 16.34 ft | **Screened/Open Interval:** NA ft
Well Permit #: NA | **Well Diameter:** 4 inches

PID Readings (ppm)
Background: 0.0 | **Pump Intake Depth:** 12.3 ft below TOC
Beneath Outer Cap: 0.0 | **Depth to Water Before Pump Installation:** 7.97 ft below TOC
Beneath Inner Cap: 35.0 | **Purge Method** stainless steel submersible pump

TIME	Purging	Sampling	pH (pH units) Reading	pH Change	Temperature (°C) Reading	Temperature Change	Specific Conductivity (uS/cm) Reading	Specific Conductivity Change	Dissolved Oxygen (mg/L) Reading	Dissolved Oxygen Change	Redox Potential (mV) Reading	Redox Potential Change	Turbidity (NTU) Reading	Turbidity Change	Pumping Rate (ml/min)	Depth to Water (ft below TOC)
10:55	x		6.86	NA	18.80	NA	2471	NA	1.19	NA	-148.7	NA	47.6	NA	250	8.12
11:00	x		6.84	-0.02	18.98	0.18	2463	-8	0.94	-0.25	-151.2	-2.5	41.3	-6.3	250	8.13
11:05	x		6.83	-0.01	19.05	0.07	2489	26	0.51	-0.43	-157.6	-6.4	34.7	-6.6	250	8.13
11:10	x		6.85	0.02	19.17	0.12	2473	-16	0.43	-0.08	-165.7	-8.1	21.6	-13.1	250	8.13
11:15	x		6.84	-0.01	19.32	0.15	2456	-17	0.35	-0.08	-169.2	-3.5	19.3	-2.3	250	8.13
11:20	x		6.83	-0.01	19.45	0.13	2441	-15	0.29	-0.06	-171.3	-2.1	18.4	-0.9	250	8.13
11:25	x		6.82	-0.01	19.61	0.16	2434	-7	0.21	-0.08	-175.6	-4.3	16.9	-1.5	250	8.13
11:30	x		6.83	0.01	19.79	0.18	2431	-3	0.19	-0.02	-176.2	-0.6	16.5	-0.4	250	8.14
11:35	x		6.83	0.00	19.88	0.09	2429	-2	0.17	-0.02	-176.8	-0.6	16.2	-0.3	250	8.14
11:40		x	6.82	-0.01	19.97	0.09	2427	-2	0.16	-0.01	-177.0	-0.2	15.8	-0.4	250	8.14

Purge Start: 10:50
Purge End: 11:35
Sample Time: 11:37

Sample notes: 3 gallons purged

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mV for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

EST Associates, Inc.

LOW FLOW SAMPLING
FIELD DATA SHEETS

Client:	Port Authority	**EST Technician:**	Mike Spata
Site:	Port Ivory	**Weather:**	80's clear
Date:	7/27/2016		

Monitoring Well #:	PRW-7C	**Well Depth:**	15.74 ft	**Screened/Open Interval:**	NA ft
Well Permit #:	NA	**Well Diameter:**	4 inches		

PID Readings (ppm)

Background:	0.0	**Pump Intake Depth:**	12.5 ft below TOC
Beneath Outer Cap:	0.0	**Depth to Water Before Pump Installation:**	7.21 ft below TOC
Beneath Inner Cap:	0.0	**Purge Method**	stainless steel submersible pump

TIME	Purging	Sampling	pH (pH units) Reading	pH Change	Temperature (°C) Reading	Temperature Change	Specific Conductivity (uS/cm) Reading	Specific Conductivity Change	Dissolved Oxygen (mg/L) Reading	Dissolved Oxygen Change	Redox Potential (mV) Reading	Redox Potential Change	Turbidity (NTU) Reading	Turbidity Change	Pumping Rate (ml/min)	Depth to Water (ft below TOC)
12:55	x		9.58	NA	20.35	NA	818	NA	0.32	NA	-162.4	NA	386	NA	200	7.24
13:00	x		9.68	0.10	20.07	-0.28	823	5	0.18	-0.14	-174.8	-12.4	300	-86	200	7.24
13:05	x		9.72	0.04	20.21	0.14	822	-1	0.08	-0.10	-179.7	-4.9	112	-188	200	7.24
13:10	x		9.75	0.03	20.06	-0.15	823	1	0.06	-0.02	-184.5	-4.8	54.3	-57.7	200	7.24
13:15	x		9.75	0.00	20.14	0.08	820	-3	0.05	-0.01	-187.3	-2.8	33.8	-20.5	200	7.24
13:20	x		9.75	0.00	20.36	0.22	819	-1	0.05	0.00	-189.1	-1.8	25.7	-8.1	200	7.24
13:25	x		9.77	0.02	20.03	-0.33	817	-2	0.05	0.00	-189.3	-0.2	19.1	-6.6	200	7.24
13:30	x		9.80	0.03	19.86	-0.17	817	0	0.04	-0.01	-191.2	-1.9	18.6	-0.5	200	7.24
13:35	x		9.81	0.01	19.79	-0.07	816	-1	0.04	0.00	-191.6	-0.4	17.8	-0.8	200	7.24
13:40		x	9.79	-0.02	19.94	0.15	820	4	0.04	0.00	-187.4	4.2	15.9	-1.9	200	7.24

Purge Start:	**12:46**
Purge End:	**13:35**
Sample Time:	**13:36**

Sample notes: 2.85 gallons purged.

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mV for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

EST Associates, Inc.

LOW FLOW SAMPLING
FIELD DATA SHEETS

Client: Port Authority | **EST Technician:** Zachary Rakebrand

Site: Port Ivory | **Weather:** 80's clear

Date: 7/27/2016

Monitoring Well #: PRW-7D | **Well Depth:** 17.93 ft | **Screened/Open Interval:** NA ft

Well Permit #: NA | **Well Diameter:** 4 inches

PID Readings (ppm)

Background: 0.0 | **Pump Intake Depth:** 13.8 ft below TOC

Beneath Outer Cap: 0.0 | **Depth to Water Before Pump Installation:** 9.17 ft below TOC

Beneath Inner Cap: 0.0 | **Purge Method** stainless steel submersible pump

TIME	Purging	Sampling	pH (pH units)		Temperature (°C)		Specific Conductivity (uS/cm)		Dissolved Oxygen (mg/L)		Redox Potential (mV)		Turbidity (NTU)		Pumping Rate (ml/min)	Depth to Water (ft below TOC)
			Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change		
11:00	x		7.18	NA	21.35	NA	1653	NA	0.71	NA	-119.9	NA	92.3	NA	200	9.20
11:05	x		7.12	-0.06	22.15	0.80	1699	46	0.51	-0.20	-123.1	-3.2	78.3	-14.0	200	9.22
11:10	x		7.08	-0.04	22.85	0.70	1710	11	0.43	-0.08	-118.1	5.0	71.7	-6.6	200	9.25
11:15	x		7.12	0.04	22.51	-0.34	1733	23	0.34	-0.09	-122.3	-4.2	53.2	-18.5	200	9.27
11:20	x		7.20	0.08	21.14	-1.37	1758	25	0.33	-0.01	-127.4	-5.1	41.5	-11.7	200	9.29
11:25	x		7.08	-0.12	20.93	-0.21	1773	15	0.17	-0.16	-118.0	9.4	32.7	-8.8	200	9.30
11:30	x		7.07	-0.01	20.98	0.05	1841	68	0.11	-0.06	-122.4	-4.4	24.8	-7.9	200	9.31
11:35	x		7.09	0.02	21.10	0.12	1844	3	0.10	-0.01	-124.1	-1.7	24.4	-0.4	200	9.31
11:40	x		7.13	0.04	21.14	0.04	1851	7	0.11	0.01	-125.4	-1.3	24.9	0.5	200	9.32
11:45		x	7.15	0.02	20.98	-0.16	1901	50	0.10	-0.01	-129.1	-3.7	23.7	-1.2	200	9.33

Purge Start: 10:55
Purge End: 11:40
Sample Time: 11:42

Sample notes: 3 gallons purged.

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mV for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

Attachment C
Laboratory Analytical Data Reports

ON CD

Attachment D
Data Usability Summary Report

ON CD

ATTACHMENT D – LABORATORY ANALYTICAL DATA REPORTS

ANALYTICAL REPORT

Lab Number:	L1610064
Client:	Port Authority of New York/New Jersey Four World Trade Center 150 Greenwich St - 20th Floor New York, NY 10007
ATTN:	Victoria Carley
Phone:	(212) 435-6109
Project Name:	PORT IVORY
Project Number:	P11955502
Report Date:	04/14/16

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1610064-01	PRW-02	WATER	STATEN ISLAND, NY	04/06/16 11:27	04/06/16
L1610064-02	PRW-06	WATER	STATEN ISLAND, NY	04/06/16 12:46	04/06/16
L1610064-03	PRW-01	WATER	STATEN ISLAND, NY	04/06/16 14:12	04/06/16
L1610064-04	FIELD BLANK	WATER	STATEN ISLAND, NY	04/06/16 10:30	04/06/16
L1610064-05	TRIP BLANK	WATER	STATEN ISLAND, NY	04/06/16 00:00	04/06/16
L1610064-06	SW-3	WATER	STATEN ISLAND, NY	04/06/16 15:30	04/06/16
L1610064-07	SW-2	WATER	STATEN ISLAND, NY	04/06/16 16:00	04/06/16
L1610064-08	SW-1	WATER	STATEN ISLAND, NY	04/06/16 16:30	04/06/16
L1610064-09	PRW-11	WATER	STATEN ISLAND, NY	04/06/16 10:07	04/06/16
L1610064-10	PRW-07	WATER	STATEN ISLAND, NY	04/06/16 11:17	04/06/16
L1610064-11	PRW-04	WATER	STATEN ISLAND, NY	04/06/16 13:07	04/06/16
L1610064-12	PRW-03	WATER	STATEN ISLAND, NY	04/06/16 14:22	04/06/16
L1610064-13	SW-4	WATER	STATEN ISLAND, NY	04/06/16 16:40	04/06/16
L1610064-14	SW-5	WATER	STATEN ISLAND, NY	04/06/16 15:40	04/06/16
L1610064-15	DUP-1	WATER	STATEN ISLAND, NY	04/06/16 00:00	04/06/16
L1610064-16	DUP-2	WATER	STATEN ISLAND, NY	04/06/16 00:00	04/06/16

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: PORT IVORY **Lab Number:** L1610064
Project Number: P11955502 **Report Date:** 04/14/16

Case Narrative (continued)

Report Submission
This is a partial report. A final report will be issued as soon as the results of all requested analyses become available.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt
L1610064-08: An aliquot of sample was taken from an unpreserved container and preserved appropriately for the analysis of Total Metals.

Volatile Organics
L1610064-01 through -12: The pH of the sample was less than two. It should be noted that 2-chloroethylvinyl ether breaks down under acidic conditions.
L1610064-03: The sample has elevated detection limits due to the dilution required by the sample matrix (foam).

Semivolatile Organics
L1610064-10: The sample has elevated detection limits due to the dilution required by the sample matrix.
The WG882200-2/-3 LCS/LCSD recoveries, associated with L1610064-01 through -04 and -06 through-16, are below the acceptance criteria for benzidine (0%/0%); however, it has been identified as a "difficult" analyte. The results of the associated samples are reported.
The WG882200-4/-5 MS/MSD recoveries, performed on L1610064-10, are below the acceptance criteria for benzidine (0%/0%) and 3,3'-dichlorobenzidine, due to the concentrations of these compounds falling below the reported detection limits.

Semivolatile Organics by SIM
L1610064-10: The sample has elevated detection limits due to the dilution required by the sample matrix.

Project Name: PORT IVORY **Lab Number:** L1610064
Project Number: P11955502 **Report Date:** 04/14/16

Case Narrative (continued)

Total Metals

L1610064-01, -02, -03, and -06 through -16: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.
The WG881522-4/-5 MS/MSD recoveries, performed on L1610064-10, are outside the acceptance criteria for antimony (12%/14%), arsenic (27%/34%), copper (6%/12%), selenium (27%/24%) and silver (5%/0%). A post digestion spike was performed and yielded unacceptable recoveries for selenium (70%) and silver (64%); all other compounds were within acceptance criteria. This has been attributed to sample matrix. In addition, the MS/MSD RPDs for arsenic (21%) and copper (78%) are above the acceptance criteria.
The WG881710-3/-4 MS/MSD recoveries, performed on L1610064-10, are outside the acceptance criteria for mercury (71%/72%). A post digestion spike was performed and was within acceptance criteria.

Dissolved Metals

L1610064-01, -02, -03, and -06 through -16: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.
The WG881520-4/-5 MS/MSD recoveries, performed on L1610064-10, are outside the acceptance criteria for antimony (52%/18%), arsenic (46%/46%), copper (28%/18%), selenium (0%/0%) and silver (9%/14%). A post digestion spike was performed and yielded unacceptable recoveries for antimony (135%), arsenic (132%), copper (132%), selenium (130%) and silver (51%). This has been attributed to sample matrix. In addition, the MS/MSD RPDs for antimony (99%), copper (43%) and silver (42%) are above the acceptance criteria.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Kelly Stenstrom

Title: Technical Director/Representative Date: 04/14/16

ORGANICS

VOLATILES

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-01
Client ID: PRW-02
Sample Location: STATEN ISLAND, NY

Date Collected: 04/06/16 11:27
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/10/16 15:49
Analyst: BS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-01
Client ID: PRW-02
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 11:27
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Acrolein	ND		ug/l	5.0	0.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	118		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	118		70-130
Dibromofluoromethane	93		70-130

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-02
Client ID: PRW-06
Sample Location: STATEN ISLAND, NY

Date Collected: 04/06/16 12:46
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/10/16 16:17
Analyst: BS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-02
Client ID: PRW-06
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 12:46
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Acrolein	ND		ug/l	5.0	0.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	118		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	117		70-130
Dibromofluoromethane	94		70-130

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-03 D
Client ID: PRW-01
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/10/16 16:45
Analyst: BS

Date Collected: 04/06/16 14:12
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	6.2	1.8	2.5
1,1-Dichloroethane	ND		ug/l	6.2	1.8	2.5
Chloroform	ND		ug/l	6.2	1.8	2.5
2-Chloroethylvinyl ether	ND		ug/l	25	1.8	2.5
Carbon tetrachloride	ND		ug/l	1.2	0.34	2.5
1,2-Dichloropropane	ND		ug/l	2.5	0.33	2.5
Dibromochloromethane	ND		ug/l	1.2	0.37	2.5
1,1,2-Trichloroethane	ND		ug/l	3.8	1.2	2.5
Tetrachloroethene	ND		ug/l	1.2	0.45	2.5
Chlorobenzene	ND		ug/l	6.2	1.8	2.5
1,2-Dichloroethane	ND		ug/l	1.2	0.33	2.5
1,1,1-Trichloroethane	ND		ug/l	6.2	1.8	2.5
Bromodichloromethane	ND		ug/l	1.2	0.48	2.5
trans-1,3-Dichloropropene	ND		ug/l	1.2	0.41	2.5
cis-1,3-Dichloropropene	ND		ug/l	1.2	0.36	2.5
1,3-Dichloropropene, Total	ND		ug/l	1.2	0.36	2.5
Bromoform	ND		ug/l	5.0	1.6	2.5
1,1,2,2-Tetrachloroethane	ND		ug/l	1.2	0.36	2.5
Benzene	ND		ug/l	1.2	0.40	2.5
Toluene	ND		ug/l	6.2	1.8	2.5
Ethylbenzene	ND		ug/l	6.2	1.8	2.5
Chloromethane	ND		ug/l	6.2	1.8	2.5
Bromomethane	ND		ug/l	6.2	1.8	2.5
Vinyl chloride	ND		ug/l	2.5	0.17	2.5
Chloroethane	ND		ug/l	6.2	1.8	2.5
1,1-Dichloroethene	ND		ug/l	1.2	0.36	2.5
trans-1,2-Dichloroethene	ND		ug/l	6.2	1.8	2.5
Trichloroethene	ND		ug/l	1.2	0.44	2.5
1,2-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-03 D
Client ID: PRW-01
Sample Location: STATEN ISLAND, NY

Date Collected: 04/06/16 14:12
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,4-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
Acrylonitrile	ND		ug/l	12	3.8	2.5
Acrolein	ND		ug/l	12	1.6	2.5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	116		70-130
Dibromofluoromethane	94		70-130

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-04
Client ID: FIELD BLANK
Sample Location: STATEN ISLAND, NY

Date Collected: 04/06/16 10:30
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/10/16 12:05
Analyst: BS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-04
Client ID: FIELD BLANK
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 10:30
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Acrolein	ND		ug/l	5.0	0.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	118		70-130
Dibromofluoromethane	94		70-130

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-05
Client ID: TRIP BLANK
Sample Location: STATEN ISLAND, NY
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/10/16 12:33
Analyst: BS

Date Collected: 04/06/16 00:00
Date Received: 04/06/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-05
Client ID: TRIP BLANK
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 00:00
Date Received: 04/06/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Acrolein	ND		ug/l	5.0	0.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	116		70-130
Dibromofluoromethane	93		70-130

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-06
Client ID: SW-3
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/10/16 17:13
Analyst: BS

Date Collected: 04/06/16 15:30
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-06
Client ID: SW-3
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 15:30
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Acrolein	ND		ug/l	5.0	0.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	122		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	117		70-130
Dibromofluoromethane	95		70-130

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-07
Client ID: SW-2
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/10/16 17:41
Analyst: BS

Date Collected: 04/06/16 16:00
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-07
Client ID: SW-2
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 16:00
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Acrolein	ND		ug/l	5.0	0.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	116		70-130
Dibromofluoromethane	93		70-130

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-08
Client ID: SW-1
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/10/16 18:09
Analyst: BS

Date Collected: 04/06/16 16:30
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-08
Client ID: SW-1
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 16:30
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Acrolein	ND		ug/l	5.0	0.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	117		70-130
Dibromofluoromethane	94		70-130

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-09
Client ID: PRW-11
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/10/16 18:37
Analyst: BS

Date Collected: 04/06/16 10:07
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-09
Client ID: PRW-11
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 10:07
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Acrolein	ND		ug/l	5.0	0.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	118		70-130
Dibromofluoromethane	93		70-130

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-10 D
Client ID: PRW-07
Sample Location: STATEN ISLAND, NY

Date Collected: 04/06/16 11:17
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/11/16 13:52
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2500	700	1000
1,1-Dichloroethane	ND		ug/l	2500	700	1000
Chloroform	ND		ug/l	2500	700	1000
2-Chloroethylvinyl ether	ND		ug/l	10000	700	1000
Carbon tetrachloride	ND		ug/l	500	130	1000
1,2-Dichloropropane	ND		ug/l	1000	130	1000
Dibromochloromethane	ND		ug/l	500	150	1000
1,1,2-Trichloroethane	ND		ug/l	1500	500	1000
Tetrachloroethene	ND		ug/l	500	180	1000
Chlorobenzene	ND		ug/l	2500	700	1000
1,2-Dichloroethane	ND		ug/l	500	130	1000
1,1,1-Trichloroethane	ND		ug/l	2500	700	1000
Bromodichloromethane	ND		ug/l	500	190	1000
trans-1,3-Dichloropropene	ND		ug/l	500	160	1000
cis-1,3-Dichloropropene	ND		ug/l	500	140	1000
1,3-Dichloropropene, Total	ND		ug/l	500	140	1000
Bromoform	ND		ug/l	2000	650	1000
1,1,2,2-Tetrachloroethane	ND		ug/l	500	140	1000
Benzene	ND		ug/l	500	160	1000
Toluene	84000		ug/l	2500	700	1000
Ethylbenzene	ND		ug/l	2500	700	1000
Chloromethane	ND		ug/l	2500	700	1000
Bromomethane	ND		ug/l	2500	700	1000
Vinyl chloride	ND		ug/l	1000	70.	1000
Chloroethane	ND		ug/l	2500	700	1000
1,1-Dichloroethene	ND		ug/l	500	140	1000
trans-1,2-Dichloroethene	ND		ug/l	2500	700	1000
Trichloroethene	ND		ug/l	500	180	1000
1,2-Dichlorobenzene	ND		ug/l	2500	700	1000

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-10 D
Client ID: PRW-07
Sample Location: STATEN ISLAND, NY

Date Collected: 04/06/16 11:17
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2500	700	1000
1,4-Dichlorobenzene	ND		ug/l	2500	700	1000
Acrylonitrile	ND		ug/l	5000	1500	1000
Acrolein	ND		ug/l	5000	630	1000

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	119		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	116		70-130
Dibromofluoromethane	95		70-130

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-11
Client ID: PRW-04
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/10/16 19:05
Analyst: BS

Date Collected: 04/06/16 13:07
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	62		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-11
Client ID: PRW-04
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 13:07
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Acrolein	ND		ug/l	5.0	0.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	117		70-130
Dibromofluoromethane	93		70-130

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-12
Client ID: PRW-03
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/10/16 19:33
Analyst: BS

Date Collected: 04/06/16 14:22
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	46		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-12
Client ID: PRW-03
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 14:22
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Acrolein	ND		ug/l	5.0	0.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	118		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	117		70-130
Dibromofluoromethane	94		70-130

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-13
Client ID: SW-4
Sample Location: STATEN ISLAND, NY

Date Collected: 04/06/16 16:40
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/11/16 14:20
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-13
Client ID: SW-4
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 16:40
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Acrolein	ND		ug/l	5.0	0.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	126		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	116		70-130
Dibromofluoromethane	95		70-130

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-14
Client ID: SW-5
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/11/16 14:48
Analyst: PD

Date Collected: 04/06/16 15:40
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-14
Client ID: SW-5
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 15:40
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Acrolein	ND		ug/l	5.0	0.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	129		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	116		70-130
Dibromofluoromethane	97		70-130

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-15
Client ID: DUP-1
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/11/16 15:17
Analyst: PD

Date Collected: 04/06/16 00:00
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-15
Client ID: DUP-1
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 00:00
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Acrolein	ND		ug/l	5.0	0.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	127		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	116		70-130
Dibromofluoromethane	96		70-130

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-16
Client ID: DUP-2
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/11/16 15:45
Analyst: PD

Date Collected: 04/06/16 00:00
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-16
Client ID: DUP-2
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 00:00
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Acrolein	ND		ug/l	5.0	0.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	128		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	115		70-130
Dibromofluoromethane	96		70-130

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/10/16 11:09
Analyst: BS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-09,11-12 Batch: WG882351-3					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
2-Chloroethylvinyl ether	ND		ug/l	10	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.13
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.14
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/10/16 11:09
Analyst: BS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-09,11-12 Batch: WG882351-3					
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Acrolein	ND		ug/l	5.0	0.63

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	118		70-130
Dibromofluoromethane	93		70-130

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/11/16 11:32
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 10,13-16 Batch: WG882674-3					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
2-Chloroethylvinyl ether	ND		ug/l	10	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.13
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.14
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/11/16 11:32
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 10,13-16 Batch: WG882674-3					
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Acrolein	ND		ug/l	5.0	0.63

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	118		70-130
Dibromofluoromethane	94		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09,11-12 Batch: WG882351-1 WG882351-2								
Methylene chloride	90		92		70-130	2		20
1,1-Dichloroethane	114		117		70-130	3		20
Chloroform	96		99		70-130	3		20
2-Chloroethylvinyl ether	**47**	Q	**58**	Q	70-130	**21**	Q	20
Carbon tetrachloride	90		92		63-132	2		20
1,2-Dichloropropane	105		109		70-130	4		20
Dibromochloromethane	84		86		63-130	2		20
1,1,2-Trichloroethane	92		95		70-130	3		20
Tetrachloroethene	77		79		70-130	3		20
Chlorobenzene	90		92		75-130	2		20
Trichlorofluoromethane	87		89		62-150	2		20
1,2-Dichloroethane	102		105		70-130	3		20
1,1,1-Trichloroethane	94		96		67-130	2		20
Bromodichloromethane	92		95		67-130	3		20
trans-1,3-Dichloropropene	91		96		70-130	5		20
cis-1,3-Dichloropropene	90		93		70-130	3		20
1,1-Dichloropropene	99		101		70-130	2		20
Bromoform	88		90		54-136	2		20
1,1,2,2-Tetrachloroethane	97		101		67-130	4		20
Benzene	97		99		70-130	2		20
Toluene	93		94		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: PORT IVORY

Project Number: P11955502

Lab Number: L1610064

Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09,11-12 Batch: WG882351-1 WG882351-2								
Ethylbenzene	99		100		70-130	1		20
Chloromethane	102		109		64-130	7		20
Bromomethane	57		58		39-139	2		20
Vinyl chloride	97		100		55-140	3		20
Chloroethane	106		108		55-138	2		20
1,1-Dichloroethene	86		87		61-145	1		20
trans-1,2-Dichloroethene	89		90		70-130	1		20
Trichloroethene	92		94		70-130	2		20
1,2-Dichlorobenzene	89		92		70-130	3		20
1,3-Dichlorobenzene	91		93		70-130	2		20
1,4-Dichlorobenzene	90		92		70-130	2		20
Methyl tert butyl ether	86		92		63-130	7		20
p/m-Xylene	96		97		70-130	1		20
o-Xylene	94		96		70-130	2		20
cis-1,2-Dichloroethene	88		90		70-130	2		20
Dibromomethane	84		87		70-130	4		20
1,2,3-Trichloropropane	107		112		64-130	5		20
Acrylonitrile	106		117		70-130	10		20
Isopropyl Ether	125		129		70-130	3		20
tert-Butyl Alcohol	107		118		70-130	10		20
Styrene	90		93		70-130	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: PORT IVORY

Project Number: P11955502

Lab Number: L1610064

Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09,11-12 Batch: WG882351-1 WG882351-2								
Dichlorodifluoromethane	85		87		36-147	2		20
Acetone	104		114		58-148	9		20
Carbon disulfide	91		93		51-130	2		20
2-Butanone	114		104		63-138	9		20
Vinyl acetate	106		114		70-130	7		20
4-Methyl-2-pentanone	84		92		59-130	9		20
2-Hexanone	100		108		57-130	8		20
Acrolein	89		96		40-160	8		20
Bromochloromethane	82		84		70-130	2		20
2,2-Dichloropropane	120		123		63-133	2		20
1,2-Dibromoethane	81		85		70-130	5		20
1,3-Dichloropropane	96		99		70-130	3		20
1,1,1,2-Tetrachloroethane	87		90		64-130	3		20
Bromobenzene	88		89		70-130	1		20
n-Butylbenzene	108		110		53-136	2		20
sec-Butylbenzene	103		104		70-130	1		20
tert-Butylbenzene	99		101		70-130	2		20
o-Chlorotoluene	118		116		70-130	2		20
p-Chlorotoluene	111		113		70-130	2		20
1,2-Dibromo-3-chloropropane	113		117		41-144	3		20
Hexachlorobutadiene	85		88		63-130	3		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09,11-12 Batch: WG882351-1 WG882351-2								
Isopropylbenzene	106		108		70-130	2		20
p-Isopropyltoluene	99		100		70-130	1		20
Naphthalene	77		83		70-130	8		20
n-Propylbenzene	110		112		69-130	2		20
1,2,3-Trichlorobenzene	70		77		70-130	10		20
1,2,4-Trichlorobenzene	77		83		70-130	8		20
1,3,5-Trimethylbenzene	106		107		64-130	1		20
1,2,4-Trimethylbenzene	105		107		70-130	2		20
Methyl Acetate	128		**138**	Q	70-130	8		20
Ethyl Acetate	104		107		70-130	3		20
Cyclohexane	109		112		70-130	3		20
Ethyl-Tert-Butyl-Ether	98		105		70-130	7		20
Tertiary-Amyl Methyl Ether	82		88		66-130	7		20
1,4-Dioxane	130		138		56-162	6		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	86		88		70-130	2		20
p-Diethylbenzene	100		101		70-130	1		20
p-Ethyltoluene	109		110		70-130	1		20
1,2,4,5-Tetramethylbenzene	100		102		70-130	2		20
Ethyl ether	86		90		59-134	5		20
trans-1,4-Dichloro-2-butene	92		98		70-130	6		20
Methyl cyclohexane	88		90		70-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: PORT IVORY

Project Number: P11955502

Lab Number: L1610064

Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits

Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09,11-12 Batch: WG882351-1 WG882351-2

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	110		113		70-130
Toluene-d8	107		106		70-130
4-Bromofluorobenzene	117		117		70-130
Dibromofluoromethane	95		97		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 10,13-16 Batch: WG882674-1 WG882674-2								
Methylene chloride	97		98		70-130	1		20
1,1-Dichloroethane	122		124		70-130	2		20
Chloroform	103		102		70-130	1		20
2-Chloroethylvinyl ether	90		92		70-130	2		20
Carbon tetrachloride	100		100		63-132	0		20
1,2-Dichloropropane	112		116		70-130	4		20
Dibromochloromethane	93		95		63-130	2		20
1,1,2-Trichloroethane	100		104		70-130	4		20
Tetrachloroethene	85		84		70-130	1		20
Chlorobenzene	95		96		75-130	1		20
Trichlorofluoromethane	98		99		62-150	1		20
1,2-Dichloroethane	111		115		70-130	4		20
1,1,1-Trichloroethane	102		103		67-130	1		20
Bromodichloromethane	100		102		67-130	2		20
trans-1,3-Dichloropropene	104		107		70-130	3		20
cis-1,3-Dichloropropene	101		104		70-130	3		20
1,1-Dichloropropene	109		109		70-130	0		20
Bromoform	96		98		54-136	2		20
1,1,2,2-Tetrachloroethane	106		110		67-130	4		20
Benzene	104		104		70-130	0		20
Toluene	98		98		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: PORT IVORY

Project Number: P11955502

Lab Number: L1610064

Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 10,13-16 Batch: WG882674-1 WG882674-2								
Ethylbenzene	105		105		70-130	0		20
Chloromethane	104		106		64-130	2		20
Bromomethane	61		60		39-139	2		20
Vinyl chloride	106		106		55-140	0		20
Chloroethane	113		111		55-138	2		20
1,1-Dichloroethene	94		94		61-145	0		20
trans-1,2-Dichloroethene	95		96		70-130	1		20
Trichloroethene	98		98		70-130	0		20
1,2-Dichlorobenzene	96		96		70-130	0		20
1,3-Dichlorobenzene	96		96		70-130	0		20
1,4-Dichlorobenzene	96		98		70-130	2		20
Methyl tert butyl ether	100		105		63-130	5		20
p/m-Xylene	101		101		70-130	0		20
o-Xylene	100		100		70-130	0		20
cis-1,2-Dichloroethene	95		96		70-130	1		20
Dibromomethane	93		98		70-130	5		20
1,2,3-Trichloropropane	118		121		64-130	3		20
Acrylonitrile	124		130		70-130	5		20
Isopropyl Ether	**136**	Q	**140**	Q	70-130	3		20
tert-Butyl Alcohol	**137**	Q	**147**	Q	70-130	7		20
Styrene	96		97		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: PORT IVORY

Project Number: P11955502

Lab Number: L1610064

Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 10,13-16 Batch: WG882674-1 WG882674-2								
Dichlorodifluoromethane	98		97		36-147	1		20
Acetone	116		120		58-148	3		20
Carbon disulfide	99		99		51-130	0		20
2-Butanone	116		**139**	Q	63-138	18		20
Vinyl acetate	**138**	Q	**143**	Q	70-130	4		20
4-Methyl-2-pentanone	97		105		59-130	8		20
2-Hexanone	118		127		57-130	7		20
Acrolein	104		110		40-160	6		20
Bromochloromethane	88		92		70-130	4		20
2,2-Dichloropropane	**140**	Q	**138**	Q	63-133	1		20
1,2-Dibromoethane	90		93		70-130	3		20
1,3-Dichloropropane	105		109		70-130	4		20
1,1,1,2-Tetrachloroethane	94		95		64-130	1		20
Bromobenzene	94		94		70-130	0		20
n-Butylbenzene	118		116		53-136	2		20
sec-Butylbenzene	111		109		70-130	2		20
tert-Butylbenzene	106		105		70-130	1		20
o-Chlorotoluene	119		119		70-130	0		20
p-Chlorotoluene	117		116		70-130	1		20
1,2-Dibromo-3-chloropropane	126		125		41-144	1		20
Hexachlorobutadiene	95		94		63-130	1		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 10,13-16 Batch: WG882674-1 WG882674-2								
Isopropylbenzene	111		110		70-130	1		20
p-Isopropyltoluene	107		106		70-130	1		20
Naphthalene	95		100		70-130	5		20
n-Propylbenzene	117		115		69-130	2		20
1,2,3-Trichlorobenzene	88		92		70-130	4		20
1,2,4-Trichlorobenzene	90		91		70-130	1		20
1,3,5-Trimethylbenzene	112		111		64-130	1		20
1,2,4-Trimethylbenzene	111		110		70-130	1		20
Methyl Acetate	**146**	Q	**159**	Q	70-130	9		20
Ethyl Acetate	121		127		70-130	5		20
Cyclohexane	123		125		70-130	2		20
Ethyl-Tert-Butyl-Ether	113		117		70-130	3		20
Tertiary-Amyl Methyl Ether	96		100		66-130	4		20
1,4-Dioxane	148		137		56-162	8		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	98		98		70-130	0		20
p-Diethylbenzene	108		106		70-130	2		20
p-Ethyltoluene	114		114		70-130	0		20
1,2,4,5-Tetramethylbenzene	109		109		70-130	0		20
Ethyl ether	99		100		59-134	1		20
trans-1,4-Dichloro-2-butene	112		116		70-130	4		20
Methyl cyclohexane	102		101		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: PORT IVORY

Project Number: P11955502

Lab Number: L1610064

Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 10,13-16 Batch: WG882674-1 WG882674-2								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	115		116		70-130
Toluene-d8	105		104		70-130
4-Bromofluorobenzene	117		117		70-130
Dibromofluoromethane	97		97		70-130

Matrix Spike Analysis
Batch Quality Control

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 10,13-16 QC Batch ID: WG882674-4 WG882674-5 QC Sample: L1610064-10 Client ID: PRW-07												
Methylene chloride	ND	10000	11000	111		11000	110		70-130	0		20
1,1-Dichloroethane	ND	10000	14000	**141**	Q	14000	**141**	Q	70-130	0		20
Chloroform	ND	10000	12000	118		12000	116		70-130	0		20
2-Chloroethylvinyl ether	ND	10000	11000	107		11000	106		70-130	0		20
Carbon tetrachloride	ND	10000	11000	112		12000	116		63-132	9		20
1,2-Dichloropropane	ND	10000	13000	**132**	Q	13000	**131**	Q	70-130	0		20
Dibromochloromethane	ND	10000	11000	108		11000	108		63-130	0		20
1,1,2-Trichloroethane	ND	10000	12000	121		12000	120		70-130	0		20
Tetrachloroethene	ND	10000	9200	92		9400	94		70-130	2		20
Chlorobenzene	ND	10000	11000	106		11000	109		75-130	0		20
Trichlorofluoromethane	ND	10000	11000	113		12000	117		62-150	9		20
1,2-Dichloroethane	ND	10000	13000	**134**	Q	13000	**131**	Q	70-130	0		20
1,1,1-Trichloroethane	ND	10000	12000	117		12000	118		67-130	0		20
Bromodichloromethane	ND	10000	12000	116		12000	117		67-130	0		20
trans-1,3-Dichloropropene	ND	10000	12000	120		12000	122		70-130	0		20
cis-1,3-Dichloropropene	ND	10000	12000	116		12000	116		70-130	0		20
1,1-Dichloropropene	ND	10000	12000	123		13000	126		70-130	8		20
Bromoform	ND	10000	11000	111		11000	111		54-136	0		20
1,1,2,2-Tetrachloroethane	ND	10000	13000	**132**	Q	13000	**132**	Q	67-130	0		20
Benzene	ND	10000	12000	117		12000	118		70-130	0		20
Toluene	84000	10000	93000	94		93000	90		70-130	0		20

Matrix Spike Analysis
Batch Quality Control

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 10,13-16 QC Batch ID: WG882674-4 WG882674-5 QC Sample: L1610064-10 Client ID: PRW-07												
Ethylbenzene	ND	10000	12000	116		12000	119		70-130	0		20
Chloromethane	ND	10000	12000	121		12000	119		64-130	0		20
Bromomethane	ND	10000	5400	54		5400	54		39-139	0		20
Vinyl chloride	ND	10000	12000	125		12000	125		55-140	0		20
Chloroethane	ND	10000	13000	129		12000	122		55-138	8		20
1,1-Dichloroethene	ND	10000	11000	107		11000	110		61-145	0		20
trans-1,2-Dichloroethene	ND	10000	11000	108		11000	109		70-130	0		20
Trichloroethene	ND	10000	11000	110		11000	112		70-130	0		20
1,2-Dichlorobenzene	ND	10000	11000	109		11000	109		70-130	0		20
1,3-Dichlorobenzene	ND	10000	11000	107		11000	109		70-130	0		20
1,4-Dichlorobenzene	ND	10000	11000	107		11000	108		70-130	0		20
Methyl tert butyl ether	ND	10000	12000	124		12000	122		63-130	0		20
p/m-Xylene	ND	20000	22000	111		22000	113		70-130	0		20
o-Xylene	ND	20000	22000	112		22000	113		70-130	0		20
cis-1,2-Dichloroethene	ND	10000	11000	106		11000	108		70-130	0		20
Dibromomethane	ND	10000	11000	112		11000	111		70-130	0		20
1,2,3-Trichloropropane	ND	10000	15000	**146**	Q	14000	**141**	Q	64-130	7		20
Acrylonitrile	ND	10000	16000	**155**	Q	16000	**158**	Q	70-130	0		20
Isopropyl Ether	ND	10000	16000	**165**	Q	16000	**164**	Q	70-130	0		20
tert-Butyl Alcohol	ND	50000	80000	**161**	Q	88000	**176**	Q	70-130	10		20
Styrene	ND	20000	22000	109		22000	110		70-130	0		20

Matrix Spike Analysis
Batch Quality Control

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 10,13-16 QC Batch ID: WG882674-4 WG882674-5 QC Sample: L1610064-10 Client ID: PRW-07												
Dichlorodifluoromethane	ND	10000	11000	106		11000	111		36-147	0		20
Acetone	ND	10000	14000	140		15000	147		58-148	7		20
Carbon disulfide	ND	10000	11000	111		11000	115		51-130	0		20
2-Butanone	ND	10000	15000	**153**	Q	15000	**155**	Q	63-138	0		20
Vinyl acetate	ND	10000	18000	**179**	Q	18000	**179**	Q	70-130	0		20
4-Methyl-2-pentanone	ND	10000	13000	**132**	Q	13000	**132**	Q	59-130	0		20
2-Hexanone	ND	10000	16000	**159**	Q	15000	**153**	Q	57-130	6		20
Acrolein	ND	10000	13000	131		13000	130		40-160	0		20
Bromochloromethane	ND	10000	10000	104		10000	103		70-130	0		20
2,2-Dichloropropane	ND	10000	15000	**148**	Q	15000	**147**	Q	63-133	0		20
1,2-Dibromoethane	ND	10000	11000	108		11000	108		70-130	0		20
1,3-Dichloropropane	ND	10000	13000	126		12000	126		70-130	8		20
1,1,1,2-Tetrachloroethane	ND	10000	10000	106		11000	106		64-130	10		20
Bromobenzene	ND	10000	10000	105		11000	106		70-130	10		20
n-Butylbenzene	ND	10000	13000	128		13000	132		53-136	0		20
sec-Butylbenzene	ND	10000	12000	122		13000	127		70-130	8		20
tert-Butylbenzene	ND	10000	12000	117		12000	120		70-130	0		20
o-Chlorotoluene	ND	10000	13000	**134**	Q	14000	**136**	Q	70-130	7		20
p-Chlorotoluene	ND	10000	13000	129		13000	130		70-130	0		20
1,2-Dibromo-3-chloropropane	ND	10000	14000	**145**	Q	15000	**147**	Q	41-144	7		20
Hexachlorobutadiene	ND	10000	8900	89		10000	103		63-130	12		20

Matrix Spike Analysis
Batch Quality Control

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 10,13-16 QC Batch ID: WG882674-4 WG882674-5 QC Sample: L1610064-10 Client ID: PRW-07												
Isopropylbenzene	ND	10000	12000	122		13000	126		70-130	8		20
p-Isopropyltoluene	ND	10000	12000	118		12000	121		70-130	0		20
Naphthalene	ND	10000	12000	122		13000	126		70-130	8		20
n-Propylbenzene	ND	10000	13000	129		13000	**135**	Q	69-130	0		20
1,2,3-Trichlorobenzene	ND	10000	11000	108		12000	115		70-130	9		20
1,2,4-Trichlorobenzene	ND	10000	10000	103		11000	106		70-130	10		20
1,3,5-Trimethylbenzene	ND	10000	12000	124		13000	126		64-130	8		20
1,2,4-Trimethylbenzene	ND	10000	12000	123		12000	124		70-130	0		20
Methyl Acetate	ND	10000	18000	**180**	Q	18000	**185**	Q	70-130	0		20
Ethyl Acetate	ND	10000	16000	**158**	Q	16000	**157**	Q	70-130	0		20
Cyclohexane	ND	10000	13000	**134**	Q	15000	**148**	Q	70-130	14		20
Ethyl-Tert-Butyl-Ether	ND	10000	14000	**138**	Q	14000	**137**	Q	70-130	0		20
Tertiary-Amyl Methyl Ether	ND	10000	12000	119		12000	118		66-130	0		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10000	10000	105		12000	115		70-130	18		20
p-Diethylbenzene	ND	10000	12000	118		12000	121		70-130	0		20
p-Ethyltoluene	ND	10000	13000	126		13000	130		70-130	0		20
1,2,4,5-Tetramethylbenzene	ND	10000	12000	120		12000	123		70-130	0		20
Ethyl ether	ND	10000	12000	119		12000	118		59-134	0		20
trans-1,4-Dichloro-2-butene	ND	10000	13000	**131**	Q	13000	130		70-130	0		20
Methyl cyclohexane	ND	10000	10000	105		12000	119		70-130	18		20

Matrix Spike Analysis
Batch Quality Control

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 10,13-16 QC Batch ID: WG882674-4 WG882674-5 QC Sample: L1610064-10 Client ID: PRW-07												

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	122		121		70-130
4-Bromofluorobenzene	119		122		70-130
Dibromofluoromethane	98		98		70-130
Toluene-d8	103		104		70-130

SEMIVOLATILES

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-01
Client ID: PRW-02
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/12/16 01:46
Analyst: PS

Date Collected: 04/06/16 11:27
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/10/16 21:43

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66	1
Benzidine	ND		ug/l	20	8.1	1
n-Nitrosodimethylamine	ND		ug/l	2.0	0.67	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4	1
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84	1
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1	1
Azobenzene	ND		ug/l	2.0	0.75	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63	1
Hexachlorocyclopentadiene	ND		ug/l	20	7.8	1
Isophorone	ND		ug/l	5.0	0.60	1
Nitrobenzene	ND		ug/l	2.0	0.75	1
NDPA/DPA	ND		ug/l	2.0	0.64	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	0.91	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.3	1
Di-n-butylphthalate	ND		ug/l	5.0	0.69	1
Di-n-octylphthalate	ND		ug/l	5.0	1.1	1
Diethyl phthalate	ND		ug/l	5.0	0.63	1
Dimethyl phthalate	ND		ug/l	5.0	0.65	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.62	1
2-Chlorophenol	ND		ug/l	2.0	0.63	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.77	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.6	1
2-Nitrophenol	ND		ug/l	10	1.5	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-01
Client ID: PRW-02
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 11:27
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
4-Nitrophenol	ND		ug/l	10	1.8	1
2,4-Dinitrophenol	ND		ug/l	20	5.5	1
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1	1
Phenol	ND		ug/l	5.0	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	51		21-120
Phenol-d6	37		10-120
Nitrobenzene-d5	91		23-120
2-Fluorobiphenyl	89		15-120
2,4,6-Tribromophenol	101		10-120
4-Terphenyl-d14	99		41-149

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-01
Client ID: PRW-02
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/13/16 19:24
Analyst: KV

Date Collected: 04/06/16 11:27
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)
Extraction Method: EPA 3510C
Extraction Date: 04/10/16 21:44

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.20	0.04	1
2-Chloronaphthalene	ND		ug/l	0.20	0.04	1
Fluoranthene	ND		ug/l	0.20	0.04	1
Hexachlorobutadiene	ND		ug/l	0.50	0.04	1
Naphthalene	ND		ug/l	0.20	0.04	1
Benzo(a)anthracene	ND		ug/l	0.20	0.02	1
Benzo(a)pyrene	ND		ug/l	0.20	0.04	1
Benzo(b)fluoranthene	ND		ug/l	0.20	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04	1
Chrysene	ND		ug/l	0.20	0.04	1
Acenaphthylene	ND		ug/l	0.20	0.04	1
Anthracene	ND		ug/l	0.20	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.20	0.04	1
Fluorene	ND		ug/l	0.20	0.04	1
Phenanthrene	ND		ug/l	0.20	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.20	0.04	1
Pyrene	ND		ug/l	0.20	0.04	1
Pentachlorophenol	ND		ug/l	0.80	0.22	1
Hexachlorobenzene	ND		ug/l	0.80	0.03	1
Hexachloroethane	ND		ug/l	0.80	0.03	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-01
Client ID: PRW-02
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 11:27
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	60		21-120
Phenol-d6	46		10-120
Nitrobenzene-d5	84		23-120
2-Fluorobiphenyl	93		15-120
2,4,6-Tribromophenol	**194**	Q	10-120
4-Terphenyl-d14	119		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-02
Client ID: PRW-06
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/12/16 02:11
Analyst: PS

Date Collected: 04/06/16 12:46
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)
Extraction Method: EPA 3510C
Extraction Date: 04/10/16 21:43

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66	1
Benzidine	ND		ug/l	20	8.1	1
n-Nitrosodimethylamine	ND		ug/l	2.0	0.67	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4	1
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84	1
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1	1
Azobenzene	ND		ug/l	2.0	0.75	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63	1
Hexachlorocyclopentadiene	ND		ug/l	20	7.8	1
Isophorone	ND		ug/l	5.0	0.60	1
Nitrobenzene	ND		ug/l	2.0	0.75	1
NDPA/DPA	ND		ug/l	2.0	0.64	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	0.91	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.3	1
Di-n-butylphthalate	ND		ug/l	5.0	0.69	1
Di-n-octylphthalate	ND		ug/l	5.0	1.1	1
Diethyl phthalate	ND		ug/l	5.0	0.63	1
Dimethyl phthalate	ND		ug/l	5.0	0.65	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.62	1
2-Chlorophenol	ND		ug/l	2.0	0.63	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.77	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.6	1
2-Nitrophenol	ND		ug/l	10	1.5	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-02
Client ID: PRW-06
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 12:46
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
4-Nitrophenol	ND		ug/l	10	1.8	1
2,4-Dinitrophenol	ND		ug/l	20	5.5	1
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1	1
Phenol	ND		ug/l	5.0	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	48		21-120
Phenol-d6	34		10-120
Nitrobenzene-d5	84		23-120
2-Fluorobiphenyl	85		15-120
2,4,6-Tribromophenol	83		10-120
4-Terphenyl-d14	89		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-02
Client ID: PRW-06
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/13/16 19:53
Analyst: KV

Date Collected: 04/06/16 12:46
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/10/16 21:44

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.20	0.04	1
2-Chloronaphthalene	ND		ug/l	0.20	0.04	1
Fluoranthene	ND		ug/l	0.20	0.04	1
Hexachlorobutadiene	ND		ug/l	0.50	0.04	1
Naphthalene	ND		ug/l	0.20	0.04	1
Benzo(a)anthracene	ND		ug/l	0.20	0.02	1
Benzo(a)pyrene	ND		ug/l	0.20	0.04	1
Benzo(b)fluoranthene	ND		ug/l	0.20	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04	1
Chrysene	ND		ug/l	0.20	0.04	1
Acenaphthylene	ND		ug/l	0.20	0.04	1
Anthracene	ND		ug/l	0.20	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.20	0.04	1
Fluorene	ND		ug/l	0.20	0.04	1
Phenanthrene	ND		ug/l	0.20	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.20	0.04	1
Pyrene	ND		ug/l	0.20	0.04	1
Pentachlorophenol	ND		ug/l	0.80	0.22	1
Hexachlorobenzene	ND		ug/l	0.80	0.03	1
Hexachloroethane	ND		ug/l	0.80	0.03	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-02
Client ID: PRW-06
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 12:46
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	63		21-120
Phenol-d6	47		10-120
Nitrobenzene-d5	89		23-120
2-Fluorobiphenyl	93		15-120
2,4,6-Tribromophenol	**171**	Q	10-120
4-Terphenyl-d14	110		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-03
Client ID: PRW-01
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/12/16 02:36
Analyst: PS

Date Collected: 04/06/16 14:12
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/10/16 21:43

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66	1
Benzidine	ND		ug/l	20	8.1	1
n-Nitrosodimethylamine	ND		ug/l	2.0	0.67	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4	1
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84	1
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1	1
Azobenzene	ND		ug/l	2.0	0.75	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63	1
Hexachlorocyclopentadiene	ND		ug/l	20	7.8	1
Isophorone	ND		ug/l	5.0	0.60	1
Nitrobenzene	ND		ug/l	2.0	0.75	1
NDPA/DPA	ND		ug/l	2.0	0.64	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	0.91	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.3	1
Di-n-butylphthalate	ND		ug/l	5.0	0.69	1
Di-n-octylphthalate	ND		ug/l	5.0	1.1	1
Diethyl phthalate	ND		ug/l	5.0	0.63	1
Dimethyl phthalate	ND		ug/l	5.0	0.65	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.62	1
2-Chlorophenol	ND		ug/l	2.0	0.63	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.77	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.6	1
2-Nitrophenol	ND		ug/l	10	1.5	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-03
Client ID: PRW-01
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 14:12
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
4-Nitrophenol	ND		ug/l	10	1.8	1
2,4-Dinitrophenol	ND		ug/l	20	5.5	1
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1	1
Phenol	ND		ug/l	5.0	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	47		21-120
Phenol-d6	33		10-120
Nitrobenzene-d5	80		23-120
2-Fluorobiphenyl	75		15-120
2,4,6-Tribromophenol	86		10-120
4-Terphenyl-d14	80		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-03
Client ID: PRW-01
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/13/16 20:23
Analyst: KV

Date Collected: 04/06/16 14:12
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/10/16 21:44

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.78		ug/l	0.20	0.04	1
2-Chloronaphthalene	ND		ug/l	0.20	0.04	1
Fluoranthene	ND		ug/l	0.20	0.04	1
Hexachlorobutadiene	ND		ug/l	0.50	0.04	1
Naphthalene	ND		ug/l	0.20	0.04	1
Benzo(a)anthracene	ND		ug/l	0.20	0.02	1
Benzo(a)pyrene	ND		ug/l	0.20	0.04	1
Benzo(b)fluoranthene	ND		ug/l	0.20	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04	1
Chrysene	ND		ug/l	0.20	0.04	1
Acenaphthylene	ND		ug/l	0.20	0.04	1
Anthracene	0.27		ug/l	0.20	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.20	0.04	1
Fluorene	0.34		ug/l	0.20	0.04	1
Phenanthrene	ND		ug/l	0.20	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.20	0.04	1
Pyrene	0.43		ug/l	0.20	0.04	1
Pentachlorophenol	ND		ug/l	0.80	0.22	1
Hexachlorobenzene	ND		ug/l	0.80	0.03	1
Hexachloroethane	ND		ug/l	0.80	0.03	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-03
Client ID: PRW-01
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 14:12
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	64		21-120
Phenol-d6	50		10-120
Nitrobenzene-d5	88		23-120
2-Fluorobiphenyl	88		15-120
2,4,6-Tribromophenol	**176**	Q	10-120
4-Terphenyl-d14	115		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-04
Client ID: FIELD BLANK
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/12/16 03:02
Analyst: PS

Date Collected: 04/06/16 10:30
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/10/16 21:43

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66	1
Benzidine	ND		ug/l	20	8.1	1
n-Nitrosodimethylamine	ND		ug/l	2.0	0.67	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4	1
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84	1
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1	1
Azobenzene	ND		ug/l	2.0	0.75	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63	1
Hexachlorocyclopentadiene	ND		ug/l	20	7.8	1
Isophorone	ND		ug/l	5.0	0.60	1
Nitrobenzene	ND		ug/l	2.0	0.75	1
NDPA/DPA	ND		ug/l	2.0	0.64	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	0.91	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.3	1
Di-n-butylphthalate	ND		ug/l	5.0	0.69	1
Di-n-octylphthalate	ND		ug/l	5.0	1.1	1
Diethyl phthalate	ND		ug/l	5.0	0.63	1
Dimethyl phthalate	ND		ug/l	5.0	0.65	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.62	1
2-Chlorophenol	ND		ug/l	2.0	0.63	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.77	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.6	1
2-Nitrophenol	ND		ug/l	10	1.5	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-04
Client ID: FIELD BLANK
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 10:30
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
4-Nitrophenol	ND		ug/l	10	1.8	1
2,4-Dinitrophenol	ND		ug/l	20	5.5	1
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1	1
Phenol	ND		ug/l	5.0	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	43		21-120
Phenol-d6	31		10-120
Nitrobenzene-d5	75		23-120
2-Fluorobiphenyl	73		15-120
2,4,6-Tribromophenol	83		10-120
4-Terphenyl-d14	89		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-04
Client ID: FIELD BLANK
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/13/16 20:53
Analyst: KV

Date Collected: 04/06/16 10:30
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/10/16 21:44

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.20	0.04	1
2-Chloronaphthalene	ND		ug/l	0.20	0.04	1
Fluoranthene	ND		ug/l	0.20	0.04	1
Hexachlorobutadiene	ND		ug/l	0.50	0.04	1
Naphthalene	ND		ug/l	0.20	0.04	1
Benzo(a)anthracene	ND		ug/l	0.20	0.02	1
Benzo(a)pyrene	ND		ug/l	0.20	0.04	1
Benzo(b)fluoranthene	ND		ug/l	0.20	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04	1
Chrysene	ND		ug/l	0.20	0.04	1
Acenaphthylene	ND		ug/l	0.20	0.04	1
Anthracene	ND		ug/l	0.20	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.20	0.04	1
Fluorene	ND		ug/l	0.20	0.04	1
Phenanthrene	ND		ug/l	0.20	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.20	0.04	1
Pyrene	ND		ug/l	0.20	0.04	1
Pentachlorophenol	ND		ug/l	0.80	0.22	1
Hexachlorobenzene	ND		ug/l	0.80	0.03	1
Hexachloroethane	ND		ug/l	0.80	0.03	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-04
Client ID: FIELD BLANK
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 10:30
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	58		21-120
Phenol-d6	45		10-120
Nitrobenzene-d5	84		23-120
2-Fluorobiphenyl	85		15-120
2,4,6-Tribromophenol	**164**	Q	10-120
4-Terphenyl-d14	112		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-06
Client ID: SW-3
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/12/16 03:27
Analyst: PS

Date Collected: 04/06/16 15:30
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)
Extraction Method: EPA 3510C
Extraction Date: 04/10/16 21:43

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66	1
Benzidine	ND		ug/l	20	8.1	1
n-Nitrosodimethylamine	ND		ug/l	2.0	0.67	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4	1
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84	1
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1	1
Azobenzene	ND		ug/l	2.0	0.75	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63	1
Hexachlorocyclopentadiene	ND		ug/l	20	7.8	1
Isophorone	ND		ug/l	5.0	0.60	1
Nitrobenzene	ND		ug/l	2.0	0.75	1
NDPA/DPA	ND		ug/l	2.0	0.64	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	0.91	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.3	1
Di-n-butylphthalate	ND		ug/l	5.0	0.69	1
Di-n-octylphthalate	ND		ug/l	5.0	1.1	1
Diethyl phthalate	ND		ug/l	5.0	0.63	1
Dimethyl phthalate	ND		ug/l	5.0	0.65	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.62	1
2-Chlorophenol	ND		ug/l	2.0	0.63	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.77	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.6	1
2-Nitrophenol	ND		ug/l	10	1.5	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-06
Client ID: SW-3
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 15:30
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
4-Nitrophenol	ND		ug/l	10	1.8	1
2,4-Dinitrophenol	ND		ug/l	20	5.5	1
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1	1
Phenol	ND		ug/l	5.0	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	41		21-120
Phenol-d6	31		10-120
Nitrobenzene-d5	66		23-120
2-Fluorobiphenyl	73		15-120
2,4,6-Tribromophenol	84		10-120
4-Terphenyl-d14	88		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-06
Client ID: SW-3
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/13/16 21:22
Analyst: KV

Date Collected: 04/06/16 15:30
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/10/16 21:44

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.10	J	ug/l	0.20	0.04	1
2-Chloronaphthalene	ND		ug/l	0.20	0.04	1
Fluoranthene	ND		ug/l	0.20	0.04	1
Hexachlorobutadiene	ND		ug/l	0.50	0.04	1
Naphthalene	ND		ug/l	0.20	0.04	1
Benzo(a)anthracene	ND		ug/l	0.20	0.02	1
Benzo(a)pyrene	ND		ug/l	0.20	0.04	1
Benzo(b)fluoranthene	ND		ug/l	0.20	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04	1
Chrysene	ND		ug/l	0.20	0.04	1
Acenaphthylene	ND		ug/l	0.20	0.04	1
Anthracene	ND		ug/l	0.20	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.20	0.04	1
Fluorene	ND		ug/l	0.20	0.04	1
Phenanthrene	ND		ug/l	0.20	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.20	0.04	1
Pyrene	ND		ug/l	0.20	0.04	1
Pentachlorophenol	ND		ug/l	0.80	0.22	1
Hexachlorobenzene	ND		ug/l	0.80	0.03	1
Hexachloroethane	ND		ug/l	0.80	0.03	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-06
Client ID: SW-3
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 15:30
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	50		21-120
Phenol-d6	42		10-120
Nitrobenzene-d5	71		23-120
2-Fluorobiphenyl	78		15-120
2,4,6-Tribromophenol	**166**	Q	10-120
4-Terphenyl-d14	107		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-07
Client ID: SW-2
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/12/16 03:53
Analyst: PS

Date Collected: 04/06/16 16:00
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/10/16 21:43

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66	1
Benzidine	ND		ug/l	20	8.1	1
n-Nitrosodimethylamine	ND		ug/l	2.0	0.67	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4	1
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84	1
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1	1
Azobenzene	ND		ug/l	2.0	0.75	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63	1
Hexachlorocyclopentadiene	ND		ug/l	20	7.8	1
Isophorone	ND		ug/l	5.0	0.60	1
Nitrobenzene	ND		ug/l	2.0	0.75	1
NDPA/DPA	ND		ug/l	2.0	0.64	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	0.91	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.3	1
Di-n-butylphthalate	ND		ug/l	5.0	0.69	1
Di-n-octylphthalate	ND		ug/l	5.0	1.1	1
Diethyl phthalate	ND		ug/l	5.0	0.63	1
Dimethyl phthalate	ND		ug/l	5.0	0.65	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.62	1
2-Chlorophenol	ND		ug/l	2.0	0.63	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.77	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.6	1
2-Nitrophenol	ND		ug/l	10	1.5	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-07
Client ID: SW-2
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 16:00
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
4-Nitrophenol	ND		ug/l	10	1.8	1
2,4-Dinitrophenol	ND		ug/l	20	5.5	1
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1	1
Phenol	ND		ug/l	5.0	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	47		21-120
Phenol-d6	34		10-120
Nitrobenzene-d5	82		23-120
2-Fluorobiphenyl	77		15-120
2,4,6-Tribromophenol	92		10-120
4-Terphenyl-d14	95		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-07
Client ID: SW-2
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/13/16 21:52
Analyst: KV

Date Collected: 04/06/16 16:00
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/10/16 21:44

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.20	0.04	1
2-Chloronaphthalene	ND		ug/l	0.20	0.04	1
Fluoranthene	ND		ug/l	0.20	0.04	1
Hexachlorobutadiene	ND		ug/l	0.50	0.04	1
Naphthalene	ND		ug/l	0.20	0.04	1
Benzo(a)anthracene	ND		ug/l	0.20	0.02	1
Benzo(a)pyrene	ND		ug/l	0.20	0.04	1
Benzo(b)fluoranthene	ND		ug/l	0.20	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04	1
Chrysene	ND		ug/l	0.20	0.04	1
Acenaphthylene	ND		ug/l	0.20	0.04	1
Anthracene	ND		ug/l	0.20	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.20	0.04	1
Fluorene	ND		ug/l	0.20	0.04	1
Phenanthrene	ND		ug/l	0.20	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.20	0.04	1
Pyrene	ND		ug/l	0.20	0.04	1
Pentachlorophenol	ND		ug/l	0.80	0.22	1
Hexachlorobenzene	ND		ug/l	0.80	0.03	1
Hexachloroethane	ND		ug/l	0.80	0.03	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-07
Client ID: SW-2
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 16:00
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	62		21-120
Phenol-d6	49		10-120
Nitrobenzene-d5	91		23-120
2-Fluorobiphenyl	93		15-120
2,4,6-Tribromophenol	**184**	Q	10-120
4-Terphenyl-d14	125		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-08
Client ID: SW-1
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/12/16 04:18
Analyst: PS

Date Collected: 04/06/16 16:30
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/10/16 21:43

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66	1
Benzidine	ND		ug/l	20	8.1	1
n-Nitrosodimethylamine	ND		ug/l	2.0	0.67	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4	1
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84	1
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1	1
Azobenzene	ND		ug/l	2.0	0.75	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63	1
Hexachlorocyclopentadiene	ND		ug/l	20	7.8	1
Isophorone	ND		ug/l	5.0	0.60	1
Nitrobenzene	ND		ug/l	2.0	0.75	1
NDPA/DPA	ND		ug/l	2.0	0.64	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	0.91	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.3	1
Di-n-butylphthalate	ND		ug/l	5.0	0.69	1
Di-n-octylphthalate	ND		ug/l	5.0	1.1	1
Diethyl phthalate	ND		ug/l	5.0	0.63	1
Dimethyl phthalate	ND		ug/l	5.0	0.65	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.62	1
2-Chlorophenol	ND		ug/l	2.0	0.63	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.77	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.6	1
2-Nitrophenol	ND		ug/l	10	1.5	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-08
Client ID: SW-1
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 16:30
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
4-Nitrophenol	ND		ug/l	10	1.8	1
2,4-Dinitrophenol	ND		ug/l	20	5.5	1
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1	1
Phenol	ND		ug/l	5.0	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	46		21-120
Phenol-d6	32		10-120
Nitrobenzene-d5	81		23-120
2-Fluorobiphenyl	75		15-120
2,4,6-Tribromophenol	86		10-120
4-Terphenyl-d14	89		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-08
Client ID: SW-1
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/13/16 22:22
Analyst: KV

Date Collected: 04/06/16 16:30
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/10/16 21:44

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.20	0.04	1
2-Chloronaphthalene	ND		ug/l	0.20	0.04	1
Fluoranthene	ND		ug/l	0.20	0.04	1
Hexachlorobutadiene	ND		ug/l	0.50	0.04	1
Naphthalene	ND		ug/l	0.20	0.04	1
Benzo(a)anthracene	ND		ug/l	0.20	0.02	1
Benzo(a)pyrene	ND		ug/l	0.20	0.04	1
Benzo(b)fluoranthene	ND		ug/l	0.20	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04	1
Chrysene	ND		ug/l	0.20	0.04	1
Acenaphthylene	ND		ug/l	0.20	0.04	1
Anthracene	ND		ug/l	0.20	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.20	0.04	1
Fluorene	ND		ug/l	0.20	0.04	1
Phenanthrene	ND		ug/l	0.20	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.20	0.04	1
Pyrene	ND		ug/l	0.20	0.04	1
Pentachlorophenol	ND		ug/l	0.80	0.22	1
Hexachlorobenzene	ND		ug/l	0.80	0.03	1
Hexachloroethane	ND		ug/l	0.80	0.03	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-08
Client ID: SW-1
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 16:30
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	62		21-120
Phenol-d6	48		10-120
Nitrobenzene-d5	91		23-120
2-Fluorobiphenyl	92		15-120
2,4,6-Tribromophenol	**181**	Q	10-120
4-Terphenyl-d14	116		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-09
Client ID: PRW-11
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/12/16 04:43
Analyst: PS

Date Collected: 04/06/16 10:07
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/10/16 21:43

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66	1
Benzidine	ND		ug/l	20	8.1	1
n-Nitrosodimethylamine	ND		ug/l	2.0	0.67	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4	1
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84	1
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1	1
Azobenzene	ND		ug/l	2.0	0.75	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63	1
Hexachlorocyclopentadiene	ND		ug/l	20	7.8	1
Isophorone	ND		ug/l	5.0	0.60	1
Nitrobenzene	ND		ug/l	2.0	0.75	1
NDPA/DPA	ND		ug/l	2.0	0.64	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	0.91	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.3	1
Di-n-butylphthalate	ND		ug/l	5.0	0.69	1
Di-n-octylphthalate	ND		ug/l	5.0	1.1	1
Diethyl phthalate	ND		ug/l	5.0	0.63	1
Dimethyl phthalate	ND		ug/l	5.0	0.65	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.62	1
2-Chlorophenol	ND		ug/l	2.0	0.63	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.77	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.6	1
2-Nitrophenol	ND		ug/l	10	1.5	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-09
Client ID: PRW-11
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 10:07
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
4-Nitrophenol	ND		ug/l	10	1.8	1
2,4-Dinitrophenol	ND		ug/l	20	5.5	1
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1	1
Phenol	ND		ug/l	5.0	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	45		21-120
Phenol-d6	33		10-120
Nitrobenzene-d5	81		23-120
2-Fluorobiphenyl	78		15-120
2,4,6-Tribromophenol	95		10-120
4-Terphenyl-d14	95		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-09
Client ID: PRW-11
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/13/16 22:52
Analyst: KV

Date Collected: 04/06/16 10:07
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/10/16 21:44

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.20	0.04	1
2-Chloronaphthalene	ND		ug/l	0.20	0.04	1
Fluoranthene	ND		ug/l	0.20	0.04	1
Hexachlorobutadiene	ND		ug/l	0.50	0.04	1
Naphthalene	0.08	J	ug/l	0.20	0.04	1
Benzo(a)anthracene	ND		ug/l	0.20	0.02	1
Benzo(a)pyrene	ND		ug/l	0.20	0.04	1
Benzo(b)fluoranthene	ND		ug/l	0.20	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04	1
Chrysene	ND		ug/l	0.20	0.04	1
Acenaphthylene	ND		ug/l	0.20	0.04	1
Anthracene	ND		ug/l	0.20	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.20	0.04	1
Fluorene	ND		ug/l	0.20	0.04	1
Phenanthrene	ND		ug/l	0.20	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.20	0.04	1
Pyrene	ND		ug/l	0.20	0.04	1
Pentachlorophenol	ND		ug/l	0.80	0.22	1
Hexachlorobenzene	ND		ug/l	0.80	0.03	1
Hexachloroethane	ND		ug/l	0.80	0.03	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-09
Client ID: PRW-11
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 10:07
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	59		21-120
Phenol-d6	45		10-120
Nitrobenzene-d5	83		23-120
2-Fluorobiphenyl	89		15-120
2,4,6-Tribromophenol	**178**	Q	10-120
4-Terphenyl-d14	119		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-10 D
Client ID: PRW-07
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/12/16 08:06
Analyst: PS

Date Collected: 04/06/16 11:17
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)
Extraction Method: EPA 3510C
Extraction Date: 04/10/16 21:43

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	10	1.3	2
Benzidine	ND		ug/l	40	16.	2
n-Nitrosodimethylamine	ND		ug/l	4.0	1.3	2
Bis(2-chloroethyl)ether	ND		ug/l	4.0	1.3	2
3,3'-Dichlorobenzidine	ND		ug/l	10	2.8	2
2,4-Dinitrotoluene	ND		ug/l	10	1.7	2
2,6-Dinitrotoluene	ND		ug/l	10	2.2	2
Azobenzene	ND		ug/l	4.0	1.5	2
4-Chlorophenyl phenyl ether	ND		ug/l	4.0	1.2	2
4-Bromophenyl phenyl ether	ND		ug/l	4.0	1.5	2
Bis(2-chloroisopropyl)ether	ND		ug/l	4.0	1.4	2
Bis(2-chloroethoxy)methane	ND		ug/l	10	1.2	2
Hexachlorocyclopentadiene	ND		ug/l	40	16.	2
Isophorone	ND		ug/l	10	1.2	2
Nitrobenzene	ND		ug/l	4.0	1.5	2
NDPA/DPA	ND		ug/l	4.0	1.3	2
n-Nitrosodi-n-propylamine	ND		ug/l	10	1.4	2
Bis(2-ethylhexyl)phthalate	ND		ug/l	6.0	1.8	2
Butyl benzyl phthalate	ND		ug/l	10	2.5	2
Di-n-butylphthalate	ND		ug/l	10	1.4	2
Di-n-octylphthalate	ND		ug/l	10	2.3	2
Diethyl phthalate	2.9	J	ug/l	10	1.2	2
Dimethyl phthalate	ND		ug/l	10	1.3	2
2,4,6-Trichlorophenol	ND		ug/l	10	1.4	2
p-Chloro-m-cresol	ND		ug/l	4.0	1.2	2
2-Chlorophenol	ND		ug/l	4.0	1.3	2
2,4-Dichlorophenol	ND		ug/l	10	1.5	2
2,4-Dimethylphenol	ND		ug/l	10	3.3	2
2-Nitrophenol	ND		ug/l	20	3.0	2

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-10 D
Client ID: PRW-07
Sample Location: STATEN ISLAND, NY

Date Collected: 04/06/16 11:17
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
4-Nitrophenol	ND		ug/l	20	3.5	2
2,4-Dinitrophenol	ND		ug/l	40	11.	2
4,6-Dinitro-o-cresol	ND		ug/l	20	4.2	2
Phenol	ND		ug/l	10	3.8	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	48		21-120
Phenol-d6	35		10-120
Nitrobenzene-d5	90		23-120
2-Fluorobiphenyl	84		15-120
2,4,6-Tribromophenol	95		10-120
4-Terphenyl-d14	87		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-10 D
Client ID: PRW-07
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/13/16 18:54
Analyst: KV

Date Collected: 04/06/16 11:17
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/10/16 21:44

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.40	0.07	2
2-Chloronaphthalene	ND		ug/l	0.40	0.07	2
Fluoranthene	ND		ug/l	0.40	0.08	2
Hexachlorobutadiene	ND		ug/l	1.0	0.07	2
Naphthalene	0.58		ug/l	0.40	0.09	2
Benzo(a)anthracene	ND		ug/l	0.40	0.03	2
Benzo(a)pyrene	ND		ug/l	0.40	0.08	2
Benzo(b)fluoranthene	ND		ug/l	0.40	0.03	2
Benzo(k)fluoranthene	ND		ug/l	0.40	0.08	2
Chrysene	ND		ug/l	0.40	0.08	2
Acenaphthylene	ND		ug/l	0.40	0.07	2
Anthracene	ND		ug/l	0.40	0.07	2
Benzo(ghi)perylene	ND		ug/l	0.40	0.08	2
Fluorene	ND		ug/l	0.40	0.07	2
Phenanthrene	ND		ug/l	0.40	0.03	2
Dibenzo(a,h)anthracene	ND		ug/l	0.40	0.08	2
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.40	0.08	2
Pyrene	ND		ug/l	0.40	0.08	2
Pentachlorophenol	ND		ug/l	1.6	0.44	2
Hexachlorobenzene	ND		ug/l	1.6	0.06	2
Hexachloroethane	ND		ug/l	1.6	0.06	2

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-10 D
Client ID: PRW-07
Sample Location: STATEN ISLAND, NY

Date Collected: 04/06/16 11:17
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	51		21-120
Phenol-d6	39		10-120
Nitrobenzene-d5	70		23-120
2-Fluorobiphenyl	86		15-120
2,4,6-Tribromophenol	**164**	Q	10-120
4-Terphenyl-d14	106		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-11
Client ID: PRW-04
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/12/16 05:09
Analyst: PS

Date Collected: 04/06/16 13:07
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)
Extraction Method: EPA 3510C
Extraction Date: 04/10/16 21:43

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66	1
Benzidine	ND		ug/l	20	8.1	1
n-Nitrosodimethylamine	ND		ug/l	2.0	0.67	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4	1
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84	1
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1	1
Azobenzene	ND		ug/l	2.0	0.75	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63	1
Hexachlorocyclopentadiene	ND		ug/l	20	7.8	1
Isophorone	ND		ug/l	5.0	0.60	1
Nitrobenzene	ND		ug/l	2.0	0.75	1
NDPA/DPA	ND		ug/l	2.0	0.64	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	0.91	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.3	1
Di-n-butylphthalate	ND		ug/l	5.0	0.69	1
Di-n-octylphthalate	ND		ug/l	5.0	1.1	1
Diethyl phthalate	ND		ug/l	5.0	0.63	1
Dimethyl phthalate	ND		ug/l	5.0	0.65	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.62	1
2-Chlorophenol	ND		ug/l	2.0	0.63	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.77	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.6	1
2-Nitrophenol	ND		ug/l	10	1.5	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-11
Client ID: PRW-04
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 13:07
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
4-Nitrophenol	ND		ug/l	10	1.8	1
2,4-Dinitrophenol	ND		ug/l	20	5.5	1
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1	1
Phenol	ND		ug/l	5.0	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	55		21-120
Phenol-d6	38		10-120
Nitrobenzene-d5	94		23-120
2-Fluorobiphenyl	85		15-120
2,4,6-Tribromophenol	98		10-120
4-Terphenyl-d14	93		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-11
Client ID: PRW-04
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/13/16 14:40
Analyst: KV

Date Collected: 04/06/16 13:07
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/10/16 21:44

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.20	0.04	1
2-Chloronaphthalene	ND		ug/l	0.20	0.04	1
Fluoranthene	ND		ug/l	0.20	0.04	1
Hexachlorobutadiene	ND		ug/l	0.50	0.04	1
Naphthalene	ND		ug/l	0.20	0.04	1
Benzo(a)anthracene	ND		ug/l	0.20	0.02	1
Benzo(a)pyrene	ND		ug/l	0.20	0.04	1
Benzo(b)fluoranthene	ND		ug/l	0.20	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04	1
Chrysene	ND		ug/l	0.20	0.04	1
Acenaphthylene	ND		ug/l	0.20	0.04	1
Anthracene	ND		ug/l	0.20	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.20	0.04	1
Fluorene	ND		ug/l	0.20	0.04	1
Phenanthrene	ND		ug/l	0.20	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.20	0.04	1
Pyrene	ND		ug/l	0.20	0.04	1
Pentachlorophenol	ND		ug/l	0.80	0.22	1
Hexachlorobenzene	ND		ug/l	0.80	0.03	1
Hexachloroethane	ND		ug/l	0.80	0.03	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-11
Client ID: PRW-04
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 13:07
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	64		21-120
Phenol-d6	45		10-120
Nitrobenzene-d5	102		23-120
2-Fluorobiphenyl	99		15-120
2,4,6-Tribromophenol	**131**	Q	10-120
4-Terphenyl-d14	107		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-12
Client ID: PRW-03
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/12/16 05:34
Analyst: PS

Date Collected: 04/06/16 14:22
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)
Extraction Method: EPA 3510C
Extraction Date: 04/10/16 23:19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66	1
Benzidine	ND		ug/l	20	8.1	1
n-Nitrosodimethylamine	ND		ug/l	2.0	0.67	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4	1
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84	1
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1	1
Azobenzene	ND		ug/l	2.0	0.75	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63	1
Hexachlorocyclopentadiene	ND		ug/l	20	7.8	1
Isophorone	ND		ug/l	5.0	0.60	1
Nitrobenzene	ND		ug/l	2.0	0.75	1
NDPA/DPA	ND		ug/l	2.0	0.64	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	0.91	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.3	1
Di-n-butylphthalate	ND		ug/l	5.0	0.69	1
Di-n-octylphthalate	ND		ug/l	5.0	1.1	1
Diethyl phthalate	ND		ug/l	5.0	0.63	1
Dimethyl phthalate	ND		ug/l	5.0	0.65	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.62	1
2-Chlorophenol	ND		ug/l	2.0	0.63	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.77	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.6	1
2-Nitrophenol	ND		ug/l	10	1.5	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-12
Client ID: PRW-03
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 14:22
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
4-Nitrophenol	ND		ug/l	10	1.8	1
2,4-Dinitrophenol	ND		ug/l	20	5.5	1
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1	1
Phenol	ND		ug/l	5.0	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	51		21-120
Phenol-d6	36		10-120
Nitrobenzene-d5	88		23-120
2-Fluorobiphenyl	81		15-120
2,4,6-Tribromophenol	94		10-120
4-Terphenyl-d14	91		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-12
Client ID: PRW-03
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/13/16 15:25
Analyst: KV

Date Collected: 04/06/16 14:22
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/10/16 21:44

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.20	0.04	1
2-Chloronaphthalene	ND		ug/l	0.20	0.04	1
Fluoranthene	ND		ug/l	0.20	0.04	1
Hexachlorobutadiene	ND		ug/l	0.50	0.04	1
Naphthalene	ND		ug/l	0.20	0.04	1
Benzo(a)anthracene	ND		ug/l	0.20	0.02	1
Benzo(a)pyrene	ND		ug/l	0.20	0.04	1
Benzo(b)fluoranthene	ND		ug/l	0.20	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04	1
Chrysene	ND		ug/l	0.20	0.04	1
Acenaphthylene	ND		ug/l	0.20	0.04	1
Anthracene	0.23		ug/l	0.20	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.20	0.04	1
Fluorene	ND		ug/l	0.20	0.04	1
Phenanthrene	ND		ug/l	0.20	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.20	0.04	1
Pyrene	ND		ug/l	0.20	0.04	1
Pentachlorophenol	ND		ug/l	0.80	0.22	1
Hexachlorobenzene	ND		ug/l	0.80	0.03	1
Hexachloroethane	ND		ug/l	0.80	0.03	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-12
Client ID: PRW-03
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 14:22
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	65		21-120
Phenol-d6	46		10-120
Nitrobenzene-d5	102		23-120
2-Fluorobiphenyl	98		15-120
2,4,6-Tribromophenol	**132**	Q	10-120
4-Terphenyl-d14	111		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-13
Client ID: SW-4
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/12/16 05:59
Analyst: PS

Date Collected: 04/06/16 16:40
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)
Extraction Method: EPA 3510C
Extraction Date: 04/10/16 23:19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66	1
Benzidine	ND		ug/l	20	8.1	1
n-Nitrosodimethylamine	ND		ug/l	2.0	0.67	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4	1
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84	1
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1	1
Azobenzene	ND		ug/l	2.0	0.75	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63	1
Hexachlorocyclopentadiene	ND		ug/l	20	7.8	1
Isophorone	ND		ug/l	5.0	0.60	1
Nitrobenzene	ND		ug/l	2.0	0.75	1
NDPA/DPA	ND		ug/l	2.0	0.64	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	0.91	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.3	1
Di-n-butylphthalate	ND		ug/l	5.0	0.69	1
Di-n-octylphthalate	ND		ug/l	5.0	1.1	1
Diethyl phthalate	ND		ug/l	5.0	0.63	1
Dimethyl phthalate	ND		ug/l	5.0	0.65	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.62	1
2-Chlorophenol	ND		ug/l	2.0	0.63	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.77	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.6	1
2-Nitrophenol	ND		ug/l	10	1.5	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-13
Client ID: SW-4
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 16:40
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
4-Nitrophenol	ND		ug/l	10	1.8	1
2,4-Dinitrophenol	ND		ug/l	20	5.5	1
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1	1
Phenol	ND		ug/l	5.0	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	36		21-120
Phenol-d6	28		10-120
Nitrobenzene-d5	60		23-120
2-Fluorobiphenyl	68		15-120
2,4,6-Tribromophenol	90		10-120
4-Terphenyl-d14	89		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-13
Client ID: SW-4
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/13/16 15:49
Analyst: KV

Date Collected: 04/06/16 16:40
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/10/16 21:44

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.05	J	ug/l	0.20	0.04	1
2-Chloronaphthalene	ND		ug/l	0.20	0.04	1
Fluoranthene	ND		ug/l	0.20	0.04	1
Hexachlorobutadiene	ND		ug/l	0.50	0.04	1
Naphthalene	ND		ug/l	0.20	0.04	1
Benzo(a)anthracene	ND		ug/l	0.20	0.02	1
Benzo(a)pyrene	ND		ug/l	0.20	0.04	1
Benzo(b)fluoranthene	ND		ug/l	0.20	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04	1
Chrysene	ND		ug/l	0.20	0.04	1
Acenaphthylene	ND		ug/l	0.20	0.04	1
Anthracene	ND		ug/l	0.20	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.20	0.04	1
Fluorene	ND		ug/l	0.20	0.04	1
Phenanthrene	ND		ug/l	0.20	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.20	0.04	1
Pyrene	ND		ug/l	0.20	0.04	1
Pentachlorophenol	ND		ug/l	0.80	0.22	1
Hexachlorobenzene	ND		ug/l	0.80	0.03	1
Hexachloroethane	ND		ug/l	0.80	0.03	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-13
Client ID: SW-4
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 16:40
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	48		21-120
Phenol-d6	38		10-120
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	84		15-120
2,4,6-Tribromophenol	**132**	Q	10-120
4-Terphenyl-d14	116		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-14
Client ID: SW-5
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/12/16 06:24
Analyst: PS

Date Collected: 04/06/16 15:40
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/10/16 23:19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66	1
Benzidine	ND		ug/l	20	8.1	1
n-Nitrosodimethylamine	ND		ug/l	2.0	0.67	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4	1
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84	1
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1	1
Azobenzene	ND		ug/l	2.0	0.75	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63	1
Hexachlorocyclopentadiene	ND		ug/l	20	7.8	1
Isophorone	ND		ug/l	5.0	0.60	1
Nitrobenzene	ND		ug/l	2.0	0.75	1
NDPA/DPA	ND		ug/l	2.0	0.64	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	0.91	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.3	1
Di-n-butylphthalate	ND		ug/l	5.0	0.69	1
Di-n-octylphthalate	ND		ug/l	5.0	1.1	1
Diethyl phthalate	ND		ug/l	5.0	0.63	1
Dimethyl phthalate	ND		ug/l	5.0	0.65	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.62	1
2-Chlorophenol	ND		ug/l	2.0	0.63	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.77	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.6	1
2-Nitrophenol	ND		ug/l	10	1.5	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-14
Client ID: SW-5
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 15:40
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
4-Nitrophenol	ND		ug/l	10	1.8	1
2,4-Dinitrophenol	ND		ug/l	20	5.5	1
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1	1
Phenol	ND		ug/l	5.0	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	49		21-120
Phenol-d6	37		10-120
Nitrobenzene-d5	82		23-120
2-Fluorobiphenyl	83		15-120
2,4,6-Tribromophenol	97		10-120
4-Terphenyl-d14	96		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-14
Client ID: SW-5
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/13/16 16:14
Analyst: KV

Date Collected: 04/06/16 15:40
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/10/16 21:44

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.20	0.04	1
2-Chloronaphthalene	ND		ug/l	0.20	0.04	1
Fluoranthene	ND		ug/l	0.20	0.04	1
Hexachlorobutadiene	ND		ug/l	0.50	0.04	1
Naphthalene	ND		ug/l	0.20	0.04	1
Benzo(a)anthracene	ND		ug/l	0.20	0.02	1
Benzo(a)pyrene	ND		ug/l	0.20	0.04	1
Benzo(b)fluoranthene	ND		ug/l	0.20	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04	1
Chrysene	ND		ug/l	0.20	0.04	1
Acenaphthylene	ND		ug/l	0.20	0.04	1
Anthracene	ND		ug/l	0.20	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.20	0.04	1
Fluorene	ND		ug/l	0.20	0.04	1
Phenanthrene	ND		ug/l	0.20	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.20	0.04	1
Pyrene	ND		ug/l	0.20	0.04	1
Pentachlorophenol	ND		ug/l	0.80	0.22	1
Hexachlorobenzene	ND		ug/l	0.80	0.03	1
Hexachloroethane	ND		ug/l	0.80	0.03	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-14
Client ID: SW-5
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 15:40
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	60		21-120
Phenol-d6	46		10-120
Nitrobenzene-d5	91		23-120
2-Fluorobiphenyl	96		15-120
2,4,6-Tribromophenol	**132**	Q	10-120
4-Terphenyl-d14	116		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-15
Client ID: DUP-1
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/12/16 06:50
Analyst: PS

Date Collected: 04/06/16 00:00
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/10/16 23:19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66	1
Benzidine	ND		ug/l	20	8.1	1
n-Nitrosodimethylamine	ND		ug/l	2.0	0.67	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4	1
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84	1
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1	1
Azobenzene	ND		ug/l	2.0	0.75	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63	1
Hexachlorocyclopentadiene	ND		ug/l	20	7.8	1
Isophorone	ND		ug/l	5.0	0.60	1
Nitrobenzene	ND		ug/l	2.0	0.75	1
NDPA/DPA	ND		ug/l	2.0	0.64	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	0.91	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.3	1
Di-n-butylphthalate	ND		ug/l	5.0	0.69	1
Di-n-octylphthalate	ND		ug/l	5.0	1.1	1
Diethyl phthalate	ND		ug/l	5.0	0.63	1
Dimethyl phthalate	ND		ug/l	5.0	0.65	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.62	1
2-Chlorophenol	ND		ug/l	2.0	0.63	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.77	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.6	1
2-Nitrophenol	ND		ug/l	10	1.5	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-15
Client ID: DUP-1
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 00:00
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
4-Nitrophenol	ND		ug/l	10	1.8	1
2,4-Dinitrophenol	ND		ug/l	20	5.5	1
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1	1
Phenol	ND		ug/l	5.0	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	44		21-120
Phenol-d6	33		10-120
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	73		15-120
2,4,6-Tribromophenol	86		10-120
4-Terphenyl-d14	85		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-15
Client ID: DUP-1
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/13/16 16:39
Analyst: KV

Date Collected: 04/06/16 00:00
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/10/16 21:44

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.20	0.04	1
2-Chloronaphthalene	ND		ug/l	0.20	0.04	1
Fluoranthene	ND		ug/l	0.20	0.04	1
Hexachlorobutadiene	ND		ug/l	0.50	0.04	1
Naphthalene	ND		ug/l	0.20	0.04	1
Benzo(a)anthracene	ND		ug/l	0.20	0.02	1
Benzo(a)pyrene	ND		ug/l	0.20	0.04	1
Benzo(b)fluoranthene	ND		ug/l	0.20	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04	1
Chrysene	ND		ug/l	0.20	0.04	1
Acenaphthylene	ND		ug/l	0.20	0.04	1
Anthracene	ND		ug/l	0.20	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.20	0.04	1
Fluorene	ND		ug/l	0.20	0.04	1
Phenanthrene	ND		ug/l	0.20	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.20	0.04	1
Pyrene	ND		ug/l	0.20	0.04	1
Pentachlorophenol	ND		ug/l	0.80	0.22	1
Hexachlorobenzene	ND		ug/l	0.80	0.03	1
Hexachloroethane	ND		ug/l	0.80	0.03	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-15
Client ID: DUP-1
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 00:00
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	51		21-120
Phenol-d6	39		10-120
Nitrobenzene-d5	78		23-120
2-Fluorobiphenyl	81		15-120
2,4,6-Tribromophenol	109		10-120
4-Terphenyl-d14	93		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-16
Client ID: DUP-2
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/12/16 07:15
Analyst: PS

Date Collected: 04/06/16 00:00
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/10/16 23:19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66	1
Benzidine	ND		ug/l	20	8.1	1
n-Nitrosodimethylamine	ND		ug/l	2.0	0.67	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4	1
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84	1
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1	1
Azobenzene	ND		ug/l	2.0	0.75	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63	1
Hexachlorocyclopentadiene	ND		ug/l	20	7.8	1
Isophorone	ND		ug/l	5.0	0.60	1
Nitrobenzene	ND		ug/l	2.0	0.75	1
NDPA/DPA	ND		ug/l	2.0	0.64	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	0.91	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.3	1
Di-n-butylphthalate	ND		ug/l	5.0	0.69	1
Di-n-octylphthalate	ND		ug/l	5.0	1.1	1
Diethyl phthalate	ND		ug/l	5.0	0.63	1
Dimethyl phthalate	ND		ug/l	5.0	0.65	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.62	1
2-Chlorophenol	ND		ug/l	2.0	0.63	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.77	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.6	1
2-Nitrophenol	ND		ug/l	10	1.5	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-16
Client ID: DUP-2
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 00:00
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
4-Nitrophenol	ND		ug/l	10	1.8	1
2,4-Dinitrophenol	ND		ug/l	20	5.5	1
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1	1
Phenol	ND		ug/l	5.0	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	52		21-120
Phenol-d6	39		10-120
Nitrobenzene-d5	86		23-120
2-Fluorobiphenyl	82		15-120
2,4,6-Tribromophenol	92		10-120
4-Terphenyl-d14	90		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-16
Client ID: DUP-2
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/14/16 07:24
Analyst: KV

Date Collected: 04/06/16 00:00
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/10/16 21:44

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.16	J	ug/l	0.20	0.04	1
2-Chloronaphthalene	ND		ug/l	0.20	0.04	1
Fluoranthene	ND		ug/l	0.20	0.04	1
Hexachlorobutadiene	ND		ug/l	0.50	0.04	1
Naphthalene	ND		ug/l	0.20	0.04	1
Benzo(a)anthracene	ND		ug/l	0.20	0.02	1
Benzo(a)pyrene	ND		ug/l	0.20	0.04	1
Benzo(b)fluoranthene	ND		ug/l	0.20	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04	1
Chrysene	ND		ug/l	0.20	0.04	1
Acenaphthylene	ND		ug/l	0.20	0.04	1
Anthracene	ND		ug/l	0.20	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.20	0.04	1
Fluorene	ND		ug/l	0.20	0.04	1
Phenanthrene	ND		ug/l	0.20	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.20	0.04	1
Pyrene	ND		ug/l	0.20	0.04	1
Pentachlorophenol	ND		ug/l	0.80	0.22	1
Hexachlorobenzene	ND		ug/l	0.80	0.03	1
Hexachloroethane	ND		ug/l	0.80	0.03	1

Project Name: PORT IVORY
Lab Number: L1610064
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-16
Client ID: DUP-2
Sample Location: STATEN ISLAND, NY
Date Collected: 04/06/16 00:00
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	65		21-120
Phenol-d6	49		10-120
Nitrobenzene-d5	100		23-120
2-Fluorobiphenyl	99		15-120
2,4,6-Tribromophenol	**123**	Q	10-120
4-Terphenyl-d14	114		41-149

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 04/11/16 23:39
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 04/10/16 21:43

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-04,06-16 Batch: WG882200-1					
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66
Benzidine	ND		ug/l	20	8.1
n-Nitrosodimethylamine	ND		ug/l	2.0	0.67
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1
Azobenzene	ND		ug/l	2.0	0.75
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63
Hexachlorocyclopentadiene	ND		ug/l	20	7.8
Isophorone	ND		ug/l	5.0	0.60
Nitrobenzene	ND		ug/l	2.0	0.75
NDPA/DPA	ND		ug/l	2.0	0.64
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	0.91
Butyl benzyl phthalate	ND		ug/l	5.0	1.3
Di-n-butylphthalate	ND		ug/l	5.0	0.69
Di-n-octylphthalate	ND		ug/l	5.0	1.1
Diethyl phthalate	ND		ug/l	5.0	0.63
Dimethyl phthalate	ND		ug/l	5.0	0.65
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68
p-Chloro-m-cresol	ND		ug/l	2.0	0.62
2-Chlorophenol	ND		ug/l	2.0	0.63
2,4-Dichlorophenol	ND		ug/l	5.0	0.77
2,4-Dimethylphenol	ND		ug/l	5.0	1.6
2-Nitrophenol	ND		ug/l	10	1.5

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 04/11/16 23:39
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 04/10/16 21:43

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-04,06-16 Batch: WG882200-1					
4-Nitrophenol	ND		ug/l	10	1.8
2,4-Dinitrophenol	ND		ug/l	20	5.5
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1
Phenol	ND		ug/l	5.0	1.9

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	51		21-120
Phenol-d6	37		10-120
Nitrobenzene-d5	86		23-120
2-Fluorobiphenyl	77		15-120
2,4,6-Tribromophenol	80		10-120
4-Terphenyl-d14	92		41-149

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 04/13/16 01:26
Analyst: KV

Extraction Method: EPA 3510C
Extraction Date: 04/10/16 21:44

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-04,06-16 Batch: WG882201-1					
Acenaphthene	ND		ug/l	0.20	0.04
2-Chloronaphthalene	ND		ug/l	0.20	0.04
Fluoranthene	ND		ug/l	0.20	0.04
Hexachlorobutadiene	ND		ug/l	0.50	0.04
Naphthalene	ND		ug/l	0.20	0.04
Benzo(a)anthracene	ND		ug/l	0.20	0.02
Benzo(a)pyrene	ND		ug/l	0.20	0.04
Benzo(b)fluoranthene	ND		ug/l	0.20	0.02
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04
Chrysene	ND		ug/l	0.20	0.04
Acenaphthylene	ND		ug/l	0.20	0.04
Anthracene	ND		ug/l	0.20	0.04
Benzo(ghi)perylene	ND		ug/l	0.20	0.04
Fluorene	ND		ug/l	0.20	0.04
Phenanthrene	ND		ug/l	0.20	0.02
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.20	0.04
Pyrene	ND		ug/l	0.20	0.04
Pentachlorophenol	ND		ug/l	0.80	0.22
Hexachlorobenzene	ND		ug/l	0.80	0.03
Hexachloroethane	ND		ug/l	0.80	0.03

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 04/13/16 01:26
Analyst: KV

Extraction Method: EPA 3510C
Extraction Date: 04/10/16 21:44

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-04,06-16 Batch: WG882201-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	66		21-120
Phenol-d6	49		10-120
Nitrobenzene-d5	100		23-120
2-Fluorobiphenyl	92		15-120
2,4,6-Tribromophenol	**121**	Q	10-120
4-Terphenyl-d14	124		41-149

Lab Control Sample Analysis
Batch Quality Control

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,06-16 Batch: WG882200-2 WG882200-3								
1,2,4-Trichlorobenzene	52		50		39-98	4		30
Benzidine	**0**	Q	**0**	Q	10-66	NC		30
n-Nitrosodimethylamine	50		47		22-100	6		30
Bis(2-chloroethyl)ether	86		81		40-140	6		30
1,2-Dichlorobenzene	51		46		40-140	10		30
1,3-Dichlorobenzene	48		45		40-140	6		30
1,4-Dichlorobenzene	48		45		36-97	6		30
3,3'-Dichlorobenzidine	55		56		40-140	2		30
2,4-Dinitrotoluene	**110**	Q	**103**	Q	24-96	7		30
2,6-Dinitrotoluene	117		106		40-140	10		30
Azobenzene	101		95		40-140	6		30
4-Chlorophenyl phenyl ether	94		88		40-140	7		30
4-Bromophenyl phenyl ether	99		93		40-140	6		30
Bis(2-chloroisopropyl)ether	93		88		40-140	6		30
Bis(2-chloroethoxy)methane	97		85		40-140	13		30
Hexachlorocyclopentadiene	50		48		40-140	4		30
Isophorone	101		88		40-140	14		30
Nitrobenzene	98		91		40-140	7		30
NitrosoDiPhenylAmine(NDPA)/DPA	99		92		40-140	7		30
n-Nitrosodi-n-propylamine	96		85		29-132	12		30
Bis(2-Ethylhexyl)phthalate	112		107		40-140	5		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,06-16 Batch: WG882200-2 WG882200-3								
Butyl benzyl phthalate	117		108		40-140	8		30
Di-n-butylphthalate	108		100		40-140	8		30
Di-n-octylphthalate	118		112		40-140	5		30
Diethyl phthalate	106		100		40-140	6		30
Dimethyl phthalate	103		94		40-140	9		30
Biphenyl	69		68		54-104	1		30
4-Chloroaniline	56		54		40-140	4		30
2-Nitroaniline	112		101		52-143	10		30
3-Nitroaniline	72		69		25-145	4		30
4-Nitroaniline	99		92		51-143	7		30
Dibenzofuran	87		83		40-140	5		30
1,2,4,5-Tetrachlorobenzene	60		61		2-134	2		30
Acetophenone	92		84		39-129	9		30
2,4,6-Trichlorophenol	111		100		30-130	10		30
P-Chloro-M-Cresol	**102**	Q	96		23-97	6		30
2-Chlorophenol	87		80		27-123	8		30
2,4-Dichlorophenol	99		93		30-130	6		30
2,4-Dimethylphenol	72		59		30-130	20		30
2-Nitrophenol	112		101		30-130	10		30
4-Nitrophenol	70		61		10-80	14		30
2,4-Dinitrophenol	106		96		20-130	10		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,06-16 Batch: WG882200-2 WG882200-3								
4,6-Dinitro-o-cresol	111		103		20-164	7		30
Phenol	50		45		12-110	11		30
2-Methylphenol	83		74		30-130	11		30
3-Methylphenol/4-Methylphenol	83		73		30-130	13		30
2,4,5-Trichlorophenol	110		101		30-130	9		30
Benzoic Acid	51		37		10-110	**32**	Q	30
Benzyl Alcohol	80		72		15-110	11		30
Carbazole	100		91		55-144	9		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	64		57		21-120
Phenol-d6	49		45		10-120
Nitrobenzene-d5	107		93		23-120
2-Fluorobiphenyl	91		84		15-120
2,4,6-Tribromophenol	107		95		10-120
4-Terphenyl-d14	104		92		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: PORT IVORY

Project Number: P11955502

Lab Number: L1610064

Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-04,06-16 Batch: WG882201-2 WG882201-3								
Acenaphthene	108		**114**	Q	37-111	5		40
2-Chloronaphthalene	103		108		40-140	5		40
Fluoranthene	131		133		40-140	2		40
Hexachlorobutadiene	82		83		40-140	1		40
Naphthalene	98		101		40-140	3		40
Benzo(a)anthracene	124		125		40-140	1		40
Benzo(a)pyrene	129		132		40-140	2		40
Benzo(b)fluoranthene	135		136		40-140	1		40
Benzo(k)fluoranthene	133		135		40-140	1		40
Chrysene	123		125		40-140	2		40
Acenaphthylene	106		107		40-140	1		40
Anthracene	122		127		40-140	4		40
Benzo(ghi)perylene	133		134		40-140	1		40
Fluorene	125		130		40-140	4		40
Phenanthrene	122		126		40-140	3		40
Dibenzo(a,h)anthracene	140		**142**	Q	40-140	1		40
Indeno(1,2,3-cd)Pyrene	135		137		40-140	1		40
Pyrene	120		121		26-127	1		40
2-Methylnaphthalene	98		103		40-140	5		40
Pentachlorophenol	**138**	Q	**140**	Q	9-103	1		40
Hexachlorobenzene	114		120		40-140	5		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: PORT IVORY

Project Number: P11955502

Lab Number: L1610064

Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-04,06-16 Batch: WG882201-2 WG882201-3								
Hexachloroethane	86		87		40-140	1		40

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	63		65		21-120
Phenol-d6	49		49		10-120
Nitrobenzene-d5	101		102		23-120
2-Fluorobiphenyl	97		97		15-120
2,4,6-Tribromophenol	115		**123**	Q	10-120
4-Terphenyl-d14	119		120		41-149

Matrix Spike Analysis
Batch Quality Control

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,06-16 QC Batch ID: WG882200-4 WG882200-5 QC Sample: L1610064-10 Client ID: PRW-07												
1,2,4-Trichlorobenzene	ND	40	28	70		30	75		39-98	7		30
Benzidine	ND	40	ND	**0**	Q	ND	**0**	Q	10-66	NC		30
n-Nitrosodimethylamine	ND	40	16	40		15	38		22-100	6		30
Bis(2-chloroethyl)ether	ND	40	28	70		30	75		40-140	7		30
1,2-Dichlorobenzene	ND	40	26	65		26	65		40-140	0		30
1,3-Dichlorobenzene	ND	40	24	60		24	60		40-140	0		30
1,4-Dichlorobenzene	ND	40	24	60		24	60		36-97	0		30
3,3'-Dichlorobenzidine	ND	40	ND	**0**	Q	ND	**0**	Q	40-140	NC		30
2,4-Dinitrotoluene	ND	40	38	95		42	**110**	Q	24-96	10		30
2,6-Dinitrotoluene	ND	40	39	98		40	100		40-140	3		30
Azobenzene	ND	40	31	78		33	83		40-140	6		30
4-Chlorophenyl phenyl ether	ND	40	34	85		36	90		40-140	6		30
4-Bromophenyl phenyl ether	ND	40	35	88		38	95		40-140	8		30
Bis(2-chloroisopropyl)ether	ND	40	33	83		36	90		40-140	9		30
Bis(2-chloroethoxy)methane	ND	40	33	83		34	85		40-140	3		30
Hexachlorocyclopentadiene	ND	40	26J	65		27.J	68		40-140	4		30
Isophorone	ND	40	33	83		36	90		40-140	9		30
Nitrobenzene	ND	40	36	90		38	95		40-140	5		30
NitrosoDiPhenylAmine(NDPA)/DPA	ND	40	34	85		26	65		40-140	27		30
n-Nitrosodi-n-propylamine	ND	40	32	80		35	88		29-132	9		30
Bis(2-Ethylhexyl)phthalate	ND	40	40	100		42	110		40-140	5		30

Matrix Spike Analysis
Batch Quality Control

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,06-16 QC Batch ID: WG882200-4 WG882200-5 QC Sample: L1610064-10 Client ID: PRW-07												
Butyl benzyl phthalate	ND	40	40	100		42	110		40-140	5		30
Di-n-butylphthalate	ND	40	38	95		40	100		40-140	5		30
Di-n-octylphthalate	ND	40	42	110		45	110		40-140	7		30
Diethyl phthalate	2.9J	40	37	93		40	100		40-140	8		30
Dimethyl phthalate	ND	40	34	85		37	93		40-140	8		30
Biphenyl	ND	40	31	78		33	83		54-104	6		30
4-Chloroaniline	ND	40	12	**30**	Q	11	**28**	Q	40-140	9		30
2-Nitroaniline	ND	40	42	110		41	100		52-143	2		30
3-Nitroaniline	ND	40	13	33		2.4J	**6**	Q	25-145	**138**	Q	30
4-Nitroaniline	ND	40	25	63		9.8J	**25**	Q	51-143	**87**	Q	30
Dibenzofuran	ND	40	32	80		35	88		40-140	9		30
1,2,4,5-Tetrachlorobenzene	ND	40	31	78		33	83		2-134	6		30
Acetophenone	ND	40	33	83		34	85		39-129	3		30
2,4,6-Trichlorophenol	ND	40	40	100		41	100		30-130	2		30
P-Chloro-M-Cresol	ND	40	38	95		43	**110**	Q	23-97	12		30
2-Chlorophenol	ND	40	29	73		30	75		27-123	3		30
2,4-Dichlorophenol	ND	40	36	90		39	98		30-130	8		30
2,4-Dimethylphenol	ND	40	36	90		38	95		30-130	5		30
2-Nitrophenol	ND	40	39	98		44	110		30-130	12		30
4-Nitrophenol	ND	40	22	55		23	58		10-80	4		30
2,4-Dinitrophenol	ND	40	47	120		48	120		20-130	2		30

Matrix Spike Analysis
Batch Quality Control

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,06-16 QC Batch ID: WG882200-4 WG882200-5 QC Sample: L1610064-10 Client ID: PRW-07												
4,6-Dinitro-o-cresol	ND	40	45	110		47	120		20-164	4		30
Phenol	ND	40	16	40		16	40		12-110	0		30
2-Methylphenol	43	40	76	83		85	110		30-130	11		30
3-Methylphenol/4-Methylphenol	42	40	70	70		73	78		30-130	4		30
2,4,5-Trichlorophenol	ND	40	38	95		42	110		30-130	10		30
Benzoic Acid	ND	40	36J	90		37.J	93		10-110	3		30
Benzyl Alcohol	ND	40	28	70		30	75		15-110	7		30
Carbazole	ND	40	34	85		34	85		55-144	0		30

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
2,4,6-Tribromophenol	99		106		10-120
2-Fluorobiphenyl	84		86		15-120
2-Fluorophenol	49		51		21-120
4-Terphenyl-d14	89		91		41-149
Nitrobenzene-d5	91		97		23-120
Phenol-d6	40		42		10-120

Matrix Spike Analysis
Batch Quality Control

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-04,06-16 QC Batch ID: WG882201-4 WG882201-5 QC Sample: L1610064-10 Client ID: PRW-07												
Acenaphthene	ND	40	29	73		42	110		37-111	37		40
2-Chloronaphthalene	ND	40	31	78		35	88		40-140	12		40
Fluoranthene	ND	40	40	100		44	110		40-140	10		40
Hexachlorobutadiene	ND	40	28	70		30	75		40-140	7		40
Naphthalene	0.58	40	29	71		32	79		40-140	10		40
Benzo(a)anthracene	ND	40	39	98		43	110		40-140	10		40
Benzo(a)pyrene	ND	40	40	100		44	110		40-140	10		40
Benzo(b)fluoranthene	ND	40	40	100		46	120		40-140	14		40
Benzo(k)fluoranthene	ND	40	37	93		43	110		40-140	15		40
Chrysene	ND	40	34	85		37	93		40-140	8		40
Acenaphthylene	ND	40	33	83		36	90		40-140	9		40
Anthracene	ND	40	37	93		40	100		40-140	8		40
Benzo(ghi)perylene	ND	40	38	95		44	110		40-140	15		40
Fluorene	ND	40	44	110		48	120		40-140	9		40
Phenanthrene	ND	40	34	85		37	93		40-140	8		40
Dibenzo(a,h)anthracene	ND	40	40	100		46	120		40-140	14		40
Indeno(1,2,3-cd)Pyrene	ND	40	44	110		52	130		40-140	17		40
Pyrene	ND	40	36	90		41	100		26-127	13		40
2-Methylnaphthalene	0.13J	40	32	80		35	88		40-140	9		40
Pentachlorophenol	ND	40	46	**120**	Q	48	**120**	Q	9-103	4		40
Hexachlorobenzene	ND	40	39	98		44	110		40-140	12		40

Matrix Spike Analysis
Batch Quality Control

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-04,06-16 QC Batch ID: WG882201-4 WG882201-5 QC Sample: L1610064-10 Client ID: PRW-07												
Hexachloroethane	ND	40	27	68		27	68		40-140	0		40

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
2,4,6-Tribromophenol	**149**	Q	**159**	Q	10-120
2-Fluorobiphenyl	84		88		15-120
2-Fluorophenol	54		57		21-120
4-Terphenyl-d14	91		102		41-149
Nitrobenzene-d5	69		76		23-120
Phenol-d6	45		47		10-120

METALS

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-01
Client ID: PRW-02
Sample Location: STATEN ISLAND, NY
Matrix: Water
Date Collected: 04/06/16 11:27
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	0.0002	J	mg/l	0.0040	0.0001	2	04/08/16 03:00	04/11/16 21:37	EPA 3005A	1,6020A	TT
Arsenic, Total	0.0004	J	mg/l	0.0010	0.0002	2	04/08/16 03:00	04/11/16 21:37	EPA 3005A	1,6020A	TT
Barium, Total	0.1860		mg/l	0.0010	0.0001	2	04/08/16 03:00	04/11/16 21:37	EPA 3005A	1,6020A	TT
Beryllium, Total	ND		mg/l	0.0010	0.0003	2	04/08/16 03:00	04/11/16 21:37	EPA 3005A	1,6020A	TT
Cadmium, Total	ND		mg/l	0.0004	0.0001	2	04/08/16 03:00	04/11/16 21:37	EPA 3005A	1,6020A	TT
Chromium, Total	0.0011	J	mg/l	0.0020	0.0005	2	04/08/16 03:00	04/11/16 21:37	EPA 3005A	1,6020A	TT
Copper, Total	0.0009	J	mg/l	0.0020	0.0005	2	04/08/16 03:00	04/11/16 21:37	EPA 3005A	1,6020A	TT
Lead, Total	0.0005	J	mg/l	0.0020	0.0003	2	04/08/16 03:00	04/11/16 21:37	EPA 3005A	1,6020A	TT
Mercury, Total	ND		mg/l	0.00020	0.00006	1	04/08/16 12:03	04/11/16 17:49	EPA 7470A	1,7470A	EA
Nickel, Total	0.0034	J	mg/l	0.0060	0.0002	2	04/08/16 03:00	04/11/16 21:37	EPA 3005A	1,6020A	TT
Selenium, Total	ND		mg/l	0.010	0.002	2	04/08/16 03:00	04/11/16 21:37	EPA 3005A	1,6020A	TT
Silver, Total	0.0002	J	mg/l	0.0008	0.0002	2	04/08/16 03:00	04/11/16 21:37	EPA 3005A	1,6020A	TT
Thallium, Total	ND		mg/l	0.0010	0.0001	2	04/08/16 03:00	04/11/16 21:37	EPA 3005A	1,6020A	TT
Zinc, Total	ND		mg/l	0.0200	0.0051	2	04/08/16 03:00	04/11/16 21:37	EPA 3005A	1,6020A	TT
Dissolved Metals - Westborough Lab											
Antimony, Dissolved	0.0002	J	mg/l	0.0040	0.0001	2	04/08/16 03:14	04/12/16 13:16	EPA 3005A	1,6020A	TT
Arsenic, Dissolved	0.0007	J	mg/l	0.0010	0.0002	2	04/08/16 03:14	04/12/16 13:16	EPA 3005A	1,6020A	TT
Barium, Dissolved	0.1872		mg/l	0.0010	0.0001	2	04/08/16 03:14	04/12/16 13:16	EPA 3005A	1,6020A	TT
Beryllium, Dissolved	ND		mg/l	0.0010	0.0003	2	04/08/16 03:14	04/12/16 13:16	EPA 3005A	1,6020A	TT
Cadmium, Dissolved	ND		mg/l	0.0004	0.0001	2	04/08/16 03:14	04/12/16 13:16	EPA 3005A	1,6020A	TT
Chromium, Dissolved	0.0009	J	mg/l	0.0020	0.0005	2	04/08/16 03:14	04/12/16 13:16	EPA 3005A	1,6020A	TT
Copper, Dissolved	ND		mg/l	0.0020	0.0005	2	04/08/16 03:14	04/12/16 13:16	EPA 3005A	1,6020A	TT
Lead, Dissolved	ND		mg/l	0.0020	0.0003	2	04/08/16 03:14	04/12/16 13:16	EPA 3005A	1,6020A	TT
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	04/08/16 13:55	04/11/16 18:31	EPA 7470A	1,7470A	EA
Nickel, Dissolved	0.0047	J	mg/l	0.0060	0.0002	2	04/08/16 03:14	04/12/16 13:16	EPA 3005A	1,6020A	TT
Selenium, Dissolved	0.003	J	mg/l	0.010	0.002	2	04/08/16 03:14	04/12/16 13:16	EPA 3005A	1,6020A	TT
Silver, Dissolved	0.0005	J	mg/l	0.0008	0.0002	2	04/08/16 03:14	04/12/16 13:16	EPA 3005A	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0010	0.0001	2	04/08/16 03:14	04/12/16 13:16	EPA 3005A	1,6020A	TT
Zinc, Dissolved	ND		mg/l	0.0200	0.0051	2	04/08/16 03:14	04/12/16 13:16	EPA 3005A	1,6020A	TT

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-02
Client ID: PRW-06
Sample Location: STATEN ISLAND, NY
Matrix: Water
Date Collected: 04/06/16 12:46
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	ND		mg/l	0.0040	0.0001	2	04/08/16 03:00	04/11/16 21:40	EPA 3005A	1,6020A	TT
Arsenic, Total	0.0011		mg/l	0.0010	0.0002	2	04/08/16 03:00	04/11/16 21:40	EPA 3005A	1,6020A	TT
Barium, Total	0.0247		mg/l	0.0010	0.0001	2	04/08/16 03:00	04/11/16 21:40	EPA 3005A	1,6020A	TT
Beryllium, Total	ND		mg/l	0.0010	0.0003	2	04/08/16 03:00	04/11/16 21:40	EPA 3005A	1,6020A	TT
Cadmium, Total	ND		mg/l	0.0004	0.0001	2	04/08/16 03:00	04/11/16 21:40	EPA 3005A	1,6020A	TT
Chromium, Total	0.0007	J	mg/l	0.0020	0.0005	2	04/08/16 03:00	04/11/16 21:40	EPA 3005A	1,6020A	TT
Copper, Total	0.0014	J	mg/l	0.0020	0.0005	2	04/08/16 03:00	04/11/16 21:40	EPA 3005A	1,6020A	TT
Lead, Total	0.0006	J	mg/l	0.0020	0.0003	2	04/08/16 03:00	04/11/16 21:40	EPA 3005A	1,6020A	TT
Mercury, Total	ND		mg/l	0.00020	0.00006	1	04/08/16 12:03	04/11/16 17:51	EPA 7470A	1,7470A	EA
Nickel, Total	ND		mg/l	0.0060	0.0002	2	04/08/16 03:00	04/11/16 21:40	EPA 3005A	1,6020A	TT
Selenium, Total	ND		mg/l	0.010	0.002	2	04/08/16 03:00	04/11/16 21:40	EPA 3005A	1,6020A	TT
Silver, Total	ND		mg/l	0.0008	0.0002	2	04/08/16 03:00	04/11/16 21:40	EPA 3005A	1,6020A	TT
Thallium, Total	ND		mg/l	0.0010	0.0001	2	04/08/16 03:00	04/11/16 21:40	EPA 3005A	1,6020A	TT
Zinc, Total	0.0051	J	mg/l	0.0200	0.0051	2	04/08/16 03:00	04/11/16 21:40	EPA 3005A	1,6020A	TT
Dissolved Metals - Westborough Lab											
Antimony, Dissolved	0.0003	J	mg/l	0.0040	0.0001	2	04/08/16 03:14	04/12/16 13:19	EPA 3005A	1,6020A	TT
Arsenic, Dissolved	0.0007	J	mg/l	0.0010	0.0002	2	04/08/16 03:14	04/12/16 13:19	EPA 3005A	1,6020A	TT
Barium, Dissolved	0.0276		mg/l	0.0010	0.0001	2	04/08/16 03:14	04/12/16 13:19	EPA 3005A	1,6020A	TT
Beryllium, Dissolved	ND		mg/l	0.0010	0.0003	2	04/08/16 03:14	04/12/16 13:19	EPA 3005A	1,6020A	TT
Cadmium, Dissolved	ND		mg/l	0.0004	0.0001	2	04/08/16 03:14	04/12/16 13:19	EPA 3005A	1,6020A	TT
Chromium, Dissolved	0.0006	J	mg/l	0.0020	0.0005	2	04/08/16 03:14	04/12/16 13:19	EPA 3005A	1,6020A	TT
Copper, Dissolved	ND		mg/l	0.0020	0.0005	2	04/08/16 03:14	04/12/16 13:19	EPA 3005A	1,6020A	TT
Lead, Dissolved	ND		mg/l	0.0020	0.0003	2	04/08/16 03:14	04/12/16 13:19	EPA 3005A	1,6020A	TT
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	04/08/16 13:55	04/11/16 18:33	EPA 7470A	1,7470A	EA
Nickel, Dissolved	0.0017	J	mg/l	0.0060	0.0002	2	04/08/16 03:14	04/12/16 13:19	EPA 3005A	1,6020A	TT
Selenium, Dissolved	ND		mg/l	0.010	0.002	2	04/08/16 03:14	04/12/16 13:19	EPA 3005A	1,6020A	TT
Silver, Dissolved	0.0004	J	mg/l	0.0008	0.0002	2	04/08/16 03:14	04/12/16 13:19	EPA 3005A	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0010	0.0001	2	04/08/16 03:14	04/12/16 13:19	EPA 3005A	1,6020A	TT
Zinc, Dissolved	ND		mg/l	0.0200	0.0051	2	04/08/16 03:14	04/12/16 13:19	EPA 3005A	1,6020A	TT

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-03
Client ID: PRW-01
Sample Location: STATEN ISLAND, NY
Matrix: Water
Date Collected: 04/06/16 14:12
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	0.0004	J	mg/l	0.0040	0.0001	2	04/08/16 03:00	04/11/16 21:50	EPA 3005A	1,6020A	TT
Arsenic, Total	0.0199		mg/l	0.0010	0.0002	2	04/08/16 03:00	04/11/16 21:50	EPA 3005A	1,6020A	TT
Barium, Total	0.0799		mg/l	0.0010	0.0001	2	04/08/16 03:00	04/11/16 21:50	EPA 3005A	1,6020A	TT
Beryllium, Total	ND		mg/l	0.0010	0.0003	2	04/08/16 03:00	04/11/16 21:50	EPA 3005A	1,6020A	TT
Cadmium, Total	ND		mg/l	0.0004	0.0001	2	04/08/16 03:00	04/11/16 21:50	EPA 3005A	1,6020A	TT
Chromium, Total	0.0017	J	mg/l	0.0020	0.0005	2	04/08/16 03:00	04/11/16 21:50	EPA 3005A	1,6020A	TT
Copper, Total	0.0118		mg/l	0.0020	0.0005	2	04/08/16 03:00	04/11/16 21:50	EPA 3005A	1,6020A	TT
Lead, Total	0.0044		mg/l	0.0020	0.0003	2	04/08/16 03:00	04/11/16 21:50	EPA 3005A	1,6020A	TT
Mercury, Total	ND		mg/l	0.00020	0.00006	1	04/08/16 12:03	04/11/16 17:53	EPA 7470A	1,7470A	EA
Nickel, Total	0.0082		mg/l	0.0060	0.0002	2	04/08/16 03:00	04/11/16 21:50	EPA 3005A	1,6020A	TT
Selenium, Total	0.005	J	mg/l	0.010	0.002	2	04/08/16 03:00	04/11/16 21:50	EPA 3005A	1,6020A	TT
Silver, Total	ND		mg/l	0.0008	0.0002	2	04/08/16 03:00	04/11/16 21:50	EPA 3005A	1,6020A	TT
Thallium, Total	ND		mg/l	0.0010	0.0001	2	04/08/16 03:00	04/11/16 21:50	EPA 3005A	1,6020A	TT
Zinc, Total	0.1658		mg/l	0.0200	0.0051	2	04/08/16 03:00	04/11/16 21:50	EPA 3005A	1,6020A	TT
Dissolved Metals - Westborough Lab											
Antimony, Dissolved	0.0012	J	mg/l	0.0040	0.0001	2	04/08/16 03:14	04/12/16 13:23	EPA 3005A	1,6020A	TT
Arsenic, Dissolved	0.0190		mg/l	0.0010	0.0002	2	04/08/16 03:14	04/12/16 13:23	EPA 3005A	1,6020A	TT
Barium, Dissolved	0.0743		mg/l	0.0010	0.0001	2	04/08/16 03:14	04/12/16 13:23	EPA 3005A	1,6020A	TT
Beryllium, Dissolved	ND		mg/l	0.0010	0.0003	2	04/08/16 03:14	04/12/16 13:23	EPA 3005A	1,6020A	TT
Cadmium, Dissolved	0.0004		mg/l	0.0004	0.0001	2	04/08/16 03:14	04/12/16 13:23	EPA 3005A	1,6020A	TT
Chromium, Dissolved	0.0007	J	mg/l	0.0020	0.0005	2	04/08/16 03:14	04/12/16 13:23	EPA 3005A	1,6020A	TT
Copper, Dissolved	0.0536		mg/l	0.0020	0.0005	2	04/08/16 03:14	04/12/16 13:23	EPA 3005A	1,6020A	TT
Lead, Dissolved	0.0361		mg/l	0.0020	0.0003	2	04/08/16 03:14	04/12/16 13:23	EPA 3005A	1,6020A	TT
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	04/08/16 13:55	04/11/16 18:34	EPA 7470A	1,7470A	EA
Nickel, Dissolved	0.0052	J	mg/l	0.0060	0.0002	2	04/08/16 03:14	04/12/16 13:23	EPA 3005A	1,6020A	TT
Selenium, Dissolved	ND		mg/l	0.010	0.002	2	04/08/16 03:14	04/12/16 13:23	EPA 3005A	1,6020A	TT
Silver, Dissolved	0.0068		mg/l	0.0008	0.0002	2	04/08/16 03:14	04/12/16 13:23	EPA 3005A	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0010	0.0001	2	04/08/16 03:14	04/12/16 13:23	EPA 3005A	1,6020A	TT
Zinc, Dissolved	0.0328		mg/l	0.0200	0.0051	2	04/08/16 03:14	04/12/16 13:23	EPA 3005A	1,6020A	TT

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-04
Client ID: FIELD BLANK
Sample Location: STATEN ISLAND, NY
Matrix: Water
Date Collected: 04/06/16 10:30
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	ND		mg/l	0.0020	0.0001	1	04/08/16 03:00	04/11/16 21:15	EPA 3005A	1,6020A	TT
Arsenic, Total	ND		mg/l	0.0005	0.0001	1	04/08/16 03:00	04/11/16 21:15	EPA 3005A	1,6020A	TT
Barium, Total	ND		mg/l	0.0005	0.0001	1	04/08/16 03:00	04/11/16 21:15	EPA 3005A	1,6020A	TT
Beryllium, Total	ND		mg/l	0.0005	0.0002	1	04/08/16 03:00	04/11/16 21:15	EPA 3005A	1,6020A	TT
Cadmium, Total	ND		mg/l	0.0002	0.0001	1	04/08/16 03:00	04/11/16 21:15	EPA 3005A	1,6020A	TT
Chromium, Total	0.0005	J	mg/l	0.0010	0.0003	1	04/08/16 03:00	04/11/16 21:15	EPA 3005A	1,6020A	TT
Copper, Total	ND		mg/l	0.0010	0.0003	1	04/08/16 03:00	04/11/16 21:15	EPA 3005A	1,6020A	TT
Lead, Total	ND		mg/l	0.0010	0.0001	1	04/08/16 03:00	04/11/16 21:15	EPA 3005A	1,6020A	TT
Mercury, Total	ND		mg/l	0.00020	0.00006	1	04/08/16 12:03	04/11/16 17:55	EPA 7470A	1,7470A	EA
Nickel, Total	0.0016	J	mg/l	0.0030	0.0001	1	04/08/16 03:00	04/11/16 21:15	EPA 3005A	1,6020A	TT
Selenium, Total	0.004	J	mg/l	0.005	0.001	1	04/08/16 03:00	04/11/16 21:15	EPA 3005A	1,6020A	TT
Silver, Total	ND		mg/l	0.0004	0.0001	1	04/08/16 03:00	04/11/16 21:15	EPA 3005A	1,6020A	TT
Thallium, Total	ND		mg/l	0.0005	0.0001	1	04/08/16 03:00	04/11/16 21:15	EPA 3005A	1,6020A	TT
Zinc, Total	ND		mg/l	0.0100	0.0026	1	04/08/16 03:00	04/11/16 21:15	EPA 3005A	1,6020A	TT
Dissolved Metals - Westborough Lab											
Antimony, Dissolved	ND		mg/l	0.0020	0.0001	1	04/08/16 03:14	04/12/16 12:32	EPA 3005A	1,6020A	TT
Arsenic, Dissolved	ND		mg/l	0.0005	0.0001	1	04/08/16 03:14	04/12/16 12:32	EPA 3005A	1,6020A	TT
Barium, Dissolved	0.0001	J	mg/l	0.0005	0.0001	1	04/08/16 03:14	04/12/16 12:32	EPA 3005A	1,6020A	TT
Beryllium, Dissolved	ND		mg/l	0.0005	0.0002	1	04/08/16 03:14	04/12/16 12:32	EPA 3005A	1,6020A	TT
Cadmium, Dissolved	ND		mg/l	0.0002	0.0001	1	04/08/16 03:14	04/12/16 12:32	EPA 3005A	1,6020A	TT
Chromium, Dissolved	0.0004	J	mg/l	0.0010	0.0003	1	04/08/16 03:14	04/12/16 12:32	EPA 3005A	1,6020A	TT
Copper, Dissolved	ND		mg/l	0.0010	0.0003	1	04/08/16 03:14	04/12/16 12:32	EPA 3005A	1,6020A	TT
Lead, Dissolved	ND		mg/l	0.0010	0.0001	1	04/08/16 03:14	04/12/16 12:32	EPA 3005A	1,6020A	TT
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	04/08/16 13:55	04/11/16 18:36	EPA 7470A	1,7470A	EA
Nickel, Dissolved	0.0004	J	mg/l	0.0030	0.0001	1	04/08/16 03:14	04/12/16 12:32	EPA 3005A	1,6020A	TT
Selenium, Dissolved	ND		mg/l	0.005	0.001	1	04/08/16 03:14	04/12/16 12:32	EPA 3005A	1,6020A	TT
Silver, Dissolved	ND		mg/l	0.0004	0.0001	1	04/08/16 03:14	04/12/16 12:32	EPA 3005A	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0005	0.0001	1	04/08/16 03:14	04/12/16 12:32	EPA 3005A	1,6020A	TT
Zinc, Dissolved	ND		mg/l	0.0100	0.0026	1	04/08/16 03:14	04/12/16 12:32	EPA 3005A	1,6020A	TT

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-06
Client ID: SW-3
Sample Location: STATEN ISLAND, NY
Matrix: Water
Date Collected: 04/06/16 15:30
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	0.0007	J	mg/l	0.0040	0.0001	2	04/08/16 03:00	04/11/16 21:53	EPA 3005A	1,6020A	TT
Arsenic, Total	0.0027		mg/l	0.0010	0.0002	2	04/08/16 03:00	04/11/16 21:53	EPA 3005A	1,6020A	TT
Barium, Total	0.0378		mg/l	0.0010	0.0001	2	04/08/16 03:00	04/11/16 21:53	EPA 3005A	1,6020A	TT
Beryllium, Total	ND		mg/l	0.0010	0.0003	2	04/08/16 03:00	04/11/16 21:53	EPA 3005A	1,6020A	TT
Cadmium, Total	0.0002	J	mg/l	0.0004	0.0001	2	04/08/16 03:00	04/11/16 21:53	EPA 3005A	1,6020A	TT
Chromium, Total	0.0013	J	mg/l	0.0020	0.0005	2	04/08/16 03:00	04/11/16 21:53	EPA 3005A	1,6020A	TT
Copper, Total	0.0061		mg/l	0.0020	0.0005	2	04/08/16 03:00	04/11/16 21:53	EPA 3005A	1,6020A	TT
Lead, Total	0.0069		mg/l	0.0020	0.0003	2	04/08/16 03:00	04/11/16 21:53	EPA 3005A	1,6020A	TT
Mercury, Total	ND		mg/l	0.00020	0.00006	1	04/08/16 12:03	04/11/16 17:57	EPA 7470A	1,7470A	EA
Nickel, Total	0.0041	J	mg/l	0.0060	0.0002	2	04/08/16 03:00	04/11/16 21:53	EPA 3005A	1,6020A	TT
Selenium, Total	ND		mg/l	0.010	0.002	2	04/08/16 03:00	04/11/16 21:53	EPA 3005A	1,6020A	TT
Silver, Total	ND		mg/l	0.0008	0.0002	2	04/08/16 03:00	04/11/16 21:53	EPA 3005A	1,6020A	TT
Thallium, Total	ND		mg/l	0.0010	0.0001	2	04/08/16 03:00	04/11/16 21:53	EPA 3005A	1,6020A	TT
Zinc, Total	0.0453		mg/l	0.0200	0.0051	2	04/08/16 03:00	04/11/16 21:53	EPA 3005A	1,6020A	TT
Dissolved Metals - Westborough Lab											
Antimony, Dissolved	0.0009	J	mg/l	0.0040	0.0001	2	04/08/16 03:14	04/12/16 13:26	EPA 3005A	1,6020A	TT
Arsenic, Dissolved	0.0021		mg/l	0.0010	0.0002	2	04/08/16 03:14	04/12/16 13:26	EPA 3005A	1,6020A	TT
Barium, Dissolved	0.0394		mg/l	0.0010	0.0001	2	04/08/16 03:14	04/12/16 13:26	EPA 3005A	1,6020A	TT
Beryllium, Dissolved	ND		mg/l	0.0010	0.0003	2	04/08/16 03:14	04/12/16 13:26	EPA 3005A	1,6020A	TT
Cadmium, Dissolved	ND		mg/l	0.0004	0.0001	2	04/08/16 03:14	04/12/16 13:26	EPA 3005A	1,6020A	TT
Chromium, Dissolved	0.0009	J	mg/l	0.0020	0.0005	2	04/08/16 03:14	04/12/16 13:26	EPA 3005A	1,6020A	TT
Copper, Dissolved	0.0019	J	mg/l	0.0020	0.0005	2	04/08/16 03:14	04/12/16 13:26	EPA 3005A	1,6020A	TT
Lead, Dissolved	0.0003	J	mg/l	0.0020	0.0003	2	04/08/16 03:14	04/12/16 13:26	EPA 3005A	1,6020A	TT
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	04/08/16 13:55	04/11/16 18:38	EPA 7470A	1,7470A	EA
Nickel, Dissolved	0.0043	J	mg/l	0.0060	0.0002	2	04/08/16 03:14	04/12/16 13:26	EPA 3005A	1,6020A	TT
Selenium, Dissolved	0.004	J	mg/l	0.010	0.002	2	04/08/16 03:14	04/12/16 13:26	EPA 3005A	1,6020A	TT
Silver, Dissolved	0.0011		mg/l	0.0008	0.0002	2	04/08/16 03:14	04/12/16 13:26	EPA 3005A	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0010	0.0001	2	04/08/16 03:14	04/12/16 13:26	EPA 3005A	1,6020A	TT
Zinc, Dissolved	0.0172	J	mg/l	0.0200	0.0051	2	04/08/16 03:14	04/12/16 13:26	EPA 3005A	1,6020A	TT

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-07
Client ID: SW-2
Sample Location: STATEN ISLAND, NY
Matrix: Water
Date Collected: 04/06/16 16:00
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	0.0004	J	mg/l	0.0040	0.0001	2	04/08/16 03:00	04/11/16 21:56	EPA 3005A	1,6020A	TT
Arsenic, Total	0.0011		mg/l	0.0010	0.0002	2	04/08/16 03:00	04/11/16 21:56	EPA 3005A	1,6020A	TT
Barium, Total	0.0758		mg/l	0.0010	0.0001	2	04/08/16 03:00	04/11/16 21:56	EPA 3005A	1,6020A	TT
Beryllium, Total	ND		mg/l	0.0010	0.0003	2	04/08/16 03:00	04/11/16 21:56	EPA 3005A	1,6020A	TT
Cadmium, Total	ND		mg/l	0.0004	0.0001	2	04/08/16 03:00	04/11/16 21:56	EPA 3005A	1,6020A	TT
Chromium, Total	0.0007	J	mg/l	0.0020	0.0005	2	04/08/16 03:00	04/11/16 21:56	EPA 3005A	1,6020A	TT
Copper, Total	0.0015	J	mg/l	0.0020	0.0005	2	04/08/16 03:00	04/11/16 21:56	EPA 3005A	1,6020A	TT
Lead, Total	0.0011	J	mg/l	0.0020	0.0003	2	04/08/16 03:00	04/11/16 21:56	EPA 3005A	1,6020A	TT
Mercury, Total	ND		mg/l	0.00020	0.00006	1	04/08/16 12:03	04/11/16 17:58	EPA 7470A	1,7470A	EA
Nickel, Total	0.0014	J	mg/l	0.0060	0.0002	2	04/08/16 03:00	04/11/16 21:56	EPA 3005A	1,6020A	TT
Selenium, Total	0.004	J	mg/l	0.010	0.002	2	04/08/16 03:00	04/11/16 21:56	EPA 3005A	1,6020A	TT
Silver, Total	ND		mg/l	0.0008	0.0002	2	04/08/16 03:00	04/11/16 21:56	EPA 3005A	1,6020A	TT
Thallium, Total	ND		mg/l	0.0010	0.0001	2	04/08/16 03:00	04/11/16 21:56	EPA 3005A	1,6020A	TT
Zinc, Total	ND		mg/l	0.0200	0.0051	2	04/08/16 03:00	04/11/16 21:56	EPA 3005A	1,6020A	TT
Dissolved Metals - Westborough Lab											
Antimony, Dissolved	0.0005	J	mg/l	0.0040	0.0001	2	04/08/16 03:14	04/12/16 13:29	EPA 3005A	1,6020A	TT
Arsenic, Dissolved	0.0006	J	mg/l	0.0010	0.0002	2	04/08/16 03:14	04/12/16 13:29	EPA 3005A	1,6020A	TT
Barium, Dissolved	0.0792		mg/l	0.0010	0.0001	2	04/08/16 03:14	04/12/16 13:29	EPA 3005A	1,6020A	TT
Beryllium, Dissolved	ND		mg/l	0.0010	0.0003	2	04/08/16 03:14	04/12/16 13:29	EPA 3005A	1,6020A	TT
Cadmium, Dissolved	ND		mg/l	0.0004	0.0001	2	04/08/16 03:14	04/12/16 13:29	EPA 3005A	1,6020A	TT
Chromium, Dissolved	0.0009	J	mg/l	0.0020	0.0005	2	04/08/16 03:14	04/12/16 13:29	EPA 3005A	1,6020A	TT
Copper, Dissolved	0.0014	J	mg/l	0.0020	0.0005	2	04/08/16 03:14	04/12/16 13:29	EPA 3005A	1,6020A	TT
Lead, Dissolved	ND		mg/l	0.0020	0.0003	2	04/08/16 03:14	04/12/16 13:29	EPA 3005A	1,6020A	TT
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	04/08/16 13:55	04/11/16 18:40	EPA 7470A	1,7470A	EA
Nickel, Dissolved	0.0032	J	mg/l	0.0060	0.0002	2	04/08/16 03:14	04/12/16 13:29	EPA 3005A	1,6020A	TT
Selenium, Dissolved	ND		mg/l	0.010	0.002	2	04/08/16 03:14	04/12/16 13:29	EPA 3005A	1,6020A	TT
Silver, Dissolved	ND		mg/l	0.0008	0.0002	2	04/08/16 03:14	04/12/16 13:29	EPA 3005A	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0010	0.0001	2	04/08/16 03:14	04/12/16 13:29	EPA 3005A	1,6020A	TT
Zinc, Dissolved	0.0079	J	mg/l	0.0200	0.0051	2	04/08/16 03:14	04/12/16 13:29	EPA 3005A	1,6020A	TT

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-08
Client ID: SW-1
Sample Location: STATEN ISLAND, NY
Matrix: Water
Date Collected: 04/06/16 16:30
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	0.0006	J	mg/l	0.0040	0.0001	2	04/08/16 03:00	04/11/16 21:59	EPA 3005A	1,6020A	TT
Arsenic, Total	0.0011		mg/l	0.0010	0.0002	2	04/08/16 03:00	04/11/16 21:59	EPA 3005A	1,6020A	TT
Barium, Total	0.0792		mg/l	0.0010	0.0001	2	04/08/16 03:00	04/11/16 21:59	EPA 3005A	1,6020A	TT
Beryllium, Total	ND		mg/l	0.0010	0.0003	2	04/08/16 03:00	04/11/16 21:59	EPA 3005A	1,6020A	TT
Cadmium, Total	ND		mg/l	0.0004	0.0001	2	04/08/16 03:00	04/11/16 21:59	EPA 3005A	1,6020A	TT
Chromium, Total	0.0006	J	mg/l	0.0020	0.0005	2	04/08/16 03:00	04/11/16 21:59	EPA 3005A	1,6020A	TT
Copper, Total	0.0028		mg/l	0.0020	0.0005	2	04/08/16 03:00	04/11/16 21:59	EPA 3005A	1,6020A	TT
Lead, Total	0.0006	J	mg/l	0.0020	0.0003	2	04/08/16 03:00	04/11/16 21:59	EPA 3005A	1,6020A	TT
Mercury, Total	ND		mg/l	0.00020	0.00006	1	04/08/16 12:03	04/11/16 18:00	EPA 7470A	1,7470A	EA
Nickel, Total	0.0004	J	mg/l	0.0060	0.0002	2	04/08/16 03:00	04/11/16 21:59	EPA 3005A	1,6020A	TT
Selenium, Total	ND		mg/l	0.010	0.002	2	04/08/16 03:00	04/11/16 21:59	EPA 3005A	1,6020A	TT
Silver, Total	ND		mg/l	0.0008	0.0002	2	04/08/16 03:00	04/11/16 21:59	EPA 3005A	1,6020A	TT
Thallium, Total	ND		mg/l	0.0010	0.0001	2	04/08/16 03:00	04/11/16 21:59	EPA 3005A	1,6020A	TT
Zinc, Total	ND		mg/l	0.0200	0.0051	2	04/08/16 03:00	04/11/16 21:59	EPA 3005A	1,6020A	TT
Dissolved Metals - Westborough Lab											
Antimony, Dissolved	0.0007	J	mg/l	0.0040	0.0001	2	04/08/16 03:14	04/12/16 13:32	EPA 3005A	1,6020A	TT
Arsenic, Dissolved	0.002		mg/l	0.0010	0.0002	2	04/08/16 03:14	04/12/16 13:32	EPA 3005A	1,6020A	TT
Barium, Dissolved	0.0801		mg/l	0.0010	0.0001	2	04/08/16 03:14	04/12/16 13:32	EPA 3005A	1,6020A	TT
Beryllium, Dissolved	ND		mg/l	0.0010	0.0003	2	04/08/16 03:14	04/12/16 13:32	EPA 3005A	1,6020A	TT
Cadmium, Dissolved	ND		mg/l	0.0004	0.0001	2	04/08/16 03:14	04/12/16 13:32	EPA 3005A	1,6020A	TT
Chromium, Dissolved	0.0009	J	mg/l	0.0020	0.0005	2	04/08/16 03:14	04/12/16 13:32	EPA 3005A	1,6020A	TT
Copper, Dissolved	0.0013	J	mg/l	0.0020	0.0005	2	04/08/16 03:14	04/12/16 13:32	EPA 3005A	1,6020A	TT
Lead, Dissolved	0.0004	J	mg/l	0.0020	0.0003	2	04/08/16 03:14	04/12/16 13:32	EPA 3005A	1,6020A	TT
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	04/08/16 13:55	04/11/16 18:42	EPA 7470A	1,7470A	EA
Nickel, Dissolved	0.0031	J	mg/l	0.0060	0.0002	2	04/08/16 03:14	04/12/16 13:32	EPA 3005A	1,6020A	TT
Selenium, Dissolved	ND		mg/l	0.010	0.002	2	04/08/16 03:14	04/12/16 13:32	EPA 3005A	1,6020A	TT
Silver, Dissolved	ND		mg/l	0.0008	0.0002	2	04/08/16 03:14	04/12/16 13:32	EPA 3005A	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0010	0.0001	2	04/08/16 03:14	04/12/16 13:32	EPA 3005A	1,6020A	TT
Zinc, Dissolved	0.0052	J	mg/l	0.0200	0.0051	2	04/08/16 03:14	04/12/16 13:32	EPA 3005A	1,6020A	TT

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-09
Client ID: PRW-11
Sample Location: STATEN ISLAND, NY
Matrix: Water
Date Collected: 04/06/16 10:07
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	0.0003	J	mg/l	0.0040	0.0001	2	04/08/16 03:00	04/11/16 22:02	EPA 3005A	1,6020A	TT
Arsenic, Total	0.0028		mg/l	0.0010	0.0002	2	04/08/16 03:00	04/11/16 22:02	EPA 3005A	1,6020A	TT
Barium, Total	0.0135		mg/l	0.0010	0.0001	2	04/08/16 03:00	04/11/16 22:02	EPA 3005A	1,6020A	TT
Beryllium, Total	ND		mg/l	0.0010	0.0003	2	04/08/16 03:00	04/11/16 22:02	EPA 3005A	1,6020A	TT
Cadmium, Total	ND		mg/l	0.0004	0.0001	2	04/08/16 03:00	04/11/16 22:02	EPA 3005A	1,6020A	TT
Chromium, Total	0.0013	J	mg/l	0.0020	0.0005	2	04/08/16 03:00	04/11/16 22:02	EPA 3005A	1,6020A	TT
Copper, Total	0.0028		mg/l	0.0020	0.0005	2	04/08/16 03:00	04/11/16 22:02	EPA 3005A	1,6020A	TT
Lead, Total	0.0005	J	mg/l	0.0020	0.0003	2	04/08/16 03:00	04/11/16 22:02	EPA 3005A	1,6020A	TT
Mercury, Total	ND		mg/l	0.00020	0.00006	1	04/08/16 12:03	04/11/16 18:02	EPA 7470A	1,7470A	EA
Nickel, Total	ND		mg/l	0.0060	0.0002	2	04/08/16 03:00	04/11/16 22:02	EPA 3005A	1,6020A	TT
Selenium, Total	ND		mg/l	0.010	0.002	2	04/08/16 03:00	04/11/16 22:02	EPA 3005A	1,6020A	TT
Silver, Total	ND		mg/l	0.0008	0.0002	2	04/08/16 03:00	04/11/16 22:02	EPA 3005A	1,6020A	TT
Thallium, Total	ND		mg/l	0.0010	0.0001	2	04/08/16 03:00	04/11/16 22:02	EPA 3005A	1,6020A	TT
Zinc, Total	ND		mg/l	0.0200	0.0051	2	04/08/16 03:00	04/11/16 22:02	EPA 3005A	1,6020A	TT
Dissolved Metals - Westborough Lab											
Antimony, Dissolved	0.0004	J	mg/l	0.0040	0.0001	2	04/08/16 03:14	04/12/16 13:35	EPA 3005A	1,6020A	TT
Arsenic, Dissolved	0.0031		mg/l	0.0010	0.0002	2	04/08/16 03:14	04/12/16 13:35	EPA 3005A	1,6020A	TT
Barium, Dissolved	0.0140		mg/l	0.0010	0.0001	2	04/08/16 03:14	04/12/16 13:35	EPA 3005A	1,6020A	TT
Beryllium, Dissolved	ND		mg/l	0.0010	0.0003	2	04/08/16 03:14	04/12/16 13:35	EPA 3005A	1,6020A	TT
Cadmium, Dissolved	ND		mg/l	0.0004	0.0001	2	04/08/16 03:14	04/12/16 13:35	EPA 3005A	1,6020A	TT
Chromium, Dissolved	0.0013	J	mg/l	0.0020	0.0005	2	04/08/16 03:14	04/12/16 13:35	EPA 3005A	1,6020A	TT
Copper, Dissolved	0.0030		mg/l	0.0020	0.0005	2	04/08/16 03:14	04/12/16 13:35	EPA 3005A	1,6020A	TT
Lead, Dissolved	ND		mg/l	0.0020	0.0003	2	04/08/16 03:14	04/12/16 13:35	EPA 3005A	1,6020A	TT
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	04/08/16 13:55	04/11/16 18:44	EPA 7470A	1,7470A	EA
Nickel, Dissolved	0.0015	J	mg/l	0.0060	0.0002	2	04/08/16 03:14	04/12/16 13:35	EPA 3005A	1,6020A	TT
Selenium, Dissolved	ND		mg/l	0.010	0.002	2	04/08/16 03:14	04/12/16 13:35	EPA 3005A	1,6020A	TT
Silver, Dissolved	ND		mg/l	0.0008	0.0002	2	04/08/16 03:14	04/12/16 13:35	EPA 3005A	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0010	0.0001	2	04/08/16 03:14	04/12/16 13:35	EPA 3005A	1,6020A	TT
Zinc, Dissolved	ND		mg/l	0.0200	0.0051	2	04/08/16 03:14	04/12/16 13:35	EPA 3005A	1,6020A	TT

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-10
Client ID: PRW-07
Sample Location: STATEN ISLAND, NY
Matrix: Water
Date Collected: 04/06/16 11:17
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	0.0005	J	mg/l	0.0040	0.0001	2	04/08/16 03:00	04/11/16 21:25	EPA 3005A	1,6020A	TT
Arsenic, Total	0.0016		mg/l	0.0010	0.0002	2	04/08/16 03:00	04/11/16 21:25	EPA 3005A	1,6020A	TT
Barium, Total	0.0282		mg/l	0.0010	0.0001	2	04/08/16 03:00	04/11/16 21:25	EPA 3005A	1,6020A	TT
Beryllium, Total	ND		mg/l	0.0010	0.0003	2	04/08/16 03:00	04/11/16 21:25	EPA 3005A	1,6020A	TT
Cadmium, Total	ND		mg/l	0.0004	0.0001	2	04/08/16 03:00	04/11/16 21:25	EPA 3005A	1,6020A	TT
Chromium, Total	0.0015	J	mg/l	0.0020	0.0005	2	04/08/16 03:00	04/11/16 21:25	EPA 3005A	1,6020A	TT
Copper, Total	ND		mg/l	0.0020	0.0005	2	04/08/16 03:00	04/11/16 21:25	EPA 3005A	1,6020A	TT
Lead, Total	ND		mg/l	0.0020	0.0003	2	04/08/16 03:00	04/11/16 21:25	EPA 3005A	1,6020A	TT
Mercury, Total	ND		mg/l	0.00020	0.00006	1	04/08/16 12:03	04/11/16 17:29	EPA 7470A	1,7470A	EA
Nickel, Total	0.0160		mg/l	0.0060	0.0002	2	04/08/16 03:00	04/11/16 21:25	EPA 3005A	1,6020A	TT
Selenium, Total	0.005	J	mg/l	0.010	0.002	2	04/08/16 03:00	04/11/16 21:25	EPA 3005A	1,6020A	TT
Silver, Total	ND		mg/l	0.0008	0.0002	2	04/08/16 03:00	04/11/16 21:25	EPA 3005A	1,6020A	TT
Thallium, Total	ND		mg/l	0.0010	0.0001	2	04/08/16 03:00	04/11/16 21:25	EPA 3005A	1,6020A	TT
Zinc, Total	ND		mg/l	0.0200	0.0051	2	04/08/16 03:00	04/11/16 21:25	EPA 3005A	1,6020A	TT
Dissolved Metals - Westborough Lab											
Antimony, Dissolved	0.0015	J	mg/l	0.0040	0.0001	2	04/08/16 03:14	04/12/16 12:38	EPA 3005A	1,6020A	TT
Arsenic, Dissolved	0.0015		mg/l	0.0010	0.0002	2	04/08/16 03:14	04/12/16 12:38	EPA 3005A	1,6020A	TT
Barium, Dissolved	0.0326		mg/l	0.0010	0.0001	2	04/08/16 03:14	04/12/16 12:38	EPA 3005A	1,6020A	TT
Beryllium, Dissolved	ND		mg/l	0.0010	0.0003	2	04/08/16 03:14	04/12/16 12:38	EPA 3005A	1,6020A	TT
Cadmium, Dissolved	ND		mg/l	0.0004	0.0001	2	04/08/16 03:14	04/12/16 12:38	EPA 3005A	1,6020A	TT
Chromium, Dissolved	0.0017	J	mg/l	0.0020	0.0005	2	04/08/16 03:14	04/12/16 12:38	EPA 3005A	1,6020A	TT
Copper, Dissolved	ND		mg/l	0.0020	0.0005	2	04/08/16 03:14	04/12/16 12:38	EPA 3005A	1,6020A	TT
Lead, Dissolved	ND		mg/l	0.0020	0.0003	2	04/08/16 03:14	04/12/16 12:38	EPA 3005A	1,6020A	TT
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	04/08/16 13:55	04/11/16 18:22	EPA 7470A	1,7470A	EA
Nickel, Dissolved	0.0116		mg/l	0.0060	0.0002	2	04/08/16 03:14	04/12/16 12:38	EPA 3005A	1,6020A	TT
Selenium, Dissolved	0.005	J	mg/l	0.010	0.002	2	04/08/16 03:14	04/12/16 12:38	EPA 3005A	1,6020A	TT
Silver, Dissolved	ND		mg/l	0.0008	0.0002	2	04/08/16 03:14	04/12/16 12:38	EPA 3005A	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0010	0.0001	2	04/08/16 03:14	04/12/16 12:38	EPA 3005A	1,6020A	TT
Zinc, Dissolved	ND		mg/l	0.0200	0.0051	2	04/08/16 03:14	04/12/16 12:38	EPA 3005A	1,6020A	TT

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-11
Client ID: PRW-04
Sample Location: STATEN ISLAND, NY
Matrix: Water
Date Collected: 04/06/16 13:07
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	0.0013	J	mg/l	0.0040	0.0001	2	04/08/16 03:00	04/11/16 22:05	EPA 3005A	1,6020A	TT
Arsenic, Total	0.0022		mg/l	0.0010	0.0002	2	04/08/16 03:00	04/11/16 22:05	EPA 3005A	1,6020A	TT
Barium, Total	0.0550		mg/l	0.0010	0.0001	2	04/08/16 03:00	04/11/16 22:05	EPA 3005A	1,6020A	TT
Beryllium, Total	ND		mg/l	0.0010	0.0003	2	04/08/16 03:00	04/11/16 22:05	EPA 3005A	1,6020A	TT
Cadmium, Total	0.0001	J	mg/l	0.0004	0.0001	2	04/08/16 03:00	04/11/16 22:05	EPA 3005A	1,6020A	TT
Chromium, Total	0.0185		mg/l	0.0020	0.0005	2	04/08/16 03:00	04/11/16 22:05	EPA 3005A	1,6020A	TT
Copper, Total	0.0249		mg/l	0.0020	0.0005	2	04/08/16 03:00	04/11/16 22:05	EPA 3005A	1,6020A	TT
Lead, Total	0.0181		mg/l	0.0020	0.0003	2	04/08/16 03:00	04/11/16 22:05	EPA 3005A	1,6020A	TT
Mercury, Total	ND		mg/l	0.00020	0.00006	1	04/08/16 12:03	04/11/16 18:07	EPA 7470A	1,7470A	EA
Nickel, Total	0.0105		mg/l	0.0060	0.0002	2	04/08/16 03:00	04/11/16 22:05	EPA 3005A	1,6020A	TT
Selenium, Total	0.002	J	mg/l	0.010	0.002	2	04/08/16 03:00	04/11/16 22:05	EPA 3005A	1,6020A	TT
Silver, Total	ND		mg/l	0.0008	0.0002	2	04/08/16 03:00	04/11/16 22:05	EPA 3005A	1,6020A	TT
Thallium, Total	ND		mg/l	0.0010	0.0001	2	04/08/16 03:00	04/11/16 22:05	EPA 3005A	1,6020A	TT
Zinc, Total	0.0680		mg/l	0.0200	0.0051	2	04/08/16 03:00	04/11/16 22:05	EPA 3005A	1,6020A	TT
Dissolved Metals - Westborough Lab											
Antimony, Dissolved	0.0014	J	mg/l	0.0040	0.0001	2	04/08/16 03:14	04/12/16 13:38	EPA 3005A	1,6020A	TT
Arsenic, Dissolved	0.0015		mg/l	0.0010	0.0002	2	04/08/16 03:14	04/12/16 13:38	EPA 3005A	1,6020A	TT
Barium, Dissolved	0.0253		mg/l	0.0010	0.0001	2	04/08/16 03:14	04/12/16 13:38	EPA 3005A	1,6020A	TT
Beryllium, Dissolved	ND		mg/l	0.0010	0.0003	2	04/08/16 03:14	04/12/16 13:38	EPA 3005A	1,6020A	TT
Cadmium, Dissolved	ND		mg/l	0.0004	0.0001	2	04/08/16 03:14	04/12/16 13:38	EPA 3005A	1,6020A	TT
Chromium, Dissolved	0.0072		mg/l	0.0020	0.0005	2	04/08/16 03:14	04/12/16 13:38	EPA 3005A	1,6020A	TT
Copper, Dissolved	0.0029		mg/l	0.0020	0.0005	2	04/08/16 03:14	04/12/16 13:38	EPA 3005A	1,6020A	TT
Lead, Dissolved	0.0005	J	mg/l	0.0020	0.0003	2	04/08/16 03:14	04/12/16 13:38	EPA 3005A	1,6020A	TT
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	04/08/16 13:55	04/11/16 18:45	EPA 7470A	1,7470A	EA
Nickel, Dissolved	0.0021	J	mg/l	0.0060	0.0002	2	04/08/16 03:14	04/12/16 13:38	EPA 3005A	1,6020A	TT
Selenium, Dissolved	ND		mg/l	0.010	0.002	2	04/08/16 03:14	04/12/16 13:38	EPA 3005A	1,6020A	TT
Silver, Dissolved	ND		mg/l	0.0008	0.0002	2	04/08/16 03:14	04/12/16 13:38	EPA 3005A	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0010	0.0001	2	04/08/16 03:14	04/12/16 13:38	EPA 3005A	1,6020A	TT
Zinc, Dissolved	ND		mg/l	0.0200	0.0051	2	04/08/16 03:14	04/12/16 13:38	EPA 3005A	1,6020A	TT

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-12
Client ID: PRW-03
Sample Location: STATEN ISLAND, NY
Matrix: Water
Date Collected: 04/06/16 14:22
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	0.0005	J	mg/l	0.0040	0.0001	2	04/08/16 03:00	04/11/16 22:08	EPA 3005A	1,6020A	TT
Arsenic, Total	0.0102		mg/l	0.0010	0.0002	2	04/08/16 03:00	04/11/16 22:08	EPA 3005A	1,6020A	TT
Barium, Total	0.0290		mg/l	0.0010	0.0001	2	04/08/16 03:00	04/11/16 22:08	EPA 3005A	1,6020A	TT
Beryllium, Total	ND		mg/l	0.0010	0.0003	2	04/08/16 03:00	04/11/16 22:08	EPA 3005A	1,6020A	TT
Cadmium, Total	ND		mg/l	0.0004	0.0001	2	04/08/16 03:00	04/11/16 22:08	EPA 3005A	1,6020A	TT
Chromium, Total	0.0041		mg/l	0.0020	0.0005	2	04/08/16 03:00	04/11/16 22:08	EPA 3005A	1,6020A	TT
Copper, Total	0.0022		mg/l	0.0020	0.0005	2	04/08/16 03:00	04/11/16 22:08	EPA 3005A	1,6020A	TT
Lead, Total	0.0008	J	mg/l	0.0020	0.0003	2	04/08/16 03:00	04/11/16 22:08	EPA 3005A	1,6020A	TT
Mercury, Total	ND		mg/l	0.00020	0.00006	1	04/08/16 12:03	04/11/16 18:09	EPA 7470A	1,7470A	EA
Nickel, Total	0.0044	J	mg/l	0.0060	0.0002	2	04/08/16 03:00	04/11/16 22:08	EPA 3005A	1,6020A	TT
Selenium, Total	ND		mg/l	0.010	0.002	2	04/08/16 03:00	04/11/16 22:08	EPA 3005A	1,6020A	TT
Silver, Total	ND		mg/l	0.0008	0.0002	2	04/08/16 03:00	04/11/16 22:08	EPA 3005A	1,6020A	TT
Thallium, Total	ND		mg/l	0.0010	0.0001	2	04/08/16 03:00	04/11/16 22:08	EPA 3005A	1,6020A	TT
Zinc, Total	ND		mg/l	0.0200	0.0051	2	04/08/16 03:00	04/11/16 22:08	EPA 3005A	1,6020A	TT
Dissolved Metals - Westborough Lab											
Antimony, Dissolved	0.0008	J	mg/l	0.0040	0.0001	2	04/08/16 03:14	04/12/16 13:49	EPA 3005A	1,6020A	TT
Arsenic, Dissolved	0.0052		mg/l	0.0010	0.0002	2	04/08/16 03:14	04/12/16 13:49	EPA 3005A	1,6020A	TT
Barium, Dissolved	0.0283		mg/l	0.0010	0.0001	2	04/08/16 03:14	04/12/16 13:49	EPA 3005A	1,6020A	TT
Beryllium, Dissolved	ND		mg/l	0.0010	0.0003	2	04/08/16 03:14	04/12/16 13:49	EPA 3005A	1,6020A	TT
Cadmium, Dissolved	ND		mg/l	0.0004	0.0001	2	04/08/16 03:14	04/12/16 13:49	EPA 3005A	1,6020A	TT
Chromium, Dissolved	0.0008	J	mg/l	0.0020	0.0005	2	04/08/16 03:14	04/12/16 13:49	EPA 3005A	1,6020A	TT
Copper, Dissolved	0.0005	J	mg/l	0.0020	0.0005	2	04/08/16 03:14	04/12/16 13:49	EPA 3005A	1,6020A	TT
Lead, Dissolved	ND		mg/l	0.0020	0.0003	2	04/08/16 03:14	04/12/16 13:49	EPA 3005A	1,6020A	TT
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	04/08/16 13:55	04/11/16 21:19	EPA 7470A	1,7470A	EA
Nickel, Dissolved	0.0040	J	mg/l	0.0060	0.0002	2	04/08/16 03:14	04/12/16 13:49	EPA 3005A	1,6020A	TT
Selenium, Dissolved	ND		mg/l	0.010	0.002	2	04/08/16 03:14	04/12/16 13:49	EPA 3005A	1,6020A	TT
Silver, Dissolved	0.0002	J	mg/l	0.0008	0.0002	2	04/08/16 03:14	04/12/16 13:49	EPA 3005A	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0010	0.0001	2	04/08/16 03:14	04/12/16 13:49	EPA 3005A	1,6020A	TT
Zinc, Dissolved	ND		mg/l	0.0200	0.0051	2	04/08/16 03:14	04/12/16 13:49	EPA 3005A	1,6020A	TT

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-13
Client ID: SW-4
Sample Location: STATEN ISLAND, NY
Matrix: Water
Date Collected: 04/06/16 16:40
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	0.0008	J	mg/l	0.0040	0.0001	2	04/08/16 03:00	04/11/16 22:11	EPA 3005A	1,6020A	TT
Arsenic, Total	0.003		mg/l	0.0010	0.0002	2	04/08/16 03:00	04/11/16 22:11	EPA 3005A	1,6020A	TT
Barium, Total	0.0467		mg/l	0.0010	0.0001	2	04/08/16 03:00	04/11/16 22:11	EPA 3005A	1,6020A	TT
Beryllium, Total	ND		mg/l	0.0010	0.0003	2	04/08/16 03:00	04/11/16 22:11	EPA 3005A	1,6020A	TT
Cadmium, Total	0.0001	J	mg/l	0.0004	0.0001	2	04/08/16 03:00	04/11/16 22:11	EPA 3005A	1,6020A	TT
Chromium, Total	0.0020	J	mg/l	0.0020	0.0005	2	04/08/16 03:00	04/11/16 22:11	EPA 3005A	1,6020A	TT
Copper, Total	0.0062		mg/l	0.0020	0.0005	2	04/08/16 03:00	04/11/16 22:11	EPA 3005A	1,6020A	TT
Lead, Total	0.0087		mg/l	0.0020	0.0003	2	04/08/16 03:00	04/11/16 22:11	EPA 3005A	1,6020A	TT
Mercury, Total	ND		mg/l	0.00020	0.00006	1	04/08/16 12:03	04/11/16 18:11	EPA 7470A	1,7470A	EA
Nickel, Total	0.0090		mg/l	0.0060	0.0002	2	04/08/16 03:00	04/11/16 22:11	EPA 3005A	1,6020A	TT
Selenium, Total	ND		mg/l	0.010	0.002	2	04/08/16 03:00	04/11/16 22:11	EPA 3005A	1,6020A	TT
Silver, Total	0.0002	J	mg/l	0.0008	0.0002	2	04/08/16 03:00	04/11/16 22:11	EPA 3005A	1,6020A	TT
Thallium, Total	ND		mg/l	0.0004	0.0001	2	04/08/16 03:00	04/11/16 22:11	EPA 3005A	1,6020A	TT
Zinc, Total	0.0518		mg/l	0.0200	0.0051	2	04/08/16 03:00	04/11/16 22:11	EPA 3005A	1,6020A	TT
Dissolved Metals - Westborough Lab											
Antimony, Dissolved	0.0011	J	mg/l	0.0040	0.0001	2	04/08/16 03:14	04/12/16 13:52	EPA 3005A	1,6020A	TT
Arsenic, Dissolved	0.0021		mg/l	0.0010	0.0002	2	04/08/16 03:14	04/12/16 13:52	EPA 3005A	1,6020A	TT
Barium, Dissolved	0.0463		mg/l	0.0010	0.0001	2	04/08/16 03:14	04/12/16 13:52	EPA 3005A	1,6020A	TT
Beryllium, Dissolved	ND		mg/l	0.0010	0.0003	2	04/08/16 03:14	04/12/16 13:52	EPA 3005A	1,6020A	TT
Cadmium, Dissolved	ND		mg/l	0.0004	0.0001	2	04/08/16 03:14	04/12/16 13:52	EPA 3005A	1,6020A	TT
Chromium, Dissolved	0.0010	J	mg/l	0.0020	0.0005	2	04/08/16 03:14	04/12/16 13:52	EPA 3005A	1,6020A	TT
Copper, Dissolved	0.0018	J	mg/l	0.0020	0.0005	2	04/08/16 03:14	04/12/16 13:52	EPA 3005A	1,6020A	TT
Lead, Dissolved	0.0009	J	mg/l	0.0020	0.0003	2	04/08/16 03:14	04/12/16 13:52	EPA 3005A	1,6020A	TT
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	04/08/16 13:55	04/11/16 21:20	EPA 7470A	1,7470A	EA
Nickel, Dissolved	0.0050	J	mg/l	0.0060	0.0002	2	04/08/16 03:14	04/12/16 13:52	EPA 3005A	1,6020A	TT
Selenium, Dissolved	ND		mg/l	0.010	0.002	2	04/08/16 03:14	04/12/16 13:52	EPA 3005A	1,6020A	TT
Silver, Dissolved	0.0006	J	mg/l	0.0008	0.0002	2	04/08/16 03:14	04/12/16 13:52	EPA 3005A	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0010	0.0001	2	04/08/16 03:14	04/12/16 13:52	EPA 3005A	1,6020A	TT
Zinc, Dissolved	0.0177	J	mg/l	0.0200	0.0051	2	04/08/16 03:14	04/12/16 13:52	EPA 3005A	1,6020A	TT

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-14
Client ID: SW-5
Sample Location: STATEN ISLAND, NY
Matrix: Water
Date Collected: 04/06/16 15:40
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	0.0006	J	mg/l	0.0040	0.0001	2	04/08/16 03:00	04/11/16 22:14	EPA 3005A	1,6020A	TT
Arsenic, Total	0.0030		mg/l	0.0010	0.0002	2	04/08/16 03:00	04/11/16 22:14	EPA 3005A	1,6020A	TT
Barium, Total	0.0377		mg/l	0.0010	0.0001	2	04/08/16 03:00	04/11/16 22:14	EPA 3005A	1,6020A	TT
Beryllium, Total	ND		mg/l	0.0010	0.0003	2	04/08/16 03:00	04/11/16 22:14	EPA 3005A	1,6020A	TT
Cadmium, Total	0.0001	J	mg/l	0.0004	0.0001	2	04/08/16 03:00	04/11/16 22:14	EPA 3005A	1,6020A	TT
Chromium, Total	0.0016	J	mg/l	0.0020	0.0005	2	04/08/16 03:00	04/11/16 22:14	EPA 3005A	1,6020A	TT
Copper, Total	0.0060		mg/l	0.0020	0.0005	2	04/08/16 03:00	04/11/16 22:14	EPA 3005A	1,6020A	TT
Lead, Total	0.0064	J	mg/l	0.0100	0.0013	10	04/08/16 03:00	04/12/16 09:54	EPA 3005A	1,6020A	TT
Mercury, Total	ND		mg/l	0.00020	0.00006	1	04/08/16 12:03	04/11/16 18:13	EPA 7470A	1,7470A	EA
Nickel, Total	0.0036	J	mg/l	0.0060	0.0002	2	04/08/16 03:00	04/11/16 22:14	EPA 3005A	1,6020A	TT
Selenium, Total	0.008	J	mg/l	0.010	0.002	2	04/08/16 03:00	04/11/16 22:14	EPA 3005A	1,6020A	TT
Silver, Total	ND		mg/l	0.0008	0.0002	2	04/08/16 03:00	04/11/16 22:14	EPA 3005A	1,6020A	TT
Thallium, Total	ND		mg/l	0.0050	0.0006	10	04/08/16 03:00	04/12/16 09:54	EPA 3005A	1,6020A	TT
Zinc, Total	0.0364		mg/l	0.0200	0.0051	2	04/08/16 03:00	04/11/16 22:14	EPA 3005A	1,6020A	TT
Dissolved Metals - Westborough Lab											
Antimony, Dissolved	0.0004	J	mg/l	0.0040	0.0001	2	04/08/16 03:14	04/12/16 13:55	EPA 3005A	1,6020A	TT
Arsenic, Dissolved	0.0030		mg/l	0.0010	0.0002	2	04/08/16 03:14	04/12/16 13:55	EPA 3005A	1,6020A	TT
Barium, Dissolved	0.0358		mg/l	0.0010	0.0001	2	04/08/16 03:14	04/12/16 13:55	EPA 3005A	1,6020A	TT
Beryllium, Dissolved	ND		mg/l	0.0010	0.0003	2	04/08/16 03:14	04/12/16 13:55	EPA 3005A	1,6020A	TT
Cadmium, Dissolved	ND		mg/l	0.0004	0.0001	2	04/08/16 03:14	04/12/16 13:55	EPA 3005A	1,6020A	TT
Chromium, Dissolved	0.0014	J	mg/l	0.0020	0.0005	2	04/08/16 03:14	04/12/16 13:55	EPA 3005A	1,6020A	TT
Copper, Dissolved	0.0024		mg/l	0.0020	0.0005	2	04/08/16 03:14	04/12/16 13:55	EPA 3005A	1,6020A	TT
Lead, Dissolved	0.0005	J	mg/l	0.0020	0.0003	2	04/08/16 03:14	04/12/16 13:55	EPA 3005A	1,6020A	TT
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	04/08/16 13:55	04/11/16 21:22	EPA 7470A	1,7470A	EA
Nickel, Dissolved	0.0038	J	mg/l	0.0060	0.0002	2	04/08/16 03:14	04/12/16 13:55	EPA 3005A	1,6020A	TT
Selenium, Dissolved	ND		mg/l	0.010	0.002	2	04/08/16 03:14	04/12/16 13:55	EPA 3005A	1,6020A	TT
Silver, Dissolved	0.0006	J	mg/l	0.0008	0.0002	2	04/08/16 03:14	04/12/16 13:55	EPA 3005A	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0010	0.0001	2	04/08/16 03:14	04/12/16 13:55	EPA 3005A	1,6020A	TT
Zinc, Dissolved	0.0125	J	mg/l	0.0200	0.0051	2	04/08/16 03:14	04/12/16 13:55	EPA 3005A	1,6020A	TT

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-15
Client ID: DUP-1
Sample Location: STATEN ISLAND, NY
Matrix: Water
Date Collected: 04/06/16 00:00
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	0.0005	J	mg/l	0.0040	0.0001	2	04/08/16 03:00	04/11/16 22:17	EPA 3005A	1,6020A	TT
Arsenic, Total	0.0023		mg/l	0.0010	0.0002	2	04/08/16 03:00	04/11/16 22:17	EPA 3005A	1,6020A	TT
Barium, Total	0.0362		mg/l	0.0010	0.0001	2	04/08/16 03:00	04/11/16 22:17	EPA 3005A	1,6020A	TT
Beryllium, Total	ND		mg/l	0.0010	0.0003	2	04/08/16 03:00	04/11/16 22:17	EPA 3005A	1,6020A	TT
Cadmium, Total	ND		mg/l	0.0004	0.0001	2	04/08/16 03:00	04/11/16 22:17	EPA 3005A	1,6020A	TT
Chromium, Total	0.0018	J	mg/l	0.0020	0.0005	2	04/08/16 03:00	04/11/16 22:17	EPA 3005A	1,6020A	TT
Copper, Total	0.0055		mg/l	0.0020	0.0005	2	04/08/16 03:00	04/11/16 22:17	EPA 3005A	1,6020A	TT
Lead, Total	0.0061	J	mg/l	0.0100	0.0013	10	04/08/16 03:00	04/12/16 10:03	EPA 3005A	1,6020A	TT
Mercury, Total	ND		mg/l	0.00020	0.00006	1	04/08/16 12:03	04/11/16 18:15	EPA 7470A	1,7470A	EA
Nickel, Total	ND		mg/l	0.0060	0.0002	2	04/08/16 03:00	04/11/16 22:17	EPA 3005A	1,6020A	TT
Selenium, Total	0.004	J	mg/l	0.010	0.002	2	04/08/16 03:00	04/11/16 22:17	EPA 3005A	1,6020A	TT
Silver, Total	ND		mg/l	0.0008	0.0002	2	04/08/16 03:00	04/11/16 22:17	EPA 3005A	1,6020A	TT
Thallium, Total	ND		mg/l	0.0050	0.0006	10	04/08/16 03:00	04/12/16 10:03	EPA 3005A	1,6020A	TT
Zinc, Total	0.0331		mg/l	0.0200	0.0051	2	04/08/16 03:00	04/11/16 22:17	EPA 3005A	1,6020A	TT
Dissolved Metals - Westborough Lab											
Antimony, Dissolved	0.0003	J	mg/l	0.0040	0.0001	2	04/08/16 03:14	04/12/16 13:59	EPA 3005A	1,6020A	TT
Arsenic, Dissolved	0.0017		mg/l	0.0010	0.0002	2	04/08/16 03:14	04/12/16 13:59	EPA 3005A	1,6020A	TT
Barium, Dissolved	0.0327		mg/l	0.0010	0.0001	2	04/08/16 03:14	04/12/16 13:59	EPA 3005A	1,6020A	TT
Beryllium, Dissolved	ND		mg/l	0.0010	0.0003	2	04/08/16 03:14	04/12/16 13:59	EPA 3005A	1,6020A	TT
Cadmium, Dissolved	ND		mg/l	0.0004	0.0001	2	04/08/16 03:14	04/12/16 13:59	EPA 3005A	1,6020A	TT
Chromium, Dissolved	0.0011	J	mg/l	0.0020	0.0005	2	04/08/16 03:14	04/12/16 13:59	EPA 3005A	1,6020A	TT
Copper, Dissolved	0.0022		mg/l	0.0020	0.0005	2	04/08/16 03:14	04/12/16 13:59	EPA 3005A	1,6020A	TT
Lead, Dissolved	ND		mg/l	0.0020	0.0003	2	04/08/16 03:14	04/12/16 13:59	EPA 3005A	1,6020A	TT
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	04/08/16 13:55	04/11/16 21:24	EPA 7470A	1,7470A	EA
Nickel, Dissolved	0.0033	J	mg/l	0.0060	0.0002	2	04/08/16 03:14	04/12/16 13:59	EPA 3005A	1,6020A	TT
Selenium, Dissolved	ND		mg/l	0.010	0.002	2	04/08/16 03:14	04/12/16 13:59	EPA 3005A	1,6020A	TT
Silver, Dissolved	0.0004	J	mg/l	0.0008	0.0002	2	04/08/16 03:14	04/12/16 13:59	EPA 3005A	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0010	0.0001	2	04/08/16 03:14	04/12/16 13:59	EPA 3005A	1,6020A	TT
Zinc, Dissolved	0.0105	J	mg/l	0.0200	0.0051	2	04/08/16 03:14	04/12/16 13:59	EPA 3005A	1,6020A	TT

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-16
Client ID: DUP-2
Sample Location: STATEN ISLAND, NY
Matrix: Water
Date Collected: 04/06/16 00:00
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	0.0005	J	mg/l	0.0040	0.0001	2	04/08/16 03:00	04/11/16 22:33	EPA 3005A	1,6020A	TT
Arsenic, Total	0.0024		mg/l	0.0010	0.0002	2	04/08/16 03:00	04/11/16 22:33	EPA 3005A	1,6020A	TT
Barium, Total	0.0428		mg/l	0.0010	0.0001	2	04/08/16 03:00	04/11/16 22:33	EPA 3005A	1,6020A	TT
Beryllium, Total	ND		mg/l	0.0010	0.0003	2	04/08/16 03:00	04/11/16 22:33	EPA 3005A	1,6020A	TT
Cadmium, Total	ND		mg/l	0.0004	0.0001	2	04/08/16 03:00	04/11/16 22:33	EPA 3005A	1,6020A	TT
Chromium, Total	0.0023		mg/l	0.0020	0.0005	2	04/08/16 03:00	04/11/16 22:33	EPA 3005A	1,6020A	TT
Copper, Total	0.0074		mg/l	0.0020	0.0005	2	04/08/16 03:00	04/11/16 22:33	EPA 3005A	1,6020A	TT
Lead, Total	0.0074	J	mg/l	0.0100	0.0013	10	04/08/16 03:00	04/12/16 10:06	EPA 3005A	1,6020A	TT
Mercury, Total	ND		mg/l	0.00020	0.00006	1	04/08/16 12:03	04/11/16 18:16	EPA 7470A	1,7470A	EA
Nickel, Total	ND		mg/l	0.0060	0.0002	2	04/08/16 03:00	04/11/16 22:33	EPA 3005A	1,6020A	TT
Selenium, Total	ND		mg/l	0.010	0.002	2	04/08/16 03:00	04/11/16 22:33	EPA 3005A	1,6020A	TT
Silver, Total	ND		mg/l	0.0040	0.0008	10	04/08/16 03:00	04/12/16 10:06	EPA 3005A	1,6020A	TT
Thallium, Total	ND		mg/l	0.0050	0.0006	10	04/08/16 03:00	04/12/16 10:06	EPA 3005A	1,6020A	TT
Zinc, Total	0.0576		mg/l	0.0200	0.0051	2	04/08/16 03:00	04/11/16 22:33	EPA 3005A	1,6020A	TT
Dissolved Metals - Westborough Lab											
Antimony, Dissolved	0.0007	J	mg/l	0.0040	0.0001	2	04/08/16 03:14	04/12/16 14:02	EPA 3005A	1,6020A	TT
Arsenic, Dissolved	0.0017		mg/l	0.0010	0.0002	2	04/08/16 03:14	04/12/16 14:02	EPA 3005A	1,6020A	TT
Barium, Dissolved	0.0410		mg/l	0.0010	0.0001	2	04/08/16 03:14	04/12/16 14:02	EPA 3005A	1,6020A	TT
Beryllium, Dissolved	ND		mg/l	0.0010	0.0003	2	04/08/16 03:14	04/12/16 14:02	EPA 3005A	1,6020A	TT
Cadmium, Dissolved	ND		mg/l	0.0004	0.0001	2	04/08/16 03:14	04/12/16 14:02	EPA 3005A	1,6020A	TT
Chromium, Dissolved	0.0008	J	mg/l	0.0020	0.0005	2	04/08/16 03:14	04/12/16 14:02	EPA 3005A	1,6020A	TT
Copper, Dissolved	0.0016	J	mg/l	0.0020	0.0005	2	04/08/16 03:14	04/12/16 14:02	EPA 3005A	1,6020A	TT
Lead, Dissolved	0.0004	J	mg/l	0.0020	0.0003	2	04/08/16 03:14	04/12/16 14:02	EPA 3005A	1,6020A	TT
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	04/08/16 13:55	04/11/16 21:26	EPA 7470A	1,7470A	EA
Nickel, Dissolved	0.0030	J	mg/l	0.0060	0.0002	2	04/08/16 03:14	04/12/16 14:02	EPA 3005A	1,6020A	TT
Selenium, Dissolved	0.004	J	mg/l	0.010	0.002	2	04/08/16 03:14	04/12/16 14:02	EPA 3005A	1,6020A	TT
Silver, Dissolved	0.0004	J	mg/l	0.0008	0.0002	2	04/08/16 03:14	04/12/16 14:02	EPA 3005A	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0010	0.0001	2	04/08/16 03:14	04/12/16 14:02	EPA 3005A	1,6020A	TT
Zinc, Dissolved	0.0116	J	mg/l	0.0200	0.0051	2	04/08/16 03:14	04/12/16 14:02	EPA 3005A	1,6020A	TT

Project Name: PORT IVORY **Lab Number:** L1610064

Project Number: P11955502 **Report Date:** 04/14/16

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Westborough Lab for sample(s): 01-04,06-16 Batch: WG881520-1										
Antimony, Dissolved	ND		mg/l	0.0020	0.0001	1	04/08/16 03:14	04/12/16 12:29	1,6020A	TT
Arsenic, Dissolved	ND		mg/l	0.0005	0.0001	1	04/08/16 03:14	04/12/16 12:29	1,6020A	TT
Barium, Dissolved	0.0001	J	mg/l	0.0005	0.0001	1	04/08/16 03:14	04/12/16 12:29	1,6020A	TT
Beryllium, Dissolved	ND		mg/l	0.0005	0.0002	1	04/08/16 03:14	04/12/16 12:29	1,6020A	TT
Cadmium, Dissolved	ND		mg/l	0.0002	0.0001	1	04/08/16 03:14	04/12/16 12:29	1,6020A	TT
Chromium, Dissolved	ND		mg/l	0.0010	0.0003	1	04/08/16 03:14	04/12/16 12:29	1,6020A	TT
Copper, Dissolved	ND		mg/l	0.0010	0.0003	1	04/08/16 03:14	04/12/16 12:29	1,6020A	TT
Lead, Dissolved	ND		mg/l	0.0010	0.0001	1	04/08/16 03:14	04/12/16 12:29	1,6020A	TT
Nickel, Dissolved	0.0009	J	mg/l	0.0030	0.0001	1	04/08/16 03:14	04/12/16 12:29	1,6020A	TT
Selenium, Dissolved	ND		mg/l	0.005	0.001	1	04/08/16 03:14	04/12/16 12:29	1,6020A	TT
Silver, Dissolved	ND		mg/l	0.0004	0.0001	1	04/08/16 03:14	04/12/16 12:29	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0005	0.0001	1	04/08/16 03:14	04/12/16 12:29	1,6020A	TT
Zinc, Dissolved	ND		mg/l	0.0100	0.0026	1	04/08/16 03:14	04/12/16 12:29	1,6020A	TT

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-04,06-16 Batch: WG881522-1										
Antimony, Total	ND		mg/l	0.0020	0.0001	1	04/08/16 03:00	04/11/16 21:12	1,6020A	TT
Arsenic, Total	ND		mg/l	0.0005	0.0001	1	04/08/16 03:00	04/11/16 21:12	1,6020A	TT
Barium, Total	0.0001	J	mg/l	0.0005	0.0001	1	04/08/16 03:00	04/11/16 21:12	1,6020A	TT
Beryllium, Total	ND		mg/l	0.0005	0.0002	1	04/08/16 03:00	04/11/16 21:12	1,6020A	TT
Cadmium, Total	ND		mg/l	0.0002	0.0001	1	04/08/16 03:00	04/11/16 21:12	1,6020A	TT
Chromium, Total	ND		mg/l	0.0010	0.0003	1	04/08/16 03:00	04/11/16 21:12	1,6020A	TT
Copper, Total	ND		mg/l	0.0010	0.0003	1	04/08/16 03:00	04/11/16 21:12	1,6020A	TT
Lead, Total	ND		mg/l	0.0010	0.0001	1	04/08/16 03:00	04/11/16 21:12	1,6020A	TT
Nickel, Total	ND		mg/l	0.0030	0.0001	1	04/08/16 03:00	04/11/16 21:12	1,6020A	TT
Selenium, Total	ND		mg/l	0.005	0.001	1	04/08/16 03:00	04/11/16 21:12	1,6020A	TT
Silver, Total	ND		mg/l	0.0004	0.0001	1	04/08/16 03:00	04/11/16 21:12	1,6020A	TT
Thallium, Total	ND		mg/l	0.0005	0.0001	1	04/08/16 03:00	04/11/16 21:12	1,6020A	TT
Zinc, Total	ND		mg/l	0.0100	0.0026	1	04/08/16 03:00	04/11/16 21:12	1,6020A	TT

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Method Blank Analysis
Batch Quality Control

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-04,06-16 Batch: WG881710-1										
Mercury, Total	ND		mg/l	0.00020	0.00006	1	04/08/16 12:03	04/11/16 17:26	1,7470A	EA

Prep Information

Digestion Method: EPA 7470A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Westborough Lab for sample(s): 01-04,06-16 Batch: WG881764-1										
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	04/08/16 13:55	04/11/16 18:18	1,7470A	EA

Prep Information

Digestion Method: EPA 7470A

Lab Control Sample Analysis

Batch Quality Control

Project Name: PORT IVORY

Project Number: P11955502

Lab Number: L1610064

Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Dissolved Metals - Westborough Lab Associated sample(s): 01-04,06-16 Batch: WG881520-2								
Antimony, Dissolved	97		-		80-120	-		
Arsenic, Dissolved	102		-		80-120	-		
Barium, Dissolved	101		-		80-120	-		
Beryllium, Dissolved	95		-		80-120	-		
Cadmium, Dissolved	104		-		80-120	-		
Chromium, Dissolved	99		-		80-120	-		
Copper, Dissolved	97		-		80-120	-		
Lead, Dissolved	101		-		80-120	-		
Nickel, Dissolved	101		-		80-120	-		
Selenium, Dissolved	106		-		80-120	-		
Silver, Dissolved	89		-		80-120	-		
Thallium, Dissolved	102		-		80-120	-		
Zinc, Dissolved	95		-		80-120	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: PORT IVORY

Project Number: P11955502

Lab Number: L1610064

Report Date: 04/14/16

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04,06-16 Batch: WG881522-2					
Antimony, Total	88	-	80-120	-	
Arsenic, Total	99	-	80-120	-	
Barium, Total	93	-	80-120	-	
Beryllium, Total	95	-	80-120	-	
Cadmium, Total	98	-	80-120	-	
Chromium, Total	90	-	80-120	-	
Copper, Total	92	-	80-120	-	
Lead, Total	101	-	80-120	-	
Nickel, Total	96	-	80-120	-	
Selenium, Total	110	-	80-120	-	
Silver, Total	82	-	80-120	-	
Thallium, Total	98	-	80-120	-	
Zinc, Total	86	-	80-120	-	
Total Metals - Westborough Lab Associated sample(s): 01-04,06-16 Batch: WG881710-2					
Mercury, Total	98	-	80-120	-	
Dissolved Metals - Westborough Lab Associated sample(s): 01-04,06-16 Batch: WG881764-2					
Mercury, Dissolved	108	-	80-120	-	

Matrix Spike Analysis
Batch Quality Control

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Dissolved Metals - Westborough Lab Associated sample(s): 01-04,06-16 QC Batch ID: WG881520-4 WG881520-5 QC Sample: L1610064-10 Client ID: PRW-07												
Antimony, Dissolved	0.0015J	0.5	0.2596	**52**	Q	0.0877	**18**	Q	75-125	**99**	Q	20
Arsenic, Dissolved	0.0015	0.12	0.0573	**46**	Q	0.0573	**46**	Q	75-125	0		20
Barium, Dissolved	0.0326	2	2.042	100		2.072	102		75-125	1		20
Beryllium, Dissolved	ND	0.05	0.0443	88		0.0455	91		75-125	3		20
Cadmium, Dissolved	ND	0.051	0.0519	102		0.0509	100		75-125	2		20
Chromium, Dissolved	0.0017J	0.2	0.1891	94		0.1952	98		75-125	3		20
Copper, Dissolved	ND	0.25	0.0707	**28**	Q	0.0458	**18**	Q	75-125	**43**	Q	20
Lead, Dissolved	ND	0.51	0.4783	94		0.4814	94		75-125	1		20
Nickel, Dissolved	0.0116	0.5	0.4858	95		0.5253	103		75-125	8		20
Selenium, Dissolved	0.005J	0.12	ND	**0**	Q	ND	**0**	Q	75-125	NC		20
Silver, Dissolved	ND	0.05	0.0045	**9**	Q	0.0070	**14**	Q	75-125	**42**	Q	20
Thallium, Dissolved	ND	0.12	0.1130	94		0.1162	97		75-125	3		20
Zinc, Dissolved	ND	0.5	0.4777	96		0.5040	101		75-125	5		20

Matrix Spike Analysis
Batch Quality Control

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery		MSD Found	MSD %Recovery		Recovery Limits	RPD		RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-04,06-16 QC Batch ID: WG881522-4 WG881522-5 QC Sample: L1610064-10 Client ID: PRW-07												
Antimony, Total	0.0005J	0.5	0.0592	**12**	Q	0.0710	**14**	Q	75-125	18		20
Arsenic, Total	0.0016	0.12	0.0339	**27**	Q	0.0420	**34**	Q	75-125	**21**	Q	20
Barium, Total	0.0282	2	1.864	92		1.972	97		75-125	6		20
Beryllium, Total	ND	0.05	0.0480	96		0.0492	98		75-125	2		20
Cadmium, Total	ND	0.051	0.0451	88		0.0511	100		75-125	13		20
Chromium, Total	0.0015J	0.2	0.1878	94		0.1870	94		75-125	0		20
Copper, Total	ND	0.25	0.0137	**6**	Q	0.0312	**12**	Q	75-125	**78**	Q	20
Lead, Total	ND	0.51	0.4763	93		0.5093	100		75-125	7		20
Nickel, Total	0.0160	0.5	0.4776	92		0.5616	109		75-125	16		20
Selenium, Total	0.005J	0.12	0.033	**27**	Q	0.030	**24**	Q	75-125	10		20
Silver, Total	ND	0.05	0.0024	**5**	Q	0.0001	**0**	Q	75-125	NC		20
Thallium, Total	ND	0.12	0.1134	94		0.1216	101		75-125	7		20
Zinc, Total	ND	0.5	0.3777	76		0.4057	81		75-125	7		20
Total Metals - Westborough Lab Associated sample(s): 01-04,06-16 QC Batch ID: WG881710-3 WG881710-4 QC Sample: L1610064-10 Client ID: PRW-07												
Mercury, Total	ND	0.005	0.00354	**71**	Q	0.00360	**72**	Q	75-125	2		20
Dissolved Metals - Westborough Lab Associated sample(s): 01-04,06-16 QC Batch ID: WG881764-3 WG881764-4 QC Sample: L1610064-10 Client ID: PRW-07												
Mercury, Dissolved	ND	0.005	0.00456	91		0.00443	89		75-125	3		20

INORGANICS
&
MISCELLANEOUS

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-01
Client ID: PRW-02
Sample Location: STATEN ISLAND, NY
Matrix: Water

Date Collected: 04/06/16 11:27
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.061		mg/l	0.005	0.001	1	04/08/16 10:06	04/08/16 16:46	1,9010C/9012B	JO

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-02
Client ID: PRW-06
Sample Location: STATEN ISLAND, NY
Matrix: Water

Date Collected: 04/06/16 12:46
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.003	J	mg/l	0.005	0.001	1	04/08/16 10:06	04/08/16 16:47	1,9010C/9012B	JO

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-03
Client ID: PRW-01
Sample Location: STATEN ISLAND, NY
Matrix: Water

Date Collected: 04/06/16 14:12
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.009		mg/l	0.005	0.001	1	04/08/16 10:06	04/08/16 16:47	1,9010C/9012B	JO

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-04
Client ID: FIELD BLANK
Sample Location: STATEN ISLAND, NY
Matrix: Water

Date Collected: 04/06/16 10:30
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND		mg/l	0.005	0.001	1	04/08/16 10:06	04/08/16 16:48	1,9010C/9012B	JO

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-06
Client ID: SW-3
Sample Location: STATEN ISLAND, NY
Matrix: Water

Date Collected: 04/06/16 15:30
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND		mg/l	0.005	0.001	1	04/08/16 10:06	04/08/16 16:49	1,9010C/9012B	JO

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-07
Client ID: SW-2
Sample Location: STATEN ISLAND, NY
Matrix: Water

Date Collected: 04/06/16 16:00
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.002	J	mg/l	0.005	0.001	1	04/08/16 10:06	04/08/16 16:51	1,9010C/9012B	JO

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-08
Client ID: SW-1
Sample Location: STATEN ISLAND, NY
Matrix: Water

Date Collected: 04/06/16 16:30
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND		mg/l	0.005	0.001	1	04/08/16 10:06	04/08/16 16:52	1,9010C/9012B	JO

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-09
Client ID: PRW-11
Sample Location: STATEN ISLAND, NY
Matrix: Water

Date Collected: 04/06/16 10:07
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.002	J	mg/l	0.005	0.001	1	04/08/16 10:06	04/08/16 16:53	1,9010C/9012B	JO

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-10
Client ID: PRW-07
Sample Location: STATEN ISLAND, NY
Matrix: Water

Date Collected: 04/06/16 11:17
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.003	J	mg/l	0.005	0.001	1	04/08/16 10:06	04/08/16 16:54	1,9010C/9012B	JO

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-11
Client ID: PRW-04
Sample Location: STATEN ISLAND, NY
Matrix: Water

Date Collected: 04/06/16 13:07
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.002	J	mg/l	0.005	0.001	1	04/08/16 15:44	04/11/16 13:07	1,9010C/9012B	JO

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-12
Client ID: PRW-03
Sample Location: STATEN ISLAND, NY
Matrix: Water

Date Collected: 04/06/16 14:22
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.076		mg/l	0.005	0.001	1	04/08/16 15:44	04/11/16 13:09	1,9010C/9012B	JO

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-13
Client ID: SW-4
Sample Location: STATEN ISLAND, NY
Matrix: Water

Date Collected: 04/06/16 16:40
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.001	J	mg/l	0.005	0.001	1	04/08/16 15:44	04/11/16 13:30	1,9010C/9012B	JO

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-14
Client ID: SW-5
Sample Location: STATEN ISLAND, NY
Matrix: Water

Date Collected: 04/06/16 15:40
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.002	J	mg/l	0.005	0.001	1	04/08/16 15:44	04/11/16 13:12	1,9010C/9012B	JO

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-15
Client ID: DUP-1
Sample Location: STATEN ISLAND, NY
Matrix: Water

Date Collected: 04/06/16 00:00
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND		mg/l	0.005	0.001	1	04/08/16 15:44	04/11/16 13:13	1,9010C/9012B	JO

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610064-16
Client ID: DUP-2
Sample Location: STATEN ISLAND, NY
Matrix: Water

Date Collected: 04/06/16 00:00
Date Received: 04/06/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.003	J	mg/l	0.005	0.001	1	04/08/16 15:44	04/11/16 13:31	1,9010C/9012B	JO

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
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Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-04,06-10 Batch: WG881626-1										
Cyanide, Total	ND		mg/l	0.005	0.001	1	04/08/16 10:06	04/08/16 16:42	1,9010C/9012B	JO
General Chemistry - Westborough Lab for sample(s): 11-16 Batch: WG881697-1										
Cyanide, Total	0.002	J	mg/l	0.005	0.001	1	04/08/16 15:44	04/11/16 13:02	1,9010C/9012B	JO

Lab Control Sample Analysis

Batch Quality Control

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Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-04,06-10 Batch: WG881626-2 WG881626-3								
Cyanide, Total	89		91		85-115	8		20
General Chemistry - Westborough Lab Associated sample(s): 11-16 Batch: WG881697-2 WG881697-3								
Cyanide, Total	89		86		85-115	3		20

Matrix Spike Analysis
Batch Quality Control

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Lab Number: L1610064
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Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-04,06-10 QC Batch ID: WG881626-4 WG881626-5 QC Sample: L1610064-10 Client ID: PRW-07												
Cyanide, Total	0.003J	0.2	0.164	82		0.172	86		80-120	5		20
General Chemistry - Westborough Lab Associated sample(s): 11-16 QC Batch ID: WG881697-4 WG881697-5 QC Sample: L1610064-11 Client ID: PRW-04												
Cyanide, Total	0.002J	0.2	0.190	95		0.197	98		80-120	4		20

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Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information	Custody Seal
Cooler	
A	Absent
D	Absent
I	Absent
B	Absent
C	Absent
E	Absent
H	Absent
F	Absent
G	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1610064-01A	Vial HCl preserved	D	N/A	1.9	Y	Absent	NYTCL-8260(14)
L1610064-01B	Vial HCl preserved	D	N/A	1.9	Y	Absent	NYTCL-8260(14)
L1610064-01C	Vial HCl preserved	D	N/A	1.9	Y	Absent	NYTCL-8260(14)
L1610064-01D	Plastic 500ml HNO3 preserved	D	<2	1.9	Y	Absent	BA-6020T(180),SE-6020T(180),TL-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180),HG-T(28)
L1610064-01E	Plastic 500ml HNO3 preserved	D	<2	1.9	Y	Absent	CU-6020S(180),SE-6020S(180),BE-6020S(180),ZN-6020S(180),CR-6020S(180),BA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),CD-6020S(180),HG-S(28)
L1610064-01F	Plastic 250ml NaOH preserved	D	>12	1.9	Y	Absent	TCN-9010(14)
L1610064-01G	Amber 500ml unpreserved	D	7	1.9	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610064-01H	Amber 500ml unpreserved	D	7	1.9	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610064-01I	Amber 1000ml unpreserved	D	7	1.9	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610064-01J	Amber 1000ml unpreserved	D	7	1.9	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610064-01K	Amber 1000ml unpreserved	D	7	1.9	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610064-01L	Amber 1000ml unpreserved	D	7	1.9	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)

*Values in parentheses indicate holding time in days

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Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1610064-02A	Vial HCl preserved	D	N/A	1.9	Y	Absent	NYTCL-8260(14)
L1610064-02B	Vial HCl preserved	D	N/A	1.9	Y	Absent	NYTCL-8260(14)
L1610064-02C	Vial HCl preserved	D	N/A	1.9	Y	Absent	NYTCL-8260(14)
L1610064-02D	Plastic 500ml HNO3 preserved	D	<2	1.9	Y	Absent	BA-6020T(180),SE-6020T(180),TL-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180),HG-T(28)
L1610064-02E	Plastic 500ml HNO3 preserved	D	<2	1.9	Y	Absent	CU-6020S(180),SE-6020S(180),BE-6020S(180),ZN-6020S(180),CR-6020S(180),BA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),CD-6020S(180),HG-S(28)
L1610064-02F	Plastic 250ml NaOH preserved	D	>12	1.9	Y	Absent	TCN-9010(14)
L1610064-02G	Amber 500ml unpreserved	D	7	1.9	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610064-02H	Amber 500ml unpreserved	D	7	1.9	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610064-02I	Amber 1000ml unpreserved	D	7	1.9	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610064-02J	Amber 1000ml unpreserved	D	7	1.9	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610064-02K	Amber 1000ml unpreserved	D	7	1.9	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610064-02L	Amber 1000ml unpreserved	D	7	1.9	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610064-03A	Vial HCl preserved	H	N/A	3.9	Y	Absent	NYTCL-8260(14)
L1610064-03B	Vial HCl preserved	H	N/A	3.9	Y	Absent	NYTCL-8260(14)
L1610064-03C	Vial HCl preserved	H	N/A	3.9	Y	Absent	NYTCL-8260(14)
L1610064-03D	Plastic 500ml HNO3 preserved	H	<2	3.9	Y	Absent	BA-6020T(180),SE-6020T(180),TL-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180),HG-T(28)
L1610064-03E	Plastic 500ml HNO3 preserved	H	<2	3.9	Y	Absent	CU-6020S(180),SE-6020S(180),BE-6020S(180),ZN-6020S(180),CR-6020S(180),BA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),CD-6020S(180),HG-S(28)
L1610064-03F	Plastic 250ml NaOH preserved	H	>12	3.9	Y	Absent	TCN-9010(14)
L1610064-03G	Amber 500ml unpreserved	H	7	3.9	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610064-03H	Amber 500ml unpreserved	H	7	3.9	Y	Absent	HOLD-8081(7),L-EXT-8081(7)

*Values in parentheses indicate holding time in days

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Lab Number: L1610064
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Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1610064-03I	Amber 1000ml unpreserved	H	7	3.9	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610064-03J	Amber 1000ml unpreserved	H	7	3.9	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610064-03K	Amber 1000ml unpreserved	H	7	3.9	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610064-03L	Amber 1000ml unpreserved	H	7	3.9	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610064-04A	Vial HCl preserved	H	N/A	3.9	Y	Absent	NYTCL-8260(14)
L1610064-04B	Vial HCl preserved	H	N/A	3.9	Y	Absent	NYTCL-8260(14)
L1610064-04C	Vial HCl preserved	H	N/A	3.9	Y	Absent	NYTCL-8260(14)
L1610064-04D	Plastic 500ml HNO3 preserved	H	<2	3.9	Y	Absent	BA-6020T(180),SE-6020T(180),TL-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180),HG-T(28)
L1610064-04E	Plastic 500ml HNO3 preserved	H	<2	3.9	Y	Absent	CU-6020S(180),SE-6020S(180),BE-6020S(180),ZN-6020S(180),CR-6020S(180),BA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),CD-6020S(180),HG-S(28)
L1610064-04F	Plastic 250ml NaOH preserved	H	>12	3.9	Y	Absent	TCN-9010(14)
L1610064-04G	Amber 500ml unpreserved	H	8	3.9	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610064-04H	Amber 500ml unpreserved	H	8	3.9	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610064-04I	Amber 1000ml unpreserved	H	8	3.9	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610064-04J	Amber 1000ml unpreserved	H	8	3.9	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610064-04K	Amber 1000ml unpreserved	H	8	3.9	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610064-04L	Amber 1000ml unpreserved	H	8	3.9	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610064-05A	Vial HCl preserved	A	N/A	4.3	Y	Absent	NYTCL-8260(14)
L1610064-05B	Vial HCl preserved	A	N/A	4.3	Y	Absent	NYTCL-8260(14)
L1610064-06A	Vial HCl preserved	F	N/A	3.6	Y	Absent	NYTCL-8260(14)
L1610064-06B	Vial HCl preserved	F	N/A	3.6	Y	Absent	NYTCL-8260(14)
L1610064-06C	Vial HCl preserved	F	N/A	3.6	Y	Absent	NYTCL-8260(14)
L1610064-06D	Plastic 500ml HNO3 preserved	F	<2	3.6	Y	Absent	BA-6020T(180),SE-6020T(180),TL-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180),HG-T(28)

*Values in parentheses indicate holding time in days

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Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1610064-06E	Plastic 500ml HNO3 preserved	F	<2	3.6	Y	Absent	CU-6020S(180),SE-6020S(180),BE-6020S(180),ZN-6020S(180),CR-6020S(180),BA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),CD-6020S(180),HG-S(28)
L1610064-06F	Plastic 250ml NaOH preserved	F	>12	3.6	Y	Absent	TCN-9010(14)
L1610064-06G	Amber 500ml unpreserved	F	8	3.6	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610064-06H	Amber 500ml unpreserved	F	8	3.6	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610064-06I	Amber 1000ml unpreserved	F	8	3.6	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610064-06J	Amber 1000ml unpreserved	F	8	3.6	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610064-06K	Amber 1000ml unpreserved	F	8	3.6	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610064-06L	Amber 1000ml unpreserved	F	8	3.6	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610064-07A	Vial HCl preserved	E	N/A	2.1	Y	Absent	NYTCL-8260(14)
L1610064-07B	Vial HCl preserved	E	N/A	2.1	Y	Absent	NYTCL-8260(14)
L1610064-07C	Vial HCl preserved	E	N/A	2.1	Y	Absent	NYTCL-8260(14)
L1610064-07D	Plastic 500ml HNO3 preserved	E	<2	2.1	Y	Absent	BA-6020T(180),SE-6020T(180),TL-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180),HG-T(28)
L1610064-07E	Plastic 500ml HNO3 preserved	E	<2	2.1	Y	Absent	CU-6020S(180),SE-6020S(180),BE-6020S(180),ZN-6020S(180),CR-6020S(180),BA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),CD-6020S(180),HG-S(28)
L1610064-07F	Plastic 250ml NaOH preserved	E	>12	2.1	Y	Absent	TCN-9010(14)
L1610064-07G	Amber 500ml unpreserved	E	7	2.1	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610064-07H	Amber 500ml unpreserved	E	7	2.1	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610064-07I	Amber 1000ml unpreserved	E	7	2.1	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610064-07J	Amber 1000ml unpreserved	E	7	2.1	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610064-07K	Amber 1000ml unpreserved	E	7	2.1	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610064-07L	Amber 1000ml unpreserved	E	7	2.1	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610064-08A	Vial HCl preserved	E	N/A	2.1	Y	Absent	NYTCL-8260(14)
L1610064-08B	Vial HCl preserved	E	N/A	2.1	Y	Absent	NYTCL-8260(14)
L1610064-08C	Vial HCl preserved	E	N/A	2.1	Y	Absent	NYTCL-8260(14)

*Values in parentheses indicate holding time in days

Project Name: PORT IVORY
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Lab Number: L1610064
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Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1610064-08D	Plastic 250ml HNO3 preserved spl	E	<2	2.1	Y	Absent	BA-6020T(180),SE-6020T(180),TL-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180),HG-T(28)
L1610064-08E	Plastic 500ml HNO3 preserved	E	<2	2.1	Y	Absent	CU-6020S(180),SE-6020S(180),BE-6020S(180),ZN-6020S(180),CR-6020S(180),BA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),CD-6020S(180),HG-S(28)
L1610064-08F	Plastic 250ml NaOH preserved	E	>12	2.1	Y	Absent	TCN-9010(14)
L1610064-08G	Amber 500ml unpreserved	E	7	2.1	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610064-08H	Amber 500ml unpreserved	E	7	2.1	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610064-08I	Amber 1000ml unpreserved	E	7	2.1	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610064-08J	Amber 1000ml unpreserved	E	7	2.1	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610064-08K	Amber 1000ml unpreserved	E	7	2.1	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610064-08L	Amber 1000ml unpreserved	E	7	2.1	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610064-09A	Vial HCl preserved	B	N/A	2.1	Y	Absent	NYTCL-8260(14)
L1610064-09B	Vial HCl preserved	B	N/A	2.1	Y	Absent	NYTCL-8260(14)
L1610064-09C	Vial HCl preserved	B	N/A	2.1	Y	Absent	NYTCL-8260(14)
L1610064-09D	Plastic 500ml HNO3 preserved	B	<2	2.1	Y	Absent	BA-6020T(180),SE-6020T(180),TL-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180),HG-T(28)
L1610064-09E	Plastic 500ml HNO3 preserved	B	<2	2.1	Y	Absent	CU-6020S(180),SE-6020S(180),BE-6020S(180),ZN-6020S(180),CR-6020S(180),BA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),CD-6020S(180),HG-S(28)
L1610064-09F	Plastic 250ml NaOH preserved	B	>12	2.1	Y	Absent	TCN-9010(14)
L1610064-09G	Amber 500ml unpreserved	B	9	2.1	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610064-09H	Amber 500ml unpreserved	B	9	2.1	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610064-09I	Amber 1000ml unpreserved	B	9	2.1	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610064-09J	Amber 1000ml unpreserved	B	9	2.1	Y	Absent	L-EXT-8082(7),HOLD-8082()

*Values in parentheses indicate holding time in days

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Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1610064-09K	Amber 1000ml unpreserved	B	9	2.1	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610064-09L	Amber 1000ml unpreserved	B	9	2.1	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610064-10A	Vial HCl preserved	C	N/A	5.3	Y	Absent	NYTCL-8260(14)
L1610064-10A1	Vial HCl preserved	C	N/A	5.3	Y	Absent	NYTCL-8260(14)
L1610064-10A2	Vial HCl preserved	B	N/A	2.1	Y	Absent	NYTCL-8260(14)
L1610064-10B	Vial HCl preserved	C	N/A	5.3	Y	Absent	NYTCL-8260(14)
L1610064-10B1	Vial HCl preserved	C	N/A	5.3	Y	Absent	NYTCL-8260(14)
L1610064-10B2	Vial HCl preserved	B	N/A	2.1	Y	Absent	NYTCL-8260(14)
L1610064-10C	Vial HCl preserved	C	N/A	5.3	Y	Absent	NYTCL-8260(14)
L1610064-10C1	Vial HCl preserved	C	N/A	5.3	Y	Absent	NYTCL-8260(14)
L1610064-10C2	Vial HCl preserved	B	N/A	2.1	Y	Absent	NYTCL-8260(14)
L1610064-10D	Plastic 500ml HNO3 preserved	C	<2	5.3	Y	Absent	BA-6020T(180),SE-6020T(180),TL-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180),HG-T(28)
L1610064-10D1	Plastic 500ml HNO3 preserved	C	<2	5.3	Y	Absent	BA-6020T(180),SE-6020T(180),TL-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180),HG-T(28)
L1610064-10D2	Plastic 500ml HNO3 preserved	B	<2	2.1	Y	Absent	BA-6020T(180),SE-6020T(180),TL-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180),HG-T(28)
L1610064-10E	Plastic 500ml HNO3 preserved	C	<2	5.3	Y	Absent	CU-6020S(180),SE-6020S(180),BE-6020S(180),ZN-6020S(180),CR-6020S(180),BA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),CD-6020S(180),HG-S(28)
L1610064-10E1	Plastic 500ml HNO3 preserved	C	<2	5.3	Y	Absent	CU-6020S(180),SE-6020S(180),BE-6020S(180),ZN-6020S(180),CR-6020S(180),BA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),CD-6020S(180),HG-S(28)

*Values in parentheses indicate holding time in days

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1610064-10E2	Plastic 500ml HNO3 preserved	B	<2	2.1	Y	Absent	CU-6020S(180),SE-6020S(180),BE-6020S(180),ZN-6020S(180),CR-6020S(180),BA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),CD-6020S(180),HG-S(28)
L1610064-10F	Plastic 250ml NaOH preserved	C	>12	5.3	Y	Absent	TCN-9010(14)
L1610064-10F1	Plastic 250ml NaOH preserved	C	>12	5.3	Y	Absent	TCN-9010(14)
L1610064-10F2	Plastic 250ml NaOH preserved	B	>12	2.1	Y	Absent	TCN-9010(14)
L1610064-10G	Amber 500ml unpreserved	C	8	5.3	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610064-10G1	Amber 500ml unpreserved	C	8	5.3	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610064-10G2	Amber 500ml unpreserved	B	8	2.1	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610064-10H	Amber 500ml unpreserved	C	8	5.3	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610064-10H1	Amber 500ml unpreserved	C	8	5.3	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610064-10H2	Amber 500ml unpreserved	B	8	2.1	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610064-10I	Amber 1000ml unpreserved	C	8	5.3	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610064-10I1	Amber 1000ml unpreserved	C	8	5.3	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610064-10I2	Amber 1000ml unpreserved	B	8	2.1	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610064-10J	Amber 1000ml unpreserved	C	8	5.3	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610064-10J1	Amber 1000ml unpreserved	C	8	5.3	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610064-10J2	Amber 1000ml unpreserved	B	8	2.1	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610064-10K	Amber 1000ml unpreserved	C	8	5.3	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610064-10K1	Amber 1000ml unpreserved	C	8	5.3	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610064-10K2	Amber 1000ml unpreserved	B	8	2.1	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610064-10L	Amber 1000ml unpreserved	C	8	5.3	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610064-10L1	Amber 1000ml unpreserved	C	8	5.3	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610064-10L2	Amber 1000ml unpreserved	B	8	2.1	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610064-11A	Vial HCl preserved	G	N/A	4.2	Y	Absent	NYTCL-8260(14)
L1610064-11B	Vial HCl preserved	G	N/A	4.2	Y	Absent	NYTCL-8260(14)
L1610064-11C	Vial HCl preserved	G	N/A	4.2	Y	Absent	NYTCL-8260(14)
L1610064-11D	Plastic 500ml HNO3 preserved	G	<2	4.2	Y	Absent	BA-6020T(180),SE-6020T(180),TL-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180),HG-T(28)

*Values in parentheses indicate holding time in days

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1610064-11E	Plastic 500ml HNO3 preserved	G	<2	4.2	Y	Absent	CU-6020S(180),SE-6020S(180),BE-6020S(180),ZN-6020S(180),CR-6020S(180),BA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),CD-6020S(180),HG-S(28)
L1610064-11F	Plastic 250ml NaOH preserved	G	>12	4.2	Y	Absent	TCN-9010(14)
L1610064-11G	Amber 500ml unpreserved	G	7	4.2	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610064-11H	Amber 500ml unpreserved	G	7	4.2	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610064-11I	Amber 1000ml unpreserved	G	7	4.2	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610064-11J	Amber 1000ml unpreserved	G	7	4.2	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610064-11K	Amber 1000ml unpreserved	G	7	4.2	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610064-11L	Amber 1000ml unpreserved	G	7	4.2	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610064-12A	Vial HCl preserved	G	N/A	4.2	Y	Absent	NYTCL-8260(14)
L1610064-12B	Vial HCl preserved	G	N/A	4.2	Y	Absent	NYTCL-8260(14)
L1610064-12C	Vial HCl preserved	G	N/A	4.2	Y	Absent	NYTCL-8260(14)
L1610064-12D	Plastic 500ml HNO3 preserved	G	<2	4.2	Y	Absent	BA-6020T(180),SE-6020T(180),TL-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180),HG-T(28)
L1610064-12E	Plastic 500ml HNO3 preserved	G	<2	4.2	Y	Absent	CU-6020S(180),SE-6020S(180),BE-6020S(180),ZN-6020S(180),CR-6020S(180),BA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),CD-6020S(180),HG-S(28)
L1610064-12F	Plastic 250ml NaOH preserved	G	>12	4.2	Y	Absent	TCN-9010(14)
L1610064-12G	Amber 500ml unpreserved	G	7	4.2	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610064-12H	Amber 500ml unpreserved	G	7	4.2	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610064-12I	Amber 1000ml unpreserved	G	7	4.2	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610064-12J	Amber 1000ml unpreserved	G	7	4.2	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610064-12K	Amber 1000ml unpreserved	G	7	4.2	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610064-12L	Amber 1000ml unpreserved	G	7	4.2	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610064-13A	Vial HCl preserved	I	N/A	2.7	Y	Absent	NYTCL-8260(14)
L1610064-13B	Vial HCl preserved	I	N/A	2.7	Y	Absent	NYTCL-8260(14)
L1610064-13C	Vial HCl preserved	I	N/A	2.7	Y	Absent	NYTCL-8260(14)

*Values in parentheses indicate holding time in days

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1610064-13D	Plastic 500ml HNO3 preserved	I	<2	2.7	Y	Absent	BA-6020T(180),SE-6020T(180),TL-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180),HG-T(28)
L1610064-13E	Plastic 500ml HNO3 preserved	I	<2	2.7	Y	Absent	CU-6020S(180),SE-6020S(180),BE-6020S(180),ZN-6020S(180),CR-6020S(180),BA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),CD-6020S(180),HG-S(28)
L1610064-13F	Plastic 250ml NaOH preserved	I	>12	2.7	Y	Absent	TCN-9010(14)
L1610064-13G	Amber 500ml unpreserved	I	8	2.7	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610064-13H	Amber 500ml unpreserved	I	8	2.7	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610064-13I	Amber 1000ml unpreserved	I	8	2.7	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610064-13J	Amber 1000ml unpreserved	I	8	2.7	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610064-13K	Amber 1000ml unpreserved	I	8	2.7	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610064-13L	Amber 1000ml unpreserved	I	8	2.7	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610064-14A	Vial HCl preserved	A	N/A	4.3	Y	Absent	NYTCL-8260(14)
L1610064-14B	Vial HCl preserved	A	N/A	4.3	Y	Absent	NYTCL-8260(14)
L1610064-14C	Vial HCl preserved	A	N/A	4.3	Y	Absent	NYTCL-8260(14)
L1610064-14D	Plastic 500ml HNO3 preserved	A	<2	4.3	Y	Absent	BA-6020T(180),SE-6020T(180),TL-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180),HG-T(28)
L1610064-14E	Plastic 500ml HNO3 preserved	A	<2	4.3	Y	Absent	CU-6020S(180),SE-6020S(180),BE-6020S(180),ZN-6020S(180),CR-6020S(180),BA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),CD-6020S(180),HG-S(28)
L1610064-14F	Plastic 250ml NaOH preserved	A	>12	4.3	Y	Absent	TCN-9010(14)
L1610064-14G	Amber 500ml unpreserved	A	7	4.3	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610064-14H	Amber 500ml unpreserved	A	7	4.3	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610064-14I	Amber 1000ml unpreserved	A	7	4.3	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610064-14J	Amber 1000ml unpreserved	A	7	4.3	Y	Absent	L-EXT-8082(7),HOLD-8082()

*Values in parentheses indicate holding time in days

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1610064-14K	Amber 1000ml unpreserved	A	7	4.3	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610064-14L	Amber 1000ml unpreserved	A	7	4.3	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610064-15A	Vial HCl preserved	A	N/A	4.3	Y	Absent	NYTCL-8260(14)
L1610064-15B	Vial HCl preserved	A	N/A	4.3	Y	Absent	NYTCL-8260(14)
L1610064-15C	Vial HCl preserved	A	N/A	4.3	Y	Absent	NYTCL-8260(14)
L1610064-15D	Plastic 500ml HNO3 preserved	A	<2	4.3	Y	Absent	BA-6020T(180),SE-6020T(180),TL-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180),HG-T(28)
L1610064-15E	Plastic 500ml HNO3 preserved	A	<2	4.3	Y	Absent	CU-6020S(180),SE-6020S(180),BE-6020S(180),ZN-6020S(180),CR-6020S(180),BA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),CD-6020S(180),HG-S(28)
L1610064-15F	Plastic 250ml NaOH preserved	A	>12	4.3	Y	Absent	TCN-9010(14)
L1610064-15G	Amber 500ml unpreserved	A	8	4.3	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610064-15H	Amber 500ml unpreserved	A	8	4.3	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610064-15I	Amber 1000ml unpreserved	A	8	4.3	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610064-15J	Amber 1000ml unpreserved	A	8	4.3	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610064-15K	Amber 1000ml unpreserved	A	8	4.3	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610064-15L	Amber 1000ml unpreserved	A	8	4.3	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610064-16A	Vial HCl preserved	F	N/A	3.6	Y	Absent	NYTCL-8260(14)
L1610064-16B	Vial HCl preserved	F	N/A	3.6	Y	Absent	NYTCL-8260(14)
L1610064-16C	Vial HCl preserved	F	N/A	3.6	Y	Absent	NYTCL-8260(14)
L1610064-16D	Plastic 500ml HNO3 preserved	F	<2	3.6	Y	Absent	BA-6020T(180),SE-6020T(180),TL-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180),HG-T(28)
L1610064-16E	Plastic 500ml HNO3 preserved	F	<2	3.6	Y	Absent	CU-6020S(180),SE-6020S(180),BE-6020S(180),ZN-6020S(180),CR-6020S(180),BA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),CD-6020S(180),HG-S(28)

*Values in parentheses indicate holding time in days

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610064
Report Date: 04/14/16

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1610064-16F	Plastic 250ml NaOH preserved	F	>12	3.6	Y	Absent	TCN-9010(14)
L1610064-16G	Amber 500ml unpreserved	F	8	3.6	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610064-16H	Amber 500ml unpreserved	F	8	3.6	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610064-16I	Amber 1000ml unpreserved	F	8	3.6	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610064-16J	Amber 1000ml unpreserved	F	8	3.6	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610064-16K	Amber 1000ml unpreserved	F	8	3.6	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610064-16L	Amber 1000ml unpreserved	F	8	3.6	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)

*Values in parentheses indicate holding time in days

Project Name:	PORT IVORY	**Lab Number:**	L1610064
Project Number:	P11955502	**Report Date:**	04/14/16

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

Report Format: DU Report with 'J' Qualifiers

Project Name:	PORT IVORY	**Lab Number:**	L1610064
Project Number:	P11955502	**Report Date:**	04/14/16

Data Qualifiers

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	PORT IVORY	**Lab Number:**	L1610064
Project Number:	P11955502	**Report Date:**	04/14/16

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene
EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene
EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.
EPA 1010A: NPW: Ignitability
EPA 6010C: NPW: Strontium; SCM: Strontium
EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation
EPA 9038: NPW: Sulfate
EPA 9050A: NPW: Specific Conductance
EPA 9056: NPW: Chloride, Nitrate, Sulfate
EPA 9065: NPW: Phenols
EPA 9251: NPW: Chloride
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
EPA 8270D: NPW: Biphenyl; SCM: Biphenyl, Caprolactam
EPA 8270D-SIM Isotope Dilution: SCM: 1,4-Dioxane
SM 2540D: TSS
SM2540G: SCM: Percent Solids
EPA 1631E: SCM: Mercury
EPA 7474: SCM: Mercury
EPA 8081B: NPW and SCM: Mirex, Hexachlorobenzene.
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA 8270-SIM: NPW and SCM: Alkylated PAHs.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.
Biological Tissue Matrix: ***8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:*** Lead***; 8270D:*** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F,**
EPA 353.2: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

ALPHA ANALYTICAL
Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

NEW YORK CHAIN OF CUSTODY

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page: 1 of 2

Date Rec'd in Lab: 4/6/16

ALPHA Job #: L1610064

Client Information
Client: Port Authority of NY & NJ
Address: Four World Trade Center
150 Greenwich Street - 20th Floor
New York, New York 10007
Phone: 212-435-6108
Email: vcarley@panynj.gov

Project Information
Project Name: Port Ivory
Project Location: Staten Island, NY
Charge Code: P11955502
(Use Project name as Project #) ☐
Project Manager: Victoria Carley
ALPHAQuote #:

Turn-Around Time
Standard ☐ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☐ Same as Client Info
PO #

Site Information
Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:
Hold PCB and Pesticides

ANALYSIS

Sample Filtration
☑ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PPVOC	PP SVOC	PP Metals (total)	PP Metals (dissolved)	Pesticides	PCB	Total Cyanide	Sample Specific Comments	Total Bottl
10064 -01	PRW-02	4/6/16	1127	GW	MS	X	X	X	X	X	X	X		12
02	PRW-06	4/6/16	1246	GW	MS	X	X	X	X	X	X	X		12
03	PRW-01	4/6/16	1412	GW	MS	X	X	X	X	X	X	X		12
04	Field Blank	4/6/16	1030	AQ	MS	X	X	X	X	X	X	X		12
05	Trip Blank	4/6/16	—	AQ	LAB	X								2
06	SW-3	4/6/16	1530	SW	MS	X	X	X	X	X	X	X		12
07	SW-2	4/6/16	1600	SW	MS	X	X	X	X	X	X	X		12
08	SW-1	4/6/16	1630	SW	MS	X	X	X	X	X	X	X		12
09	PRW-11	4/6/16	1007	GW	CB	X	X	X	X	X	X	X		12
10	PRW-07	4/6/16	1117	GW	CB	X	X	X	X	X	X	X	MS/MSD Sample	36
11	PRW-04	4/6/16	1307	GW	CB	X	X	X	X	X	X	X		12
	Container Type					V	A	P	P	A	A	P		
	Preservative					B	A	C	C	A	A	E		

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	4/6/16 1730		4-6-16 1730
	4-6-16 1830		4-6-16 1830
	4/7/16 2235		4/6/16 2235

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.

Form No: 01-14 (rev. 30-Sept-2013)

ALPHA ANALYTICAL
Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

NEW YORK CHAIN OF CUSTODY

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 2 of 2

Date Rec'd in Lab: 4/6/16

ALPHA Job #: L1610064

Client Information

Client: Port Authority of NY & NJ
Address: Four World Trade Center
150 Greenwich Street - 20th Floor
New York, New York 10007
Phone: 212-435-6108
Email: vcarley@panynj.gov

Project Information

Project Name: Port Ivory
Project Location: Staten Island, NY
Charge Code: P11955502
(Use Project name as Project #)
Project Manager: Victoria Carley
ALPHAQuote #:

Turn-Around Time

Standard ☐ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information

☐ Same as Client Info
PO #

Site Information

Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:
Hold PCB and Pesticides

Sample Filtration

☑ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PPVOC	PP SVOC	PP Metals (total)	PP Metals (dissolved)	Pesticides	PCB	Total Cyanide		Sample Specific Comments	Total Bottl
10064-12	PEW-03	4/6/16	1422	GW	CB	X	X	X	X	X	X	X			12
13	SW-4	4/6/16	1640	SW	CB	X	X	X	X	X	X	X			12
14	SW-5	4/6/16	1540	SW	CB	X	X	X	X	X	X	X			12
15	DUP-1	4/6/16	—	SW	CB	X	X	X	X	X	X	X			12
16	DUP-2	4/6/16	—	SW	MS	X	X	X	X	X	X	X			12

ANALYSIS

Container Type	V	A	P	P	A	A	P
Preservative	B	A	C	C	A	A	E

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	4/6/16 1730	ATC	4-6-16 1730
	4-6-16 1830		4-6-16 1830
	4/6/16 2235		4/6/16 2235

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.

Form No: 01-14 (rev. 30-Sept-2013)

JOB: L1610205 REPORT STYLE: Data Usability Report
0010: Cover Page - OK
0015: Sample Cross Reference Summary - OK
0060: Narrative Page(s) - OK
0100: Cover Page - OK
0110: Volatiles Sample Results - OK
0120: Volatiles Blank Report - OK
0130: Volatiles LCS Report - OK
0180: Cover Page - OK
0190: Semivolatiles Sample Results - OK
0200: Semivolatiles Blank Report - OK
0210: Semivolatiles LCS Report - OK
1005: Metals Sample Results - OK
1010: Metals Blank Report - OK
1020: Metals LCS Report - OK
1040: Metals Matrix Spike Report - OK
1050: Metals Duplicate Report - OK
1180: Cover Page - OK
1200: Wet Chemistry Sample Results - OK
1210: Wet Chemistry Blank Report - OK
1220: Wet Chemistry LCS Report - OK
1240: Wet Chemistry Matrix Spike Report - OK
5100: Container Report - OK
5200: Glossary - OK
5400: Reference Report - OK

ANALYTICAL REPORT

Lab Number:	L1610205
Client:	Port Authority of New York/New Jersey Four World Trade Center 150 Greenwich St - 20th Floor New York, NY 10007
ATTN:	Victoria Carley
Phone:	(212) 435-6109
Project Name:	PORT IVORY
Project Number:	P11955502
Report Date:	04/14/16

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1610205-01	PRW-08	WATER	STATEN ISLAND, NY	04/07/16 08:32	04/07/16
L1610205-02	PRW-14	WATER	STATEN ISLAND, NY	04/07/16 09:47	04/07/16
L1610205-03	PRW-13	WATER	STATEN ISLAND, NY	04/07/16 11:02	04/07/16
L1610205-04	PRW-15	WATER	STATEN ISLAND, NY	04/07/16 12:52	04/07/16
L1610205-05	PRW-12	WATER	STATEN ISLAND, NY	04/07/16 08:46	04/07/16
L1610205-06	PRW-10	WATER	STATEN ISLAND, NY	04/07/16 09:46	04/07/16
L1610205-07	PRW-05	WATER	STATEN ISLAND, NY	04/07/16 10:56	04/07/16
L1610205-08	PRW-09	WATER	STATEN ISLAND, NY	04/07/16 12:16	04/07/16
L1610205-09	FIELD BLANK	WATER	STATEN ISLAND, NY	04/07/16 08:05	04/07/16
L1610205-10	TRIP BLANK	WATER	STATEN ISLAND, NY	04/07/16 00:00	04/07/16

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: PORT IVORY **Lab Number:** L1610205
Project Number: P11955502 **Report Date:** 04/14/16

Case Narrative (continued)

Report Submission
This is a partial report. A final report will be issued as soon as the results of all requested analyses become available.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt
At the client's request the PCB and Pesticides analyses were extracted and held.

Volatile Organics
L1610205-01 through -10: The pH of the sample was less than two. It should be noted that 2-Chloroethylvinyl ether breaks down under acidic conditions.

Semivolatile Organics
The WG883017-2/-3 LCS/LCSD recoveries, associated with L1610205-06 through -09, are below the acceptance criteria for benzidine (0%/3%); however, it has been identified as a "difficult" analyte. The results of the associated samples are reported.

Semivolatile Organics by SIM
L1610205-03: The sample has elevated detection limits due to the dilution required by the sample matrix.

Total Metals
L1610205-01 through -08: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.
The WG882709-2 LCS recovery, associated with L1610205-01 through -09, is above the acceptance criteria for mercury (123%); however, the associated samples are non-detect for this target analyte. The results of the original analysis are reported.

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

Case Narrative (continued)

The WG881945-3 Laboratory Duplicate RPD, performed on L1610205-01, is outside the acceptance criteria for barium (23%). The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

Dissolved Metals

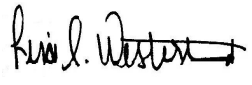
L1610205-01 through -08: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.

L1610205-09: The Field Blank has a concentration above the reporting limit for chromium. The results were confirmed.

The WG882699-2 LCS recovery, associated with L1610205-01 through -09, is above the acceptance criteria for mercury (125%); however, the associated samples are non-detect for this target analyte. The results of the original analysis are reported.

The WG881943-4 MS recovery, performed on L1610205-01, is outside the acceptance criteria for silver (69%). A post digestion spike was performed and yielded an unacceptable recovery (29%); all other analytes were within acceptance criteria. This has been attributed to sample matrix.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Lisa Westerlind

Title: Technical Director/Representative Date: 04/14/16

ORGANICS

VOLATILES

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-01
Client ID: PRW-08
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/11/16 12:53
Analyst: PD

Date Collected: 04/07/16 08:32
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: PORT IVORY
Lab Number: L1610205
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-01
Client ID: PRW-08
Sample Location: STATEN ISLAND, NY
Date Collected: 04/07/16 08:32
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Acrolein	ND		ug/l	5.0	0.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	100		70-130

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-02
Client ID: PRW-14
Sample Location: STATEN ISLAND, NY

Date Collected: 04/07/16 09:47
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/11/16 13:27
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: PORT IVORY
Lab Number: L1610205
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-02
Client ID: PRW-14
Sample Location: STATEN ISLAND, NY
Date Collected: 04/07/16 09:47
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Acrolein	ND		ug/l	5.0	0.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	104		70-130

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-03
Client ID: PRW-13
Sample Location: STATEN ISLAND, NY

Date Collected: 04/07/16 11:02
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/11/16 14:01
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	0.29	J	ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: PORT IVORY
Lab Number: L1610205
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-03
Client ID: PRW-13
Sample Location: STATEN ISLAND, NY
Date Collected: 04/07/16 11:02
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Acrolein	ND		ug/l	5.0	0.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	103		70-130

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-04
Client ID: PRW-15
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/11/16 14:34
Analyst: PD

Date Collected: 04/07/16 12:52
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: PORT IVORY
Lab Number: L1610205
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-04
Client ID: PRW-15
Sample Location: STATEN ISLAND, NY
Date Collected: 04/07/16 12:52
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Acrolein	ND		ug/l	5.0	0.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	102		70-130

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-05
Client ID: PRW-12
Sample Location: STATEN ISLAND, NY

Date Collected: 04/07/16 08:46
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/11/16 15:08
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	0.29	J	ug/l	0.50	0.16	1
Toluene	4.7		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: PORT IVORY
Lab Number: L1610205
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-05
Client ID: PRW-12
Sample Location: STATEN ISLAND, NY
Date Collected: 04/07/16 08:46
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Acrolein	ND		ug/l	5.0	0.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	100		70-130

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-06
Client ID: PRW-10
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/11/16 15:41
Analyst: PD

Date Collected: 04/07/16 09:46
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: PORT IVORY
Lab Number: L1610205
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-06
Client ID: PRW-10
Sample Location: STATEN ISLAND, NY
Date Collected: 04/07/16 09:46
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Acrolein	ND		ug/l	5.0	0.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	103		70-130

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-07
Client ID: PRW-05
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/11/16 16:15
Analyst: PD

Date Collected: 04/07/16 10:56
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: PORT IVORY
Lab Number: L1610205
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-07
Client ID: PRW-05
Sample Location: STATEN ISLAND, NY
Date Collected: 04/07/16 10:56
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Acrolein	ND		ug/l	5.0	0.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	102		70-130

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-08
Client ID: PRW-09
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/11/16 16:49
Analyst: PD

Date Collected: 04/07/16 12:16
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: PORT IVORY
Lab Number: L1610205
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-08
Client ID: PRW-09
Sample Location: STATEN ISLAND, NY
Date Collected: 04/07/16 12:16
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Acrolein	ND		ug/l	5.0	0.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	101		70-130

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-09
Client ID: FIELD BLANK
Sample Location: STATEN ISLAND, NY

Date Collected: 04/07/16 08:05
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/11/16 17:23
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: PORT IVORY
Lab Number: L1610205
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-09
Client ID: FIELD BLANK
Sample Location: STATEN ISLAND, NY
Date Collected: 04/07/16 08:05
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Acrolein	ND		ug/l	5.0	0.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	104		70-130

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-10
Client ID: TRIP BLANK
Sample Location: STATEN ISLAND, NY
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/11/16 17:56
Analyst: PD

Date Collected: 04/07/16 00:00
Date Received: 04/07/16
Field Prep: None

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: PORT IVORY
Lab Number: L1610205
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-10
Client ID: TRIP BLANK
Sample Location: STATEN ISLAND, NY
Date Collected: 04/07/16 00:00
Date Received: 04/07/16
Field Prep: None

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Acrolein	ND		ug/l	5.0	0.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	103		70-130

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/11/16 12:20
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-10 Batch: WG882428-3					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
2-Chloroethylvinyl ether	ND		ug/l	10	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.13
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.14
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/11/16 12:20
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-10 Batch: WG882428-3					
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Acrolein	ND		ug/l	5.0	0.63

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	102		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-10 Batch: WG882428-1 WG882428-2								
Methylene chloride	100		96		70-130	4		20
1,1-Dichloroethane	100		97		70-130	3		20
Chloroform	105		101		70-130	4		20
2-Chloroethylvinyl ether	**60**	Q	100		70-130	**50**	Q	20
Carbon tetrachloride	115		110		63-132	4		20
1,2-Dichloropropane	98		94		70-130	4		20
Dibromochloromethane	107		103		63-130	4		20
1,1,2-Trichloroethane	100		98		70-130	2		20
Tetrachloroethene	105		98		70-130	7		20
Chlorobenzene	99		94		75-130	5		20
Trichlorofluoromethane	112		108		62-150	4		20
1,2-Dichloroethane	104		100		70-130	4		20
1,1,1-Trichloroethane	117		113		67-130	3		20
Bromodichloromethane	112		107		67-130	5		20
trans-1,3-Dichloropropene	114		106		70-130	7		20
cis-1,3-Dichloropropene	106		103		70-130	3		20
1,1-Dichloropropene	106		99		70-130	7		20
Bromoform	111		108		54-136	3		20
1,1,2,2-Tetrachloroethane	93		94		67-130	1		20
Benzene	99		96		70-130	3		20
Toluene	100		94		70-130	6		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: PORT IVORY

Project Number: P11955502

Lab Number: L1610205

Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-10 Batch: WG882428-1 WG882428-2								
Ethylbenzene	103		98		70-130	5		20
Chloromethane	**62**	Q	**62**	Q	64-130	0		20
Bromomethane	64		58		39-139	10		20
Vinyl chloride	103		98		55-140	5		20
Chloroethane	99		96		55-138	3		20
1,1-Dichloroethene	108		101		61-145	7		20
trans-1,2-Dichloroethene	102		97		70-130	5		20
Trichloroethene	103		100		70-130	3		20
1,2-Dichlorobenzene	95		97		70-130	2		20
1,3-Dichlorobenzene	94		95		70-130	1		20
1,4-Dichlorobenzene	93		94		70-130	1		20
Methyl tert butyl ether	95		90		63-130	5		20
p/m-Xylene	101		97		70-130	4		20
o-Xylene	100		95		70-130	5		20
cis-1,2-Dichloroethene	100		99		70-130	1		20
Dibromomethane	102		95		70-130	7		20
1,2,3-Trichloropropane	93		91		64-130	2		20
Acrylonitrile	100		96		70-130	4		20
Isopropyl Ether	94		90		70-130	4		20
tert-Butyl Alcohol	101		101		70-130	0		20
Styrene	103		100		70-130	3		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-10 Batch: WG882428-1 WG882428-2								
Dichlorodifluoromethane	101		96		36-147	5		20
Acetone	98		85		58-148	14		20
Carbon disulfide	95		86		51-130	10		20
2-Butanone	90		82		63-138	9		20
Vinyl acetate	108		103		70-130	5		20
4-Methyl-2-pentanone	97		93		59-130	4		20
2-Hexanone	93		86		57-130	8		20
Acrolein	119		108		40-160	10		20
Bromochloromethane	114		109		70-130	4		20
2,2-Dichloropropane	112		105		63-133	6		20
1,2-Dibromoethane	101		95		70-130	6		20
1,3-Dichloropropane	99		94		70-130	5		20
1,1,1,2-Tetrachloroethane	113		108		64-130	5		20
Bromobenzene	94		95		70-130	1		20
n-Butylbenzene	102		98		53-136	4		20
sec-Butylbenzene	100		97		70-130	3		20
tert-Butylbenzene	98		94		70-130	4		20
o-Chlorotoluene	94		94		70-130	0		20
p-Chlorotoluene	95		94		70-130	1		20
1,2-Dibromo-3-chloropropane	110		111		41-144	1		20
Hexachlorobutadiene	95		93		63-130	2		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-10 Batch: WG882428-1 WG882428-2								
Isopropylbenzene	103		98		70-130	5		20
p-Isopropyltoluene	99		96		70-130	3		20
Naphthalene	88		95		70-130	8		20
n-Propylbenzene	98		97		69-130	1		20
1,2,3-Trichlorobenzene	96		96		70-130	0		20
1,2,4-Trichlorobenzene	99		98		70-130	1		20
1,3,5-Trimethylbenzene	98		95		64-130	3		20
1,2,4-Trimethylbenzene	98		96		70-130	2		20
Methyl Acetate	98		95		70-130	3		20
Ethyl Acetate	93		89		70-130	4		20
Cyclohexane	99		94		70-130	5		20
Ethyl-Tert-Butyl-Ether	93		88		70-130	6		20
Tertiary-Amyl Methyl Ether	91		87		66-130	4		20
1,4-Dioxane	105		102		56-162	3		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	106		103		70-130	3		20
p-Diethylbenzene	95		94		70-130	1		20
p-Ethyltoluene	99		99		70-130	0		20
1,2,4,5-Tetramethylbenzene	103		100		70-130	3		20
Ethyl ether	102		101		59-134	1		20
trans-1,4-Dichloro-2-butene	105		103		70-130	2		20
Iodomethane	**32**	Q	**39**	Q	70-130	20		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: PORT IVORY

Project Number: P11955502

Lab Number: L1610205

Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-10 Batch: WG882428-1 WG882428-2								
Methyl cyclohexane	102		95		70-130	7		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	108		103		70-130
Toluene-d8	98		97		70-130
4-Bromofluorobenzene	95		97		70-130
Dibromofluoromethane	107		105		70-130

SEMIVOLATILES

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-01
Client ID: PRW-08
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/14/16 11:18
Analyst: RC

Date Collected: 04/07/16 08:32
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/12/16 18:35

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66	1
Benzidine	ND		ug/l	20	8.1	1
n-Nitrosodimethylamine	ND		ug/l	2.0	0.67	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4	1
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84	1
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1	1
Azobenzene	ND		ug/l	2.0	0.75	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63	1
Hexachlorocyclopentadiene	ND		ug/l	20	7.8	1
Isophorone	ND		ug/l	5.0	0.60	1
Nitrobenzene	ND		ug/l	2.0	0.75	1
NDPA/DPA	ND		ug/l	2.0	0.64	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	0.91	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.3	1
Di-n-butylphthalate	ND		ug/l	5.0	0.69	1
Di-n-octylphthalate	ND		ug/l	5.0	1.1	1
Diethyl phthalate	ND		ug/l	5.0	0.63	1
Dimethyl phthalate	ND		ug/l	5.0	0.65	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.62	1
2-Chlorophenol	ND		ug/l	2.0	0.63	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.77	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.6	1
2-Nitrophenol	ND		ug/l	10	1.5	1

Project Name: PORT IVORY
Lab Number: L1610205
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-01
Client ID: PRW-08
Sample Location: STATEN ISLAND, NY
Date Collected: 04/07/16 08:32
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
4-Nitrophenol	ND		ug/l	10	1.8	1
2,4-Dinitrophenol	ND		ug/l	20	5.5	1
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1	1
Phenol	ND		ug/l	5.0	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	39		21-120
Phenol-d6	29		10-120
Nitrobenzene-d5	82		23-120
2-Fluorobiphenyl	76		15-120
2,4,6-Tribromophenol	96		10-120
4-Terphenyl-d14	89		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-01
Client ID: PRW-08
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/14/16 11:53
Analyst: KV

Date Collected: 04/07/16 08:32
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/12/16 18:35

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.20	0.04	1
2-Chloronaphthalene	ND		ug/l	0.20	0.04	1
Fluoranthene	ND		ug/l	0.20	0.04	1
Hexachlorobutadiene	ND		ug/l	0.50	0.04	1
Naphthalene	ND		ug/l	0.20	0.04	1
Benzo(a)anthracene	ND		ug/l	0.20	0.02	1
Benzo(a)pyrene	ND		ug/l	0.20	0.04	1
Benzo(b)fluoranthene	ND		ug/l	0.20	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04	1
Chrysene	ND		ug/l	0.20	0.04	1
Acenaphthylene	ND		ug/l	0.20	0.04	1
Anthracene	ND		ug/l	0.20	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.20	0.04	1
Fluorene	ND		ug/l	0.20	0.04	1
Phenanthrene	ND		ug/l	0.20	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.20	0.04	1
Pyrene	ND		ug/l	0.20	0.04	1
Pentachlorophenol	ND		ug/l	0.80	0.22	1
Hexachlorobenzene	ND		ug/l	0.80	0.03	1
Hexachloroethane	ND		ug/l	0.80	0.03	1

Project Name: PORT IVORY **Lab Number:** L1610205

Project Number: P11955502 **Report Date:** 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-01 Date Collected: 04/07/16 08:32

Client ID: PRW-08 Date Received: 04/07/16

Sample Location: STATEN ISLAND, NY Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	43		21-120
Phenol-d6	33		10-120
Nitrobenzene-d5	78		23-120
2-Fluorobiphenyl	88		15-120
2,4,6-Tribromophenol	84		10-120
4-Terphenyl-d14	105		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-02
Client ID: PRW-14
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/14/16 14:39
Analyst: RC

Date Collected: 04/07/16 09:47
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/12/16 18:35

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66	1
Benzidine	ND		ug/l	20	8.1	1
n-Nitrosodimethylamine	ND		ug/l	2.0	0.67	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4	1
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84	1
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1	1
Azobenzene	ND		ug/l	2.0	0.75	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63	1
Hexachlorocyclopentadiene	ND		ug/l	20	7.8	1
Isophorone	ND		ug/l	5.0	0.60	1
Nitrobenzene	ND		ug/l	2.0	0.75	1
NDPA/DPA	ND		ug/l	2.0	0.64	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	0.91	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.3	1
Di-n-butylphthalate	ND		ug/l	5.0	0.69	1
Di-n-octylphthalate	ND		ug/l	5.0	1.1	1
Diethyl phthalate	ND		ug/l	5.0	0.63	1
Dimethyl phthalate	ND		ug/l	5.0	0.65	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.62	1
2-Chlorophenol	ND		ug/l	2.0	0.63	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.77	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.6	1
2-Nitrophenol	ND		ug/l	10	1.5	1

Project Name: PORT IVORY
Lab Number: L1610205
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-02
Client ID: PRW-14
Sample Location: STATEN ISLAND, NY
Date Collected: 04/07/16 09:47
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
4-Nitrophenol	ND		ug/l	10	1.8	1
2,4-Dinitrophenol	ND		ug/l	20	5.5	1
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1	1
Phenol	ND		ug/l	5.0	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	52		21-120
Phenol-d6	37		10-120
Nitrobenzene-d5	90		23-120
2-Fluorobiphenyl	88		15-120
2,4,6-Tribromophenol	112		10-120
4-Terphenyl-d14	98		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-02
Client ID: PRW-14
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/14/16 12:25
Analyst: KV

Date Collected: 04/07/16 09:47
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/12/16 18:35

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.20	0.04	1
2-Chloronaphthalene	ND		ug/l	0.20	0.04	1
Fluoranthene	ND		ug/l	0.20	0.04	1
Hexachlorobutadiene	ND		ug/l	0.50	0.04	1
Naphthalene	ND		ug/l	0.20	0.04	1
Benzo(a)anthracene	ND		ug/l	0.20	0.02	1
Benzo(a)pyrene	ND		ug/l	0.20	0.04	1
Benzo(b)fluoranthene	ND		ug/l	0.20	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04	1
Chrysene	ND		ug/l	0.20	0.04	1
Acenaphthylene	ND		ug/l	0.20	0.04	1
Anthracene	ND		ug/l	0.20	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.20	0.04	1
Fluorene	ND		ug/l	0.20	0.04	1
Phenanthrene	ND		ug/l	0.20	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.20	0.04	1
Pyrene	ND		ug/l	0.20	0.04	1
Pentachlorophenol	ND		ug/l	0.80	0.22	1
Hexachlorobenzene	ND		ug/l	0.80	0.03	1
Hexachloroethane	ND		ug/l	0.80	0.03	1

Project Name: PORT IVORY
Lab Number: L1610205
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-02
Client ID: PRW-14
Sample Location: STATEN ISLAND, NY
Date Collected: 04/07/16 09:47
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	52		21-120
Phenol-d6	38		10-120
Nitrobenzene-d5	93		23-120
2-Fluorobiphenyl	101		15-120
2,4,6-Tribromophenol	89		10-120
4-Terphenyl-d14	115		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-03
Client ID: PRW-13
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/14/16 15:10
Analyst: RC

Date Collected: 04/07/16 11:02
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/12/16 18:35

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66	1
Benzidine	ND		ug/l	20	8.1	1
n-Nitrosodimethylamine	ND		ug/l	2.0	0.67	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4	1
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84	1
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1	1
Azobenzene	ND		ug/l	2.0	0.75	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63	1
Hexachlorocyclopentadiene	ND		ug/l	20	7.8	1
Isophorone	ND		ug/l	5.0	0.60	1
Nitrobenzene	ND		ug/l	2.0	0.75	1
NDPA/DPA	ND		ug/l	2.0	0.64	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	0.91	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.3	1
Di-n-butylphthalate	ND		ug/l	5.0	0.69	1
Di-n-octylphthalate	ND		ug/l	5.0	1.1	1
Diethyl phthalate	ND		ug/l	5.0	0.63	1
Dimethyl phthalate	ND		ug/l	5.0	0.65	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.62	1
2-Chlorophenol	ND		ug/l	2.0	0.63	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.77	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.6	1
2-Nitrophenol	ND		ug/l	10	1.5	1

Project Name: PORT IVORY
Lab Number: L1610205
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-03
Client ID: PRW-13
Sample Location: STATEN ISLAND, NY
Date Collected: 04/07/16 11:02
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
4-Nitrophenol	ND		ug/l	10	1.8	1
2,4-Dinitrophenol	ND		ug/l	20	5.5	1
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1	1
Phenol	ND		ug/l	5.0	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	55		21-120
Phenol-d6	41		10-120
Nitrobenzene-d5	90		23-120
2-Fluorobiphenyl	87		15-120
2,4,6-Tribromophenol	**122**	Q	10-120
4-Terphenyl-d14	97		41-149

Project Name: PORT IVORY
Lab Number: L1610205
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-03 D
Client ID: PRW-13
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/14/16 12:56
Analyst: KV

Date Collected: 04/07/16 11:02
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)
Extraction Method: EPA 3510C
Extraction Date: 04/12/16 18:35

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.40	0.07	2
2-Chloronaphthalene	ND		ug/l	0.40	0.07	2
Fluoranthene	ND		ug/l	0.40	0.08	2
Hexachlorobutadiene	ND		ug/l	1.0	0.07	2
Naphthalene	0.20	J	ug/l	0.40	0.09	2
Benzo(a)anthracene	ND		ug/l	0.40	0.03	2
Benzo(a)pyrene	ND		ug/l	0.40	0.08	2
Benzo(b)fluoranthene	ND		ug/l	0.40	0.03	2
Benzo(k)fluoranthene	ND		ug/l	0.40	0.08	2
Chrysene	ND		ug/l	0.40	0.08	2
Acenaphthylene	0.29	J	ug/l	0.40	0.07	2
Anthracene	ND		ug/l	0.40	0.07	2
Benzo(ghi)perylene	ND		ug/l	0.40	0.08	2
Fluorene	ND		ug/l	0.40	0.07	2
Phenanthrene	ND		ug/l	0.40	0.03	2
Dibenzo(a,h)anthracene	ND		ug/l	0.40	0.08	2
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.40	0.08	2
Pyrene	ND		ug/l	0.40	0.08	2
Pentachlorophenol	ND		ug/l	1.6	0.44	2
Hexachlorobenzene	ND		ug/l	1.6	0.06	2
Hexachloroethane	ND		ug/l	1.6	0.06	2

Project Name: PORT IVORY **Lab Number:** L1610205

Project Number: P11955502 **Report Date:** 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-03 D
Client ID: PRW-13
Sample Location: STATEN ISLAND, NY

Date Collected: 04/07/16 11:02
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	56		21-120
Phenol-d6	42		10-120
Nitrobenzene-d5	93		23-120
2-Fluorobiphenyl	109		15-120
2,4,6-Tribromophenol	100		10-120
4-Terphenyl-d14	131		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-04
Client ID: PRW-15
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/14/16 15:35
Analyst: RC

Date Collected: 04/07/16 12:52
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/12/16 18:35

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66	1
Benzidine	ND		ug/l	20	8.1	1
n-Nitrosodimethylamine	ND		ug/l	2.0	0.67	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4	1
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84	1
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1	1
Azobenzene	ND		ug/l	2.0	0.75	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63	1
Hexachlorocyclopentadiene	ND		ug/l	20	7.8	1
Isophorone	ND		ug/l	5.0	0.60	1
Nitrobenzene	ND		ug/l	2.0	0.75	1
NDPA/DPA	ND		ug/l	2.0	0.64	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	0.91	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.3	1
Di-n-butylphthalate	ND		ug/l	5.0	0.69	1
Di-n-octylphthalate	ND		ug/l	5.0	1.1	1
Diethyl phthalate	ND		ug/l	5.0	0.63	1
Dimethyl phthalate	ND		ug/l	5.0	0.65	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.62	1
2-Chlorophenol	ND		ug/l	2.0	0.63	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.77	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.6	1
2-Nitrophenol	ND		ug/l	10	1.5	1

Project Name: PORT IVORY
Lab Number: L1610205
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-04
Client ID: PRW-15
Sample Location: STATEN ISLAND, NY
Date Collected: 04/07/16 12:52
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
4-Nitrophenol	ND		ug/l	10	1.8	1
2,4-Dinitrophenol	ND		ug/l	20	5.5	1
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1	1
Phenol	ND		ug/l	5.0	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	53		21-120
Phenol-d6	38		10-120
Nitrobenzene-d5	93		23-120
2-Fluorobiphenyl	93		15-120
2,4,6-Tribromophenol	**126**	Q	10-120
4-Terphenyl-d14	106		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-04
Client ID: PRW-15
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/14/16 13:27
Analyst: KV

Date Collected: 04/07/16 12:52
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/12/16 18:35

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.20	0.04	1
2-Chloronaphthalene	ND		ug/l	0.20	0.04	1
Fluoranthene	ND		ug/l	0.20	0.04	1
Hexachlorobutadiene	ND		ug/l	0.50	0.04	1
Naphthalene	ND		ug/l	0.20	0.04	1
Benzo(a)anthracene	ND		ug/l	0.20	0.02	1
Benzo(a)pyrene	ND		ug/l	0.20	0.04	1
Benzo(b)fluoranthene	ND		ug/l	0.20	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04	1
Chrysene	ND		ug/l	0.20	0.04	1
Acenaphthylene	ND		ug/l	0.20	0.04	1
Anthracene	ND		ug/l	0.20	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.20	0.04	1
Fluorene	ND		ug/l	0.20	0.04	1
Phenanthrene	ND		ug/l	0.20	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.20	0.04	1
Pyrene	ND		ug/l	0.20	0.04	1
Pentachlorophenol	ND		ug/l	0.80	0.22	1
Hexachlorobenzene	ND		ug/l	0.80	0.03	1
Hexachloroethane	ND		ug/l	0.80	0.03	1

Project Name: PORT IVORY **Lab Number:** L1610205

Project Number: P11955502 **Report Date:** 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-04 Date Collected: 04/07/16 12:52

Client ID: PRW-15 Date Received: 04/07/16

Sample Location: STATEN ISLAND, NY Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	51		21-120
Phenol-d6	39		10-120
Nitrobenzene-d5	91		23-120
2-Fluorobiphenyl	104		15-120
2,4,6-Tribromophenol	100		10-120
4-Terphenyl-d14	123		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-05
Client ID: PRW-12
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/14/16 16:01
Analyst: RC

Date Collected: 04/07/16 08:46
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/12/16 22:43

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66	1
Benzidine	ND		ug/l	20	8.1	1
n-Nitrosodimethylamine	ND		ug/l	2.0	0.67	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4	1
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84	1
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1	1
Azobenzene	ND		ug/l	2.0	0.75	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63	1
Hexachlorocyclopentadiene	ND		ug/l	20	7.8	1
Isophorone	ND		ug/l	5.0	0.60	1
Nitrobenzene	ND		ug/l	2.0	0.75	1
NDPA/DPA	ND		ug/l	2.0	0.64	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	0.91	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.3	1
Di-n-butylphthalate	ND		ug/l	5.0	0.69	1
Di-n-octylphthalate	ND		ug/l	5.0	1.1	1
Diethyl phthalate	ND		ug/l	5.0	0.63	1
Dimethyl phthalate	ND		ug/l	5.0	0.65	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.62	1
2-Chlorophenol	ND		ug/l	2.0	0.63	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.77	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.6	1
2-Nitrophenol	ND		ug/l	10	1.5	1

Project Name: PORT IVORY
Lab Number: L1610205
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-05
Client ID: PRW-12
Sample Location: STATEN ISLAND, NY
Date Collected: 04/07/16 08:46
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
4-Nitrophenol	ND		ug/l	10	1.8	1
2,4-Dinitrophenol	ND		ug/l	20	5.5	1
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1	1
Phenol	7.1		ug/l	5.0	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	54		21-120
Phenol-d6	39		10-120
Nitrobenzene-d5	92		23-120
2-Fluorobiphenyl	87		15-120
2,4,6-Tribromophenol	109		10-120
4-Terphenyl-d14	91		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-05
Client ID: PRW-12
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/14/16 13:57
Analyst: KV

Date Collected: 04/07/16 08:46
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)
Extraction Method: EPA 3510C
Extraction Date: 04/12/16 22:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.52		ug/l	0.20	0.04	1
2-Chloronaphthalene	ND		ug/l	0.20	0.04	1
Fluoranthene	0.12	J	ug/l	0.20	0.04	1
Hexachlorobutadiene	ND		ug/l	0.50	0.04	1
Naphthalene	1.1		ug/l	0.20	0.04	1
Benzo(a)anthracene	ND		ug/l	0.20	0.02	1
Benzo(a)pyrene	ND		ug/l	0.20	0.04	1
Benzo(b)fluoranthene	ND		ug/l	0.20	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04	1
Chrysene	ND		ug/l	0.20	0.04	1
Acenaphthylene	ND		ug/l	0.20	0.04	1
Anthracene	0.12	J	ug/l	0.20	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.20	0.04	1
Fluorene	0.34		ug/l	0.20	0.04	1
Phenanthrene	0.45		ug/l	0.20	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.20	0.04	1
Pyrene	0.09	J	ug/l	0.20	0.04	1
Pentachlorophenol	ND		ug/l	0.80	0.22	1
Hexachlorobenzene	ND		ug/l	0.80	0.03	1
Hexachloroethane	ND		ug/l	0.80	0.03	1

Project Name: PORT IVORY **Lab Number:** L1610205

Project Number: P11955502 **Report Date:** 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-05 Date Collected: 04/07/16 08:46

Client ID: PRW-12 Date Received: 04/07/16

Sample Location: STATEN ISLAND, NY Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	46		21-120
Phenol-d6	33		10-120
Nitrobenzene-d5	78		23-120
2-Fluorobiphenyl	88		15-120
2,4,6-Tribromophenol	82		10-120
4-Terphenyl-d14	96		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-06
Client ID: PRW-10
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/13/16 14:14
Analyst: AS

Date Collected: 04/07/16 09:46
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/13/16 02:09

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66	1
Benzidine	ND		ug/l	20	8.1	1
n-Nitrosodimethylamine	ND		ug/l	2.0	0.67	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4	1
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84	1
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1	1
Azobenzene	ND		ug/l	2.0	0.75	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63	1
Hexachlorocyclopentadiene	ND		ug/l	20	7.8	1
Isophorone	ND		ug/l	5.0	0.60	1
Nitrobenzene	ND		ug/l	2.0	0.75	1
NDPA/DPA	ND		ug/l	2.0	0.64	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	0.91	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.3	1
Di-n-butylphthalate	ND		ug/l	5.0	0.69	1
Di-n-octylphthalate	ND		ug/l	5.0	1.1	1
Diethyl phthalate	ND		ug/l	5.0	0.63	1
Dimethyl phthalate	ND		ug/l	5.0	0.65	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.62	1
2-Chlorophenol	ND		ug/l	2.0	0.63	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.77	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.6	1
2-Nitrophenol	ND		ug/l	10	1.5	1

Project Name: PORT IVORY
Lab Number: L1610205
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-06
Client ID: PRW-10
Sample Location: STATEN ISLAND, NY
Date Collected: 04/07/16 09:46
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
4-Nitrophenol	ND		ug/l	10	1.8	1
2,4-Dinitrophenol	ND		ug/l	20	5.5	1
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1	1
Phenol	ND		ug/l	5.0	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	45		21-120
Phenol-d6	32		10-120
Nitrobenzene-d5	83		23-120
2-Fluorobiphenyl	78		15-120
2,4,6-Tribromophenol	97		10-120
4-Terphenyl-d14	87		41-149

Project Name: PORT IVORY
Lab Number: L1610205
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-06
Client ID: PRW-10
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/14/16 03:18
Analyst: KV

Date Collected: 04/07/16 09:46
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/13/16 02:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.20	0.04	1
2-Chloronaphthalene	ND		ug/l	0.20	0.04	1
Fluoranthene	ND		ug/l	0.20	0.04	1
Hexachlorobutadiene	ND		ug/l	0.50	0.04	1
Naphthalene	ND		ug/l	0.20	0.04	1
Benzo(a)anthracene	ND		ug/l	0.20	0.02	1
Benzo(a)pyrene	ND		ug/l	0.20	0.04	1
Benzo(b)fluoranthene	ND		ug/l	0.20	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04	1
Chrysene	ND		ug/l	0.20	0.04	1
Acenaphthylene	ND		ug/l	0.20	0.04	1
Anthracene	ND		ug/l	0.20	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.20	0.04	1
Fluorene	ND		ug/l	0.20	0.04	1
Phenanthrene	ND		ug/l	0.20	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.20	0.04	1
Pyrene	ND		ug/l	0.20	0.04	1
Pentachlorophenol	ND		ug/l	0.80	0.22	1
Hexachlorobenzene	ND		ug/l	0.80	0.03	1
Hexachloroethane	ND		ug/l	0.80	0.03	1

Project Name: PORT IVORY **Lab Number:** L1610205

Project Number: P11955502 **Report Date:** 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-06 Date Collected: 04/07/16 09:46

Client ID: PRW-10 Date Received: 04/07/16

Sample Location: STATEN ISLAND, NY Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	53		21-120
Phenol-d6	39		10-120
Nitrobenzene-d5	86		23-120
2-Fluorobiphenyl	96		15-120
2,4,6-Tribromophenol	93		10-120
4-Terphenyl-d14	113		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-07
Client ID: PRW-05
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/13/16 14:40
Analyst: AS

Date Collected: 04/07/16 10:56
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/13/16 02:09

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66	1
Benzidine	ND		ug/l	20	8.1	1
n-Nitrosodimethylamine	ND		ug/l	2.0	0.67	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4	1
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84	1
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1	1
Azobenzene	ND		ug/l	2.0	0.75	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63	1
Hexachlorocyclopentadiene	ND		ug/l	20	7.8	1
Isophorone	ND		ug/l	5.0	0.60	1
Nitrobenzene	ND		ug/l	2.0	0.75	1
NDPA/DPA	ND		ug/l	2.0	0.64	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	0.91	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.3	1
Di-n-butylphthalate	ND		ug/l	5.0	0.69	1
Di-n-octylphthalate	ND		ug/l	5.0	1.1	1
Diethyl phthalate	ND		ug/l	5.0	0.63	1
Dimethyl phthalate	ND		ug/l	5.0	0.65	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.62	1
2-Chlorophenol	ND		ug/l	2.0	0.63	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.77	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.6	1
2-Nitrophenol	ND		ug/l	10	1.5	1

Project Name: PORT IVORY
Lab Number: L1610205
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-07
Client ID: PRW-05
Sample Location: STATEN ISLAND, NY
Date Collected: 04/07/16 10:56
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
4-Nitrophenol	ND		ug/l	10	1.8	1
2,4-Dinitrophenol	ND		ug/l	20	5.5	1
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1	1
Phenol	ND		ug/l	5.0	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	40		21-120
Phenol-d6	30		10-120
Nitrobenzene-d5	75		23-120
2-Fluorobiphenyl	74		15-120
2,4,6-Tribromophenol	99		10-120
4-Terphenyl-d14	95		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-07
Client ID: PRW-05
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/14/16 03:49
Analyst: KV

Date Collected: 04/07/16 10:56
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/13/16 02:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.20	0.04	1
2-Chloronaphthalene	ND		ug/l	0.20	0.04	1
Fluoranthene	ND		ug/l	0.20	0.04	1
Hexachlorobutadiene	ND		ug/l	0.50	0.04	1
Naphthalene	ND		ug/l	0.20	0.04	1
Benzo(a)anthracene	ND		ug/l	0.20	0.02	1
Benzo(a)pyrene	ND		ug/l	0.20	0.04	1
Benzo(b)fluoranthene	ND		ug/l	0.20	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04	1
Chrysene	ND		ug/l	0.20	0.04	1
Acenaphthylene	ND		ug/l	0.20	0.04	1
Anthracene	ND		ug/l	0.20	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.20	0.04	1
Fluorene	ND		ug/l	0.20	0.04	1
Phenanthrene	ND		ug/l	0.20	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.20	0.04	1
Pyrene	ND		ug/l	0.20	0.04	1
Pentachlorophenol	ND		ug/l	0.80	0.22	1
Hexachlorobenzene	ND		ug/l	0.80	0.03	1
Hexachloroethane	ND		ug/l	0.80	0.03	1

Project Name: PORT IVORY **Lab Number:** L1610205

Project Number: P11955502 **Report Date:** 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-07 Date Collected: 04/07/16 10:56

Client ID: PRW-05 Date Received: 04/07/16

Sample Location: STATEN ISLAND, NY Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	48		21-120
Phenol-d6	38		10-120
Nitrobenzene-d5	82		23-120
2-Fluorobiphenyl	92		15-120
2,4,6-Tribromophenol	98		10-120
4-Terphenyl-d14	122		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-08
Client ID: PRW-09
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/13/16 15:04
Analyst: AS

Date Collected: 04/07/16 12:16
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/13/16 02:09

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66	1
Benzidine	ND		ug/l	20	8.1	1
n-Nitrosodimethylamine	ND		ug/l	2.0	0.67	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4	1
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84	1
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1	1
Azobenzene	ND		ug/l	2.0	0.75	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63	1
Hexachlorocyclopentadiene	ND		ug/l	20	7.8	1
Isophorone	ND		ug/l	5.0	0.60	1
Nitrobenzene	ND		ug/l	2.0	0.75	1
NDPA/DPA	ND		ug/l	2.0	0.64	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	0.91	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.3	1
Di-n-butylphthalate	ND		ug/l	5.0	0.69	1
Di-n-octylphthalate	ND		ug/l	5.0	1.1	1
Diethyl phthalate	ND		ug/l	5.0	0.63	1
Dimethyl phthalate	ND		ug/l	5.0	0.65	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.62	1
2-Chlorophenol	ND		ug/l	2.0	0.63	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.77	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.6	1
2-Nitrophenol	ND		ug/l	10	1.5	1

Project Name: PORT IVORY
Lab Number: L1610205
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-08
Client ID: PRW-09
Sample Location: STATEN ISLAND, NY
Date Collected: 04/07/16 12:16
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
4-Nitrophenol	ND		ug/l	10	1.8	1
2,4-Dinitrophenol	ND		ug/l	20	5.5	1
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1	1
Phenol	ND		ug/l	5.0	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	51		21-120
Phenol-d6	38		10-120
Nitrobenzene-d5	98		23-120
2-Fluorobiphenyl	92		15-120
2,4,6-Tribromophenol	106		10-120
4-Terphenyl-d14	99		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-08
Client ID: PRW-09
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/14/16 04:19
Analyst: KV

Date Collected: 04/07/16 12:16
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/13/16 02:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.20	0.04	1
2-Chloronaphthalene	ND		ug/l	0.20	0.04	1
Fluoranthene	ND		ug/l	0.20	0.04	1
Hexachlorobutadiene	ND		ug/l	0.50	0.04	1
Naphthalene	ND		ug/l	0.20	0.04	1
Benzo(a)anthracene	ND		ug/l	0.20	0.02	1
Benzo(a)pyrene	ND		ug/l	0.20	0.04	1
Benzo(b)fluoranthene	ND		ug/l	0.20	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04	1
Chrysene	ND		ug/l	0.20	0.04	1
Acenaphthylene	ND		ug/l	0.20	0.04	1
Anthracene	ND		ug/l	0.20	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.20	0.04	1
Fluorene	ND		ug/l	0.20	0.04	1
Phenanthrene	ND		ug/l	0.20	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.20	0.04	1
Pyrene	ND		ug/l	0.20	0.04	1
Pentachlorophenol	ND		ug/l	0.80	0.22	1
Hexachlorobenzene	ND		ug/l	0.80	0.03	1
Hexachloroethane	ND		ug/l	0.80	0.03	1

Project Name: PORT IVORY
Lab Number: L1610205
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-08
Client ID: PRW-09
Sample Location: STATEN ISLAND, NY
Date Collected: 04/07/16 12:16
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	56		21-120
Phenol-d6	42		10-120
Nitrobenzene-d5	92		23-120
2-Fluorobiphenyl	101		15-120
2,4,6-Tribromophenol	96		10-120
4-Terphenyl-d14	115		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-09
Client ID: FIELD BLANK
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/13/16 15:29
Analyst: AS

Date Collected: 04/07/16 08:05
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/13/16 02:09

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66	1
Benzidine	ND		ug/l	20	8.1	1
n-Nitrosodimethylamine	ND		ug/l	2.0	0.67	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4	1
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84	1
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1	1
Azobenzene	ND		ug/l	2.0	0.75	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63	1
Hexachlorocyclopentadiene	ND		ug/l	20	7.8	1
Isophorone	ND		ug/l	5.0	0.60	1
Nitrobenzene	ND		ug/l	2.0	0.75	1
NDPA/DPA	ND		ug/l	2.0	0.64	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	0.91	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.3	1
Di-n-butylphthalate	ND		ug/l	5.0	0.69	1
Di-n-octylphthalate	ND		ug/l	5.0	1.1	1
Diethyl phthalate	ND		ug/l	5.0	0.63	1
Dimethyl phthalate	ND		ug/l	5.0	0.65	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.62	1
2-Chlorophenol	ND		ug/l	2.0	0.63	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.77	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.6	1
2-Nitrophenol	ND		ug/l	10	1.5	1

Project Name: PORT IVORY
Lab Number: L1610205
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-09
Client ID: FIELD BLANK
Sample Location: STATEN ISLAND, NY
Date Collected: 04/07/16 08:05
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
4-Nitrophenol	ND		ug/l	10	1.8	1
2,4-Dinitrophenol	ND		ug/l	20	5.5	1
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1	1
Phenol	ND		ug/l	5.0	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	48		21-120
Phenol-d6	33		10-120
Nitrobenzene-d5	91		23-120
2-Fluorobiphenyl	85		15-120
2,4,6-Tribromophenol	94		10-120
4-Terphenyl-d14	91		41-149

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-09
Client ID: FIELD BLANK
Sample Location: STATEN ISLAND, NY

Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/14/16 04:49
Analyst: KV

Date Collected: 04/07/16 08:05
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Extraction Method: EPA 3510C
Extraction Date: 04/13/16 02:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.20	0.04	1
2-Chloronaphthalene	ND		ug/l	0.20	0.04	1
Fluoranthene	ND		ug/l	0.20	0.04	1
Hexachlorobutadiene	ND		ug/l	0.50	0.04	1
Naphthalene	ND		ug/l	0.20	0.04	1
Benzo(a)anthracene	ND		ug/l	0.20	0.02	1
Benzo(a)pyrene	ND		ug/l	0.20	0.04	1
Benzo(b)fluoranthene	ND		ug/l	0.20	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04	1
Chrysene	ND		ug/l	0.20	0.04	1
Acenaphthylene	ND		ug/l	0.20	0.04	1
Anthracene	ND		ug/l	0.20	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.20	0.04	1
Fluorene	ND		ug/l	0.20	0.04	1
Phenanthrene	ND		ug/l	0.20	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.20	0.04	1
Pyrene	ND		ug/l	0.20	0.04	1
Pentachlorophenol	ND		ug/l	0.80	0.22	1
Hexachlorobenzene	ND		ug/l	0.80	0.03	1
Hexachloroethane	ND		ug/l	0.80	0.03	1

Project Name: PORT IVORY
Lab Number: L1610205
Project Number: P11955502
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-09
Client ID: FIELD BLANK
Sample Location: STATEN ISLAND, NY
Date Collected: 04/07/16 08:05
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	56		21-120
Phenol-d6	42		10-120
Nitrobenzene-d5	96		23-120
2-Fluorobiphenyl	102		15-120
2,4,6-Tribromophenol	90		10-120
4-Terphenyl-d14	118		41-149

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 04/14/16 11:12
Analyst: RC

Extraction Method: EPA 3510C
Extraction Date: 04/12/16 18:35

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG882931-1					
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66
Benzidine	ND		ug/l	20	8.1
n-Nitrosodimethylamine	ND		ug/l	2.0	0.67
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1
Azobenzene	ND		ug/l	2.0	0.75
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63
Hexachlorocyclopentadiene	ND		ug/l	20	7.8
Isophorone	ND		ug/l	5.0	0.60
Nitrobenzene	ND		ug/l	2.0	0.75
NDPA/DPA	ND		ug/l	2.0	0.64
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	0.91
Butyl benzyl phthalate	ND		ug/l	5.0	1.3
Di-n-butylphthalate	ND		ug/l	5.0	0.69
Di-n-octylphthalate	ND		ug/l	5.0	1.1
Diethyl phthalate	ND		ug/l	5.0	0.63
Dimethyl phthalate	ND		ug/l	5.0	0.65
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68
p-Chloro-m-cresol	ND		ug/l	2.0	0.62
2-Chlorophenol	ND		ug/l	2.0	0.63
2,4-Dichlorophenol	ND		ug/l	5.0	0.77
2,4-Dimethylphenol	ND		ug/l	5.0	1.6
2-Nitrophenol	ND		ug/l	10	1.5

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 04/14/16 11:12
Analyst: RC

Extraction Method: EPA 3510C
Extraction Date: 04/12/16 18:35

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG882931-1					
4-Nitrophenol	ND		ug/l	10	1.8
2,4-Dinitrophenol	ND		ug/l	20	5.5
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1
Phenol	ND		ug/l	5.0	1.9

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	33		21-120
Phenol-d6	22		10-120
Nitrobenzene-d5	56		23-120
2-Fluorobiphenyl	54		15-120
2,4,6-Tribromophenol	45		10-120
4-Terphenyl-d14	63		41-149

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 04/14/16 01:46
Analyst: KV

Extraction Method: EPA 3510C
Extraction Date: 04/12/16 18:35

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-05 Batch: WG882932-1					
Acenaphthene	ND		ug/l	0.20	0.04
2-Chloronaphthalene	ND		ug/l	0.20	0.04
Fluoranthene	ND		ug/l	0.20	0.04
Hexachlorobutadiene	ND		ug/l	0.50	0.04
Naphthalene	ND		ug/l	0.20	0.04
Benzo(a)anthracene	ND		ug/l	0.20	0.02
Benzo(a)pyrene	ND		ug/l	0.20	0.04
Benzo(b)fluoranthene	ND		ug/l	0.20	0.02
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04
Chrysene	ND		ug/l	0.20	0.04
Acenaphthylene	ND		ug/l	0.20	0.04
Anthracene	ND		ug/l	0.20	0.04
Benzo(ghi)perylene	ND		ug/l	0.20	0.04
Fluorene	ND		ug/l	0.20	0.04
Phenanthrene	ND		ug/l	0.20	0.02
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.20	0.04
Pyrene	ND		ug/l	0.20	0.04
Pentachlorophenol	ND		ug/l	0.80	0.22
Hexachlorobenzene	ND		ug/l	0.80	0.03
Hexachloroethane	ND		ug/l	0.80	0.03

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 04/14/16 01:46
Analyst: KV

Extraction Method: EPA 3510C
Extraction Date: 04/12/16 18:35

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-05 Batch: WG882932-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	38		21-120
Phenol-d6	27		10-120
Nitrobenzene-d5	65		23-120
2-Fluorobiphenyl	71		15-120
2,4,6-Tribromophenol	62		10-120
4-Terphenyl-d14	82		41-149

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 04/13/16 11:42
Analyst: AS

Extraction Method: EPA 3510C
Extraction Date: 04/13/16 02:09

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 06-09 Batch: WG883017-1					
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.66
Benzidine	ND		ug/l	20	8.1
n-Nitrosodimethylamine	ND		ug/l	2.0	0.67
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.67
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.4
2,4-Dinitrotoluene	ND		ug/l	5.0	0.84
2,6-Dinitrotoluene	ND		ug/l	5.0	1.1
Azobenzene	ND		ug/l	2.0	0.75
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.62
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.73
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.70
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.63
Hexachlorocyclopentadiene	ND		ug/l	20	7.8
Isophorone	ND		ug/l	5.0	0.60
Nitrobenzene	ND		ug/l	2.0	0.75
NDPA/DPA	ND		ug/l	2.0	0.64
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.70
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	0.91
Butyl benzyl phthalate	ND		ug/l	5.0	1.3
Di-n-butylphthalate	ND		ug/l	5.0	0.69
Di-n-octylphthalate	ND		ug/l	5.0	1.1
Diethyl phthalate	ND		ug/l	5.0	0.63
Dimethyl phthalate	ND		ug/l	5.0	0.65
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.68
p-Chloro-m-cresol	ND		ug/l	2.0	0.62
2-Chlorophenol	ND		ug/l	2.0	0.63
2,4-Dichlorophenol	ND		ug/l	5.0	0.77
2,4-Dimethylphenol	ND		ug/l	5.0	1.6
2-Nitrophenol	ND		ug/l	10	1.5

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 04/13/16 11:42
Analyst: AS

Extraction Method: EPA 3510C
Extraction Date: 04/13/16 02:09

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 06-09 Batch: WG883017-1					
4-Nitrophenol	ND		ug/l	10	1.8
2,4-Dinitrophenol	ND		ug/l	20	5.5
4,6-Dinitro-o-cresol	ND		ug/l	10	2.1
Phenol	ND		ug/l	5.0	1.9

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	53		21-120
Phenol-d6	38		10-120
Nitrobenzene-d5	91		23-120
2-Fluorobiphenyl	81		15-120
2,4,6-Tribromophenol	93		10-120
4-Terphenyl-d14	100		41-149

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 04/14/16 00:15
Analyst: KV

Extraction Method: EPA 3510C
Extraction Date: 04/13/16 02:10

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 06-09 Batch: WG883018-1					
Acenaphthene	ND		ug/l	0.20	0.04
2-Chloronaphthalene	ND		ug/l	0.20	0.04
Fluoranthene	ND		ug/l	0.20	0.04
Hexachlorobutadiene	ND		ug/l	0.50	0.04
Naphthalene	ND		ug/l	0.20	0.04
Benzo(a)anthracene	ND		ug/l	0.20	0.02
Benzo(a)pyrene	ND		ug/l	0.20	0.04
Benzo(b)fluoranthene	ND		ug/l	0.20	0.02
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04
Chrysene	ND		ug/l	0.20	0.04
Acenaphthylene	ND		ug/l	0.20	0.04
Anthracene	ND		ug/l	0.20	0.04
Benzo(ghi)perylene	ND		ug/l	0.20	0.04
Fluorene	ND		ug/l	0.20	0.04
Phenanthrene	ND		ug/l	0.20	0.02
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.04
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.20	0.04
Pyrene	ND		ug/l	0.20	0.04
Pentachlorophenol	ND		ug/l	0.80	0.22
Hexachlorobenzene	ND		ug/l	0.80	0.03
Hexachloroethane	ND		ug/l	0.80	0.03

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 04/14/16 00:15
Analyst: KV

Extraction Method: EPA 3510C
Extraction Date: 04/13/16 02:10

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 06-09 Batch: WG883018-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	51		21-120
Phenol-d6	39		10-120
Nitrobenzene-d5	79		23-120
2-Fluorobiphenyl	83		15-120
2,4,6-Tribromophenol	67		10-120
4-Terphenyl-d14	86		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: PORT IVORY

Project Number: P11955502

Lab Number: L1610205

Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG882931-2 WG882931-3								
Acenaphthene	80		64		37-111	22		30
1,2,4-Trichlorobenzene	65		54		39-98	18		30
Benzidine	39		28		10-66	**33**	Q	30
n-Nitrosodimethylamine	36		32		22-100	12		30
Hexachlorobenzene	85		66		40-140	25		30
Bis(2-chloroethyl)ether	70		59		40-140	17		30
2-Chloronaphthalene	78		63		40-140	21		30
1,2-Dichlorobenzene	62		53		40-140	16		30
1,3-Dichlorobenzene	59		51		40-140	15		30
1,4-Dichlorobenzene	59		51		36-97	15		30
3,3'-Dichlorobenzidine	51		41		40-140	22		30
2,4-Dinitrotoluene	94		73		24-96	25		30
2,6-Dinitrotoluene	87		69		40-140	23		30
Azobenzene	101		78		40-140	26		30
Fluoranthene	95		73		40-140	26		30
4-Chlorophenyl phenyl ether	82		65		40-140	23		30
4-Bromophenyl phenyl ether	86		67		40-140	25		30
Bis(2-chloroisopropyl)ether	83		69		40-140	18		30
Bis(2-chloroethoxy)methane	80		63		40-140	24		30
Hexachlorobutadiene	66		55		40-140	18		30
Hexachlorocyclopentadiene	65		51		40-140	24		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG882931-2 WG882931-3								
Hexachloroethane	66		56		40-140	16		30
Isophorone	94		73		40-140	25		30
Naphthalene	68		56		40-140	19		30
Nitrobenzene	86		69		40-140	22		30
NitrosoDiPhenylAmine(NDPA)/DPA	88		70		40-140	23		30
n-Nitrosodi-n-propylamine	90		71		29-132	24		30
Bis(2-Ethylhexyl)phthalate	93		68		40-140	**31**	Q	30
Butyl benzyl phthalate	97		74		40-140	27		30
Di-n-butylphthalate	101		76		40-140	28		30
Di-n-octylphthalate	95		70		40-140	30		30
Diethyl phthalate	96		74		40-140	26		30
Dimethyl phthalate	90		70		40-140	25		30
Benzo(a)anthracene	92		69		40-140	29		30
Benzo(a)pyrene	91		71		40-140	25		30
Benzo(b)fluoranthene	94		70		40-140	29		30
Benzo(k)fluoranthene	93		74		40-140	23		30
Chrysene	83		62		40-140	29		30
Acenaphthylene	85		67		45-123	24		30
Anthracene	91		71		40-140	25		30
Benzo(ghi)perylene	94		72		40-140	27		30
Fluorene	85		68		40-140	22		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG882931-2 WG882931-3								
Phenanthrene	85		67		40-140	24		30
Dibenzo(a,h)anthracene	97		75		40-140	26		30
Indeno(1,2,3-cd)Pyrene	100		78		40-140	25		30
Pyrene	92		70		26-127	27		30
Biphenyl	77		62		54-104	22		30
Aniline	**38**	Q	**32**	Q	40-140	17		30
4-Chloroaniline	56		51		40-140	9		30
2-Nitroaniline	84		69		52-143	20		30
3-Nitroaniline	57		50		25-145	13		30
4-Nitroaniline	75		58		51-143	26		30
Dibenzofuran	81		65		40-140	22		30
2-Methylnaphthalene	73		60		40-140	20		30
1,2,4,5-Tetrachlorobenzene	71		57		2-134	22		30
Acetophenone	80		63		39-129	24		30
2,4,6-Trichlorophenol	79		61		30-130	26		30
P-Chloro-M-Cresol	95		73		23-97	26		30
2-Chlorophenol	74		59		27-123	23		30
2,4-Dichlorophenol	83		67		30-130	21		30
2,4-Dimethylphenol	89		70		30-130	24		30
2-Nitrophenol	83		67		30-130	21		30
4-Nitrophenol	53		42		10-80	23		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: PORT IVORY

Project Number: P11955502

Lab Number: L1610205

Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG882931-2 WG882931-3								
2,4-Dinitrophenol	82		63		20-130	26		30
4,6-Dinitro-o-cresol	96		72		20-164	29		30
Pentachlorophenol	80		61		9-103	27		30
Phenol	37		30		12-110	21		30
2-Methylphenol	72		57		30-130	23		30
3-Methylphenol/4-Methylphenol	65		52		30-130	22		30
2,4,5-Trichlorophenol	90		68		30-130	28		30
Benzoic Acid	26		27		10-110	4		30
Benzyl Alcohol	71		55		15-110	25		30
Carbazole	94		73		55-144	25		30
Pyridine	25		23		10-66	8		30
Benzaldehyde	65		55		40-140	17		30
Caprolactam	22		18		10-130	20		30
Atrazine	100		78		40-140	25		30
2,3,4,6-Tetrachlorophenol	88		68		54-145	26		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: PORT IVORY

Project Number: P11955502

Lab Number: L1610205

Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG882931-2 WG882931-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	48		39		21-120
Phenol-d6	36		29		10-120
Nitrobenzene-d5	86		70		23-120
2-Fluorobiphenyl	78		62		15-120
2,4,6-Tribromophenol	84		66		10-120
4-Terphenyl-d14	90		69		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: PORT IVORY

Project Number: P11955502

Lab Number: L1610205

Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-05 Batch: WG882932-2 WG882932-3								
Acenaphthene	69		83		37-111	18		40
2-Chloronaphthalene	74		87		40-140	16		40
Fluoranthene	80		97		40-140	19		40
Hexachlorobutadiene	68		78		40-140	14		40
Naphthalene	70		81		40-140	15		40
Benzo(a)anthracene	73		90		40-140	21		40
Benzo(a)pyrene	73		89		40-140	20		40
Benzo(b)fluoranthene	77		92		40-140	18		40
Benzo(k)fluoranthene	72		85		40-140	17		40
Chrysene	71		88		40-140	21		40
Acenaphthylene	75		88		40-140	16		40
Anthracene	70		84		40-140	18		40
Benzo(ghi)perylene	66		80		40-140	19		40
Fluorene	80		96		40-140	18		40
Phenanthrene	68		83		40-140	20		40
Dibenzo(a,h)anthracene	67		81		40-140	19		40
Indeno(1,2,3-cd)Pyrene	67		81		40-140	19		40
Pyrene	74		89		26-127	18		40
2-Methylnaphthalene	73		86		40-140	16		40
Pentachlorophenol	57		73		9-103	25		40
Hexachlorobenzene	58		71		40-140	20		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: PORT IVORY

Project Number: P11955502

Lab Number: L1610205

Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-05 Batch: WG882932-2 WG882932-3								
Hexachloroethane	74		81		40-140	9		40

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	42		50		21-120
Phenol-d6	30		37		10-120
Nitrobenzene-d5	74		86		23-120
2-Fluorobiphenyl	82		97		15-120
2,4,6-Tribromophenol	65		89		10-120
4-Terphenyl-d14	89		109		41-149

Lab Control Sample Analysis
Batch Quality Control

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 06-09 Batch: WG883017-2 WG883017-3								
Acenaphthene	92		89		37-111	3		30
1,2,4-Trichlorobenzene	74		75		39-98	1		30
Benzidine	**0**	Q	**3**	Q	10-66	NC		30
n-Nitrosodimethylamine	50		50		22-100	0		30
Hexachlorobenzene	108		105		40-140	3		30
Bis(2-chloroethyl)ether	88		87		40-140	1		30
2-Chloronaphthalene	94		92		40-140	2		30
1,2-Dichlorobenzene	73		74		40-140	1		30
1,3-Dichlorobenzene	69		71		40-140	3		30
1,4-Dichlorobenzene	70		72		36-97	3		30
3,3'-Dichlorobenzidine	60		55		40-140	9		30
2,4-Dinitrotoluene	**122**	Q	**121**	Q	24-96	1		30
2,6-Dinitrotoluene	120		115		40-140	4		30
Azobenzene	98		97		40-140	1		30
Fluoranthene	104		101		40-140	3		30
4-Chlorophenyl phenyl ether	102		98		40-140	4		30
4-Bromophenyl phenyl ether	104		101		40-140	3		30
Bis(2-chloroisopropyl)ether	83		82		40-140	1		30
Bis(2-chloroethoxy)methane	100		97		40-140	3		30
Hexachlorobutadiene	71		72		40-140	1		30
Hexachlorocyclopentadiene	63		64		40-140	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: PORT IVORY

Project Number: P11955502

Lab Number: L1610205

Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 06-09 Batch: WG883017-2 WG883017-3								
Hexachloroethane	70		71		40-140	1		30
Isophorone	104		102		40-140	2		30
Naphthalene	81		80		40-140	1		30
Nitrobenzene	108		105		40-140	3		30
NitrosoDiPhenylAmine(NDPA)/DPA	101		97		40-140	4		30
n-Nitrosodi-n-propylamine	104		101		29-132	3		30
Bis(2-Ethylhexyl)phthalate	106		103		40-140	3		30
Butyl benzyl phthalate	118		115		40-140	3		30
Di-n-butylphthalate	105		101		40-140	4		30
Di-n-octylphthalate	107		102		40-140	5		30
Diethyl phthalate	106		102		40-140	4		30
Dimethyl phthalate	104		100		40-140	4		30
Benzo(a)anthracene	99		96		40-140	3		30
Benzo(a)pyrene	104		100		40-140	4		30
Benzo(b)fluoranthene	97		96		40-140	1		30
Benzo(k)fluoranthene	104		99		40-140	5		30
Chrysene	100		98		40-140	2		30
Acenaphthylene	102		99		45-123	3		30
Anthracene	100		96		40-140	4		30
Benzo(ghi)perylene	102		100		40-140	2		30
Fluorene	100		96		40-140	4		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 06-09 Batch: WG883017-2 WG883017-3								
Phenanthrene	97		94		40-140	3		30
Dibenzo(a,h)anthracene	102		101		40-140	1		30
Indeno(1,2,3-cd)Pyrene	104		101		40-140	3		30
Pyrene	102		100		26-127	2		30
Biphenyl	84		81		54-104	4		30
Aniline	**25**	Q	**22**	Q	40-140	13		30
4-Chloroaniline	62		61		40-140	2		30
2-Nitroaniline	113		109		52-143	4		30
3-Nitroaniline	89		86		25-145	3		30
4-Nitroaniline	113		106		51-143	6		30
Dibenzofuran	97		94		40-140	3		30
2-Methylnaphthalene	87		85		40-140	2		30
1,2,4,5-Tetrachlorobenzene	80		78		2-134	3		30
Acetophenone	94		92		39-129	2		30
2,4,6-Trichlorophenol	112		108		30-130	4		30
P-Chloro-M-Cresol	**104**	Q	**103**	Q	23-97	1		30
2-Chlorophenol	93		92		27-123	1		30
2,4-Dichlorophenol	103		99		30-130	4		30
2,4-Dimethylphenol	100		101		30-130	1		30
2-Nitrophenol	108		110		30-130	2		30
4-Nitrophenol	59		58		10-80	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: PORT IVORY

Project Number: P11955502

Lab Number: L1610205

Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 06-09 Batch: WG883017-2 WG883017-3								
2,4-Dinitrophenol	120		111		20-130	8		30
4,6-Dinitro-o-cresol	134		132		20-164	2		30
Pentachlorophenol	90		86		9-103	5		30
Phenol	52		50		12-110	4		30
2-Methylphenol	91		88		30-130	3		30
3-Methylphenol/4-Methylphenol	84		83		30-130	1		30
2,4,5-Trichlorophenol	119		115		30-130	3		30
Benzoic Acid	45		43		10-110	5		30
Benzyl Alcohol	83		80		15-110	4		30
Carbazole	99		96		55-144	3		30
Pyridine	**4**	Q	**6**	Q	10-66	**39**	Q	30
Benzaldehyde	81		80		40-140	1		30
Caprolactam	27		27		10-130	0		30
Atrazine	126		122		40-140	3		30
2,3,4,6-Tetrachlorophenol	124		116		54-145	7		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: PORT IVORY

Project Number: P11955502

Lab Number: L1610205

Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 06-09 Batch: WG883017-2 WG883017-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	59		58		21-120
Phenol-d6	47		46		10-120
Nitrobenzene-d5	111		111		23-120
2-Fluorobiphenyl	93		88		15-120
2,4,6-Tribromophenol	112		109		10-120
4-Terphenyl-d14	95		93		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: PORT IVORY

Project Number: P11955502

Lab Number: L1610205

Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 06-09 Batch: WG883018-2 WG883018-3								
Acenaphthene	94		86		37-111	9		40
2-Chloronaphthalene	99		89		40-140	11		40
Fluoranthene	112		100		40-140	11		40
Hexachlorobutadiene	86		71		40-140	19		40
Naphthalene	96		81		40-140	17		40
Benzo(a)anthracene	104		78		40-140	29		40
Benzo(a)pyrene	104		77		40-140	30		40
Benzo(b)fluoranthene	107		77		40-140	33		40
Benzo(k)fluoranthene	96		71		40-140	30		40
Chrysene	102		76		40-140	29		40
Acenaphthylene	108		101		40-140	7		40
Anthracene	99		88		40-140	12		40
Benzo(ghi)perylene	91		66		40-140	32		40
Fluorene	108		101		40-140	7		40
Phenanthrene	94		83		40-140	12		40
Dibenzo(a,h)anthracene	93		69		40-140	30		40
Indeno(1,2,3-cd)Pyrene	94		69		40-140	31		40
Pyrene	103		93		26-127	10		40
2-Methylnaphthalene	99		88		40-140	12		40
Pentachlorophenol	86		80		9-103	7		40
Hexachlorobenzene	80		70		40-140	13		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: PORT IVORY

Project Number: P11955502

Lab Number: L1610205

Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 06-09 Batch: WG883018-2 WG883018-3								
Hexachloroethane	95		52		40-140	**59**	Q	40

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	68		53		21-120
Phenol-d6	52		43		10-120
Nitrobenzene-d5	101		84		23-120
2-Fluorobiphenyl	107		95		15-120
2,4,6-Tribromophenol	102		92		10-120
4-Terphenyl-d14	121		107		41-149

METALS

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-01
Client ID: PRW-08
Sample Location: STATEN ISLAND, NY
Matrix: Water
Date Collected: 04/07/16 08:32
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	0.0011	J	mg/l	0.0040	0.0001	2	04/09/16 04:04	04/12/16 10:28	EPA 3005A	1,6020A	TT
Arsenic, Total	0.0377		mg/l	0.0010	0.0002	2	04/09/16 04:04	04/12/16 10:28	EPA 3005A	1,6020A	TT
Barium, Total	0.0074		mg/l	0.0010	0.0001	2	04/09/16 04:04	04/12/16 10:28	EPA 3005A	1,6020A	TT
Beryllium, Total	ND		mg/l	0.0010	0.0003	2	04/09/16 04:04	04/12/16 10:28	EPA 3005A	1,6020A	TT
Cadmium, Total	ND		mg/l	0.0004	0.0001	2	04/09/16 04:04	04/12/16 10:28	EPA 3005A	1,6020A	TT
Chromium, Total	0.001	J	mg/l	0.0020	0.0005	2	04/09/16 04:04	04/12/16 10:28	EPA 3005A	1,6020A	TT
Copper, Total	0.0016	J	mg/l	0.0020	0.0005	2	04/09/16 04:04	04/12/16 10:28	EPA 3005A	1,6020A	TT
Lead, Total	0.0008	J	mg/l	0.0020	0.0003	2	04/09/16 04:04	04/12/16 10:28	EPA 3005A	1,6020A	TT
Mercury, Total	ND		mg/l	0.00020	0.00006	1	04/12/16 09:45	04/12/16 20:45	EPA 7470A	1,7470A	EA
Nickel, Total	0.0023	J	mg/l	0.0060	0.0002	2	04/09/16 04:04	04/12/16 10:28	EPA 3005A	1,6020A	TT
Selenium, Total	ND		mg/l	0.010	0.002	2	04/09/16 04:04	04/12/16 10:28	EPA 3005A	1,6020A	TT
Silver, Total	0.0002	J	mg/l	0.0008	0.0002	2	04/09/16 04:04	04/12/16 10:28	EPA 3005A	1,6020A	TT
Thallium, Total	ND		mg/l	0.0010	0.0001	2	04/09/16 04:04	04/12/16 10:28	EPA 3005A	1,6020A	TT
Zinc, Total	0.0066	J	mg/l	0.0200	0.0051	2	04/09/16 04:04	04/12/16 10:28	EPA 3005A	1,6020A	TT
Dissolved Metals - Westborough Lab											
Antimony, Dissolved	0.0011	J	mg/l	0.0040	0.0001	2	04/09/16 04:18	04/12/16 19:16	EPA 3005A	1,6020A	TT
Arsenic, Dissolved	0.0282		mg/l	0.0010	0.0002	2	04/09/16 04:18	04/12/16 19:16	EPA 3005A	1,6020A	TT
Barium, Dissolved	0.0075		mg/l	0.0010	0.0001	2	04/09/16 04:18	04/12/16 19:16	EPA 3005A	1,6020A	TT
Beryllium, Dissolved	ND		mg/l	0.0010	0.0003	2	04/09/16 04:18	04/12/16 19:16	EPA 3005A	1,6020A	TT
Cadmium, Dissolved	ND		mg/l	0.0004	0.0001	2	04/09/16 04:18	04/12/16 19:16	EPA 3005A	1,6020A	TT
Chromium, Dissolved	0.0006	J	mg/l	0.0020	0.0005	2	04/09/16 04:18	04/12/16 19:16	EPA 3005A	1,6020A	TT
Copper, Dissolved	0.0007	J	mg/l	0.0020	0.0005	2	04/09/16 04:18	04/12/16 19:16	EPA 3005A	1,6020A	TT
Lead, Dissolved	ND		mg/l	0.0020	0.0003	2	04/09/16 04:18	04/12/16 19:16	EPA 3005A	1,6020A	TT
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	04/12/16 09:45	04/12/16 20:19	EPA 7470A	1,7470A	EA
Nickel, Dissolved	0.0010	J	mg/l	0.0060	0.0002	2	04/09/16 04:18	04/12/16 19:16	EPA 3005A	1,6020A	TT
Selenium, Dissolved	ND		mg/l	0.010	0.002	2	04/09/16 04:18	04/12/16 19:16	EPA 3005A	1,6020A	TT
Silver, Dissolved	0.0002	J	mg/l	0.0008	0.0002	2	04/09/16 04:18	04/12/16 19:16	EPA 3005A	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0010	0.0001	2	04/09/16 04:18	04/12/16 19:16	EPA 3005A	1,6020A	TT
Zinc, Dissolved	ND		mg/l	0.0200	0.0051	2	04/09/16 04:18	04/12/16 19:16	EPA 3005A	1,6020A	TT

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-02
Client ID: PRW-14
Sample Location: STATEN ISLAND, NY
Matrix: Water
Date Collected: 04/07/16 09:47
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	0.0002	J	mg/l	0.0040	0.0001	2	04/09/16 04:04	04/12/16 10:59	EPA 3005A	1,6020A	TT
Arsenic, Total	0.0060		mg/l	0.0010	0.0002	2	04/09/16 04:04	04/12/16 10:59	EPA 3005A	1,6020A	TT
Barium, Total	0.1503		mg/l	0.0010	0.0001	2	04/09/16 04:04	04/12/16 10:59	EPA 3005A	1,6020A	TT
Beryllium, Total	ND		mg/l	0.0010	0.0003	2	04/09/16 04:04	04/12/16 10:59	EPA 3005A	1,6020A	TT
Cadmium, Total	ND		mg/l	0.0004	0.0001	2	04/09/16 04:04	04/12/16 10:59	EPA 3005A	1,6020A	TT
Chromium, Total	0.0020		mg/l	0.0020	0.0005	2	04/09/16 04:04	04/12/16 10:59	EPA 3005A	1,6020A	TT
Copper, Total	0.0011	J	mg/l	0.0020	0.0005	2	04/09/16 04:04	04/12/16 10:59	EPA 3005A	1,6020A	TT
Lead, Total	0.0005	J	mg/l	0.0020	0.0003	2	04/09/16 04:04	04/12/16 10:59	EPA 3005A	1,6020A	TT
Mercury, Total	ND		mg/l	0.00020	0.00006	1	04/12/16 09:45	04/12/16 20:50	EPA 7470A	1,7470A	EA
Nickel, Total	0.0023	J	mg/l	0.0060	0.0002	2	04/09/16 04:04	04/12/16 10:59	EPA 3005A	1,6020A	TT
Selenium, Total	ND		mg/l	0.010	0.002	2	04/09/16 04:04	04/12/16 10:59	EPA 3005A	1,6020A	TT
Silver, Total	0.0004	J	mg/l	0.0008	0.0002	2	04/09/16 04:04	04/12/16 10:59	EPA 3005A	1,6020A	TT
Thallium, Total	ND		mg/l	0.0010	0.0001	2	04/09/16 04:04	04/12/16 10:59	EPA 3005A	1,6020A	TT
Zinc, Total	0.0090	J	mg/l	0.0200	0.0051	2	04/09/16 04:04	04/12/16 10:59	EPA 3005A	1,6020A	TT
Dissolved Metals - Westborough Lab											
Antimony, Dissolved	0.0004	J	mg/l	0.0040	0.0001	2	04/09/16 04:18	04/12/16 19:22	EPA 3005A	1,6020A	TT
Arsenic, Dissolved	0.0071		mg/l	0.0010	0.0002	2	04/09/16 04:18	04/12/16 19:22	EPA 3005A	1,6020A	TT
Barium, Dissolved	0.1723		mg/l	0.0010	0.0001	2	04/09/16 04:18	04/12/16 19:22	EPA 3005A	1,6020A	TT
Beryllium, Dissolved	ND		mg/l	0.0010	0.0003	2	04/09/16 04:18	04/12/16 19:22	EPA 3005A	1,6020A	TT
Cadmium, Dissolved	ND		mg/l	0.0004	0.0001	2	04/09/16 04:18	04/12/16 19:22	EPA 3005A	1,6020A	TT
Chromium, Dissolved	0.0026		mg/l	0.0020	0.0005	2	04/09/16 04:18	04/12/16 19:22	EPA 3005A	1,6020A	TT
Copper, Dissolved	ND		mg/l	0.0020	0.0005	2	04/09/16 04:18	04/12/16 19:22	EPA 3005A	1,6020A	TT
Lead, Dissolved	ND		mg/l	0.0020	0.0003	2	04/09/16 04:18	04/12/16 19:22	EPA 3005A	1,6020A	TT
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	04/12/16 09:45	04/12/16 20:21	EPA 7470A	1,7470A	EA
Nickel, Dissolved	0.0021	J	mg/l	0.0060	0.0002	2	04/09/16 04:18	04/12/16 19:22	EPA 3005A	1,6020A	TT
Selenium, Dissolved	0.003	J	mg/l	0.010	0.002	2	04/09/16 04:18	04/12/16 19:22	EPA 3005A	1,6020A	TT
Silver, Dissolved	ND		mg/l	0.0008	0.0002	2	04/09/16 04:18	04/12/16 19:22	EPA 3005A	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0010	0.0001	2	04/09/16 04:18	04/12/16 19:22	EPA 3005A	1,6020A	TT
Zinc, Dissolved	0.0089	J	mg/l	0.0200	0.0051	2	04/09/16 04:18	04/12/16 19:22	EPA 3005A	1,6020A	TT

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-03
Client ID: PRW-13
Sample Location: STATEN ISLAND, NY
Matrix: Water
Date Collected: 04/07/16 11:02
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	0.0003	J	mg/l	0.0040	0.0001	2	04/09/16 04:04	04/12/16 11:02	EPA 3005A	1,6020A	TT
Arsenic, Total	0.0431		mg/l	0.0010	0.0002	2	04/09/16 04:04	04/12/16 11:02	EPA 3005A	1,6020A	TT
Barium, Total	0.3362		mg/l	0.0010	0.0001	2	04/09/16 04:04	04/12/16 11:02	EPA 3005A	1,6020A	TT
Beryllium, Total	ND		mg/l	0.0010	0.0003	2	04/09/16 04:04	04/12/16 11:02	EPA 3005A	1,6020A	TT
Cadmium, Total	ND		mg/l	0.0004	0.0001	2	04/09/16 04:04	04/12/16 11:02	EPA 3005A	1,6020A	TT
Chromium, Total	0.0018	J	mg/l	0.0020	0.0005	2	04/09/16 04:04	04/12/16 11:02	EPA 3005A	1,6020A	TT
Copper, Total	0.0009	J	mg/l	0.0020	0.0005	2	04/09/16 04:04	04/12/16 11:02	EPA 3005A	1,6020A	TT
Lead, Total	0.0004	J	mg/l	0.0020	0.0003	2	04/09/16 04:04	04/12/16 11:02	EPA 3005A	1,6020A	TT
Mercury, Total	ND		mg/l	0.00020	0.00006	1	04/12/16 09:45	04/12/16 20:52	EPA 7470A	1,7470A	EA
Nickel, Total	0.0052	J	mg/l	0.0060	0.0002	2	04/09/16 04:04	04/12/16 11:02	EPA 3005A	1,6020A	TT
Selenium, Total	ND		mg/l	0.010	0.002	2	04/09/16 04:04	04/12/16 11:02	EPA 3005A	1,6020A	TT
Silver, Total	0.0004	J	mg/l	0.0008	0.0002	2	04/09/16 04:04	04/12/16 11:02	EPA 3005A	1,6020A	TT
Thallium, Total	ND		mg/l	0.0010	0.0001	2	04/09/16 04:04	04/12/16 11:02	EPA 3005A	1,6020A	TT
Zinc, Total	0.0076	J	mg/l	0.0200	0.0051	2	04/09/16 04:04	04/12/16 11:02	EPA 3005A	1,6020A	TT
Dissolved Metals - Westborough Lab											
Antimony, Dissolved	0.0005	J	mg/l	0.0040	0.0001	2	04/09/16 04:18	04/12/16 19:25	EPA 3005A	1,6020A	TT
Arsenic, Dissolved	0.0401		mg/l	0.0010	0.0002	2	04/09/16 04:18	04/12/16 19:25	EPA 3005A	1,6020A	TT
Barium, Dissolved	0.3343		mg/l	0.0010	0.0001	2	04/09/16 04:18	04/12/16 19:25	EPA 3005A	1,6020A	TT
Beryllium, Dissolved	ND		mg/l	0.0010	0.0003	2	04/09/16 04:18	04/12/16 19:25	EPA 3005A	1,6020A	TT
Cadmium, Dissolved	ND		mg/l	0.0004	0.0001	2	04/09/16 04:18	04/12/16 19:25	EPA 3005A	1,6020A	TT
Chromium, Dissolved	0.0020	J	mg/l	0.0020	0.0005	2	04/09/16 04:18	04/12/16 19:25	EPA 3005A	1,6020A	TT
Copper, Dissolved	0.0014	J	mg/l	0.0020	0.0005	2	04/09/16 04:18	04/12/16 19:25	EPA 3005A	1,6020A	TT
Lead, Dissolved	ND		mg/l	0.0020	0.0003	2	04/09/16 04:18	04/12/16 19:25	EPA 3005A	1,6020A	TT
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	04/12/16 09:45	04/12/16 20:23	EPA 7470A	1,7470A	EA
Nickel, Dissolved	0.0045	J	mg/l	0.0060	0.0002	2	04/09/16 04:18	04/12/16 19:25	EPA 3005A	1,6020A	TT
Selenium, Dissolved	ND		mg/l	0.010	0.002	2	04/09/16 04:18	04/12/16 19:25	EPA 3005A	1,6020A	TT
Silver, Dissolved	ND		mg/l	0.0008	0.0002	2	04/09/16 04:18	04/12/16 19:25	EPA 3005A	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0010	0.0001	2	04/09/16 04:18	04/12/16 19:25	EPA 3005A	1,6020A	TT
Zinc, Dissolved	0.1393		mg/l	0.0200	0.0051	2	04/09/16 04:18	04/12/16 19:25	EPA 3005A	1,6020A	TT

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-04
Client ID: PRW-15
Sample Location: STATEN ISLAND, NY
Matrix: Water
Date Collected: 04/07/16 12:52
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	0.0002	J	mg/l	0.0040	0.0001	2	04/09/16 04:04	04/12/16 11:05	EPA 3005A	1,6020A	TT
Arsenic, Total	0.0109		mg/l	0.0010	0.0002	2	04/09/16 04:04	04/12/16 11:05	EPA 3005A	1,6020A	TT
Barium, Total	0.0750		mg/l	0.0010	0.0001	2	04/09/16 04:04	04/12/16 11:05	EPA 3005A	1,6020A	TT
Beryllium, Total	ND		mg/l	0.0010	0.0003	2	04/09/16 04:04	04/12/16 11:05	EPA 3005A	1,6020A	TT
Cadmium, Total	ND		mg/l	0.0004	0.0001	2	04/09/16 04:04	04/12/16 11:05	EPA 3005A	1,6020A	TT
Chromium, Total	0.0006	J	mg/l	0.0020	0.0005	2	04/09/16 04:04	04/12/16 11:05	EPA 3005A	1,6020A	TT
Copper, Total	0.0010	J	mg/l	0.0020	0.0005	2	04/09/16 04:04	04/12/16 11:05	EPA 3005A	1,6020A	TT
Lead, Total	0.0008	J	mg/l	0.0020	0.0003	2	04/09/16 04:04	04/12/16 11:05	EPA 3005A	1,6020A	TT
Mercury, Total	ND		mg/l	0.00020	0.00006	1	04/12/16 09:45	04/12/16 20:54	EPA 7470A	1,7470A	EA
Nickel, Total	0.0032	J	mg/l	0.0060	0.0002	2	04/09/16 04:04	04/12/16 11:05	EPA 3005A	1,6020A	TT
Selenium, Total	ND		mg/l	0.010	0.002	2	04/09/16 04:04	04/12/16 11:05	EPA 3005A	1,6020A	TT
Silver, Total	0.0002	J	mg/l	0.0008	0.0002	2	04/09/16 04:04	04/12/16 11:05	EPA 3005A	1,6020A	TT
Thallium, Total	ND		mg/l	0.0010	0.0001	2	04/09/16 04:04	04/12/16 11:05	EPA 3005A	1,6020A	TT
Zinc, Total	0.00690	J	mg/l	0.0200	0.0051	2	04/09/16 04:04	04/12/16 11:05	EPA 3005A	1,6020A	TT
Dissolved Metals - Westborough Lab											
Antimony, Dissolved	0.0002	J	mg/l	0.0040	0.0001	2	04/09/16 04:18	04/12/16 19:28	EPA 3005A	1,6020A	TT
Arsenic, Dissolved	0.0073		mg/l	0.0010	0.0002	2	04/09/16 04:18	04/12/16 19:28	EPA 3005A	1,6020A	TT
Barium, Dissolved	0.0451		mg/l	0.0010	0.0001	2	04/09/16 04:18	04/12/16 19:28	EPA 3005A	1,6020A	TT
Beryllium, Dissolved	ND		mg/l	0.0010	0.0003	2	04/09/16 04:18	04/12/16 19:28	EPA 3005A	1,6020A	TT
Cadmium, Dissolved	ND		mg/l	0.0004	0.0001	2	04/09/16 04:18	04/12/16 19:28	EPA 3005A	1,6020A	TT
Chromium, Dissolved	ND		mg/l	0.0020	0.0005	2	04/09/16 04:18	04/12/16 19:28	EPA 3005A	1,6020A	TT
Copper, Dissolved	ND		mg/l	0.0020	0.0005	2	04/09/16 04:18	04/12/16 19:28	EPA 3005A	1,6020A	TT
Lead, Dissolved	ND		mg/l	0.0020	0.0003	2	04/09/16 04:18	04/12/16 19:28	EPA 3005A	1,6020A	TT
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	04/12/16 09:45	04/12/16 20:25	EPA 7470A	1,7470A	EA
Nickel, Dissolved	0.0017	J	mg/l	0.0060	0.0002	2	04/09/16 04:18	04/12/16 19:28	EPA 3005A	1,6020A	TT
Selenium, Dissolved	ND		mg/l	0.010	0.002	2	04/09/16 04:18	04/12/16 19:28	EPA 3005A	1,6020A	TT
Silver, Dissolved	ND		mg/l	0.0008	0.0002	2	04/09/16 04:18	04/12/16 19:28	EPA 3005A	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0010	0.0001	2	04/09/16 04:18	04/12/16 19:28	EPA 3005A	1,6020A	TT
Zinc, Dissolved	ND		mg/l	0.0200	0.0051	2	04/09/16 04:18	04/12/16 19:28	EPA 3005A	1,6020A	TT

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-05
Client ID: PRW-12
Sample Location: STATEN ISLAND, NY
Matrix: Water
Date Collected: 04/07/16 08:46
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	0.0005	J	mg/l	0.0040	0.0001	2	04/09/16 04:04	04/12/16 11:08	EPA 3005A	1,6020A	TT
Arsenic, Total	0.0123		mg/l	0.0010	0.0002	2	04/09/16 04:04	04/12/16 11:08	EPA 3005A	1,6020A	TT
Barium, Total	0.0969		mg/l	0.0010	0.0001	2	04/09/16 04:04	04/12/16 11:08	EPA 3005A	1,6020A	TT
Beryllium, Total	ND		mg/l	0.0010	0.0003	2	04/09/16 04:04	04/12/16 11:08	EPA 3005A	1,6020A	TT
Cadmium, Total	ND		mg/l	0.0004	0.0001	2	04/09/16 04:04	04/12/16 11:08	EPA 3005A	1,6020A	TT
Chromium, Total	0.0017	J	mg/l	0.0020	0.0005	2	04/09/16 04:04	04/12/16 11:08	EPA 3005A	1,6020A	TT
Copper, Total	0.0021		mg/l	0.0020	0.0005	2	04/09/16 04:04	04/12/16 11:08	EPA 3005A	1,6020A	TT
Lead, Total	0.0015	J	mg/l	0.0020	0.0003	2	04/09/16 04:04	04/12/16 11:08	EPA 3005A	1,6020A	TT
Mercury, Total	ND		mg/l	0.00020	0.00006	1	04/12/16 09:45	04/12/16 20:56	EPA 7470A	1,7470A	EA
Nickel, Total	0.0411		mg/l	0.0060	0.0002	2	04/09/16 04:04	04/12/16 11:08	EPA 3005A	1,6020A	TT
Selenium, Total	ND		mg/l	0.010	0.002	2	04/09/16 04:04	04/12/16 11:08	EPA 3005A	1,6020A	TT
Silver, Total	0.0002	J	mg/l	0.0008	0.0002	2	04/09/16 04:04	04/12/16 11:08	EPA 3005A	1,6020A	TT
Thallium, Total	ND		mg/l	0.0010	0.0001	2	04/09/16 04:04	04/12/16 11:08	EPA 3005A	1,6020A	TT
Zinc, Total	0.0203		mg/l	0.0200	0.0051	2	04/09/16 04:04	04/12/16 11:08	EPA 3005A	1,6020A	TT
Dissolved Metals - Westborough Lab											
Antimony, Dissolved	0.0006	J	mg/l	0.0040	0.0001	2	04/09/16 04:18	04/12/16 19:55	EPA 3005A	1,6020A	TT
Arsenic, Dissolved	0.0112		mg/l	0.0010	0.0002	2	04/09/16 04:18	04/12/16 19:55	EPA 3005A	1,6020A	TT
Barium, Dissolved	0.0993		mg/l	0.0010	0.0001	2	04/09/16 04:18	04/12/16 19:55	EPA 3005A	1,6020A	TT
Beryllium, Dissolved	ND		mg/l	0.0010	0.0003	2	04/09/16 04:18	04/12/16 19:55	EPA 3005A	1,6020A	TT
Cadmium, Dissolved	ND		mg/l	0.0004	0.0001	2	04/09/16 04:18	04/12/16 19:55	EPA 3005A	1,6020A	TT
Chromium, Dissolved	ND		mg/l	0.0020	0.0005	2	04/09/16 04:18	04/12/16 19:55	EPA 3005A	1,6020A	TT
Copper, Dissolved	ND		mg/l	0.0020	0.0005	2	04/09/16 04:18	04/12/16 19:55	EPA 3005A	1,6020A	TT
Lead, Dissolved	ND		mg/l	0.0020	0.0003	2	04/09/16 04:18	04/12/16 19:55	EPA 3005A	1,6020A	TT
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	04/12/16 09:45	04/12/16 20:27	EPA 7470A	1,7470A	EA
Nickel, Dissolved	0.0368		mg/l	0.0060	0.0002	2	04/09/16 04:18	04/12/16 19:55	EPA 3005A	1,6020A	TT
Selenium, Dissolved	ND		mg/l	0.010	0.002	2	04/09/16 04:18	04/12/16 19:55	EPA 3005A	1,6020A	TT
Silver, Dissolved	0.0002	J	mg/l	0.0008	0.0002	2	04/09/16 04:18	04/12/16 19:55	EPA 3005A	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0010	0.0001	2	04/09/16 04:18	04/12/16 19:55	EPA 3005A	1,6020A	TT
Zinc, Dissolved	ND		mg/l	0.0200	0.0051	2	04/09/16 04:18	04/12/16 19:55	EPA 3005A	1,6020A	TT

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-06
Client ID: PRW-10
Sample Location: STATEN ISLAND, NY
Matrix: Water
Date Collected: 04/07/16 09:46
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	0.0005	J	mg/l	0.0040	0.0001	2	04/09/16 04:04	04/12/16 11:28	EPA 3005A	1,6020A	TT
Arsenic, Total	0.0126		mg/l	0.0010	0.0002	2	04/09/16 04:04	04/12/16 11:28	EPA 3005A	1,6020A	TT
Barium, Total	0.0254		mg/l	0.0010	0.0001	2	04/09/16 04:04	04/12/16 11:28	EPA 3005A	1,6020A	TT
Beryllium, Total	ND		mg/l	0.0010	0.0003	2	04/09/16 04:04	04/12/16 11:28	EPA 3005A	1,6020A	TT
Cadmium, Total	ND		mg/l	0.0004	0.0001	2	04/09/16 04:04	04/12/16 11:28	EPA 3005A	1,6020A	TT
Chromium, Total	0.0034		mg/l	0.0020	0.0005	2	04/09/16 04:04	04/12/16 11:28	EPA 3005A	1,6020A	TT
Copper, Total	0.0036		mg/l	0.0020	0.0005	2	04/09/16 04:04	04/12/16 11:28	EPA 3005A	1,6020A	TT
Lead, Total	0.0046		mg/l	0.0020	0.0003	2	04/09/16 04:04	04/12/16 11:28	EPA 3005A	1,6020A	TT
Mercury, Total	ND		mg/l	0.00020	0.00006	1	04/12/16 09:45	04/12/16 21:01	EPA 7470A	1,7470A	EA
Nickel, Total	0.0024	J	mg/l	0.0060	0.0002	2	04/09/16 04:04	04/12/16 11:28	EPA 3005A	1,6020A	TT
Selenium, Total	ND		mg/l	0.010	0.002	2	04/09/16 04:04	04/12/16 11:28	EPA 3005A	1,6020A	TT
Silver, Total	ND		mg/l	0.0008	0.0002	2	04/09/16 04:04	04/12/16 11:28	EPA 3005A	1,6020A	TT
Thallium, Total	ND		mg/l	0.0010	0.0001	2	04/09/16 04:04	04/12/16 11:28	EPA 3005A	1,6020A	TT
Zinc, Total	0.0137	J	mg/l	0.0200	0.0051	2	04/09/16 04:04	04/12/16 11:28	EPA 3005A	1,6020A	TT
Dissolved Metals - Westborough Lab											
Antimony, Dissolved	ND		mg/l	0.0040	0.0001	2	04/09/16 04:18	04/12/16 19:58	EPA 3005A	1,6020A	TT
Arsenic, Dissolved	0.0083		mg/l	0.0010	0.0002	2	04/09/16 04:18	04/12/16 19:58	EPA 3005A	1,6020A	TT
Barium, Dissolved	0.0189		mg/l	0.0010	0.0001	2	04/09/16 04:18	04/12/16 19:58	EPA 3005A	1,6020A	TT
Beryllium, Dissolved	ND		mg/l	0.0010	0.0003	2	04/09/16 04:18	04/12/16 19:58	EPA 3005A	1,6020A	TT
Cadmium, Dissolved	ND		mg/l	0.0004	0.0001	2	04/09/16 04:18	04/12/16 19:58	EPA 3005A	1,6020A	TT
Chromium, Dissolved	0.0006	J	mg/l	0.0020	0.0005	2	04/09/16 04:18	04/12/16 19:58	EPA 3005A	1,6020A	TT
Copper, Dissolved	0.0008	J	mg/l	0.0020	0.0005	2	04/09/16 04:18	04/12/16 19:58	EPA 3005A	1,6020A	TT
Lead, Dissolved	ND		mg/l	0.0020	0.0003	2	04/09/16 04:18	04/12/16 19:58	EPA 3005A	1,6020A	TT
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	04/12/16 09:45	04/12/16 20:28	EPA 7470A	1,7470A	EA
Nickel, Dissolved	0.0025	J	mg/l	0.0060	0.0002	2	04/09/16 04:18	04/12/16 19:58	EPA 3005A	1,6020A	TT
Selenium, Dissolved	0.006	J	mg/l	0.010	0.002	2	04/09/16 04:18	04/12/16 19:58	EPA 3005A	1,6020A	TT
Silver, Dissolved	ND		mg/l	0.0008	0.0002	2	04/09/16 04:18	04/12/16 19:58	EPA 3005A	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0010	0.0001	2	04/09/16 04:18	04/12/16 19:58	EPA 3005A	1,6020A	TT
Zinc, Dissolved	0.0088	J	mg/l	0.0200	0.0051	2	04/09/16 04:18	04/12/16 19:58	EPA 3005A	1,6020A	TT

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-07
Client ID: PRW-05
Sample Location: STATEN ISLAND, NY
Matrix: Water
Date Collected: 04/07/16 10:56
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	ND		mg/l	0.0040	0.0001	2	04/09/16 04:04	04/12/16 11:31	EPA 3005A	1,6020A	TT
Arsenic, Total	0.0092		mg/l	0.0010	0.0002	2	04/09/16 04:04	04/12/16 11:31	EPA 3005A	1,6020A	TT
Barium, Total	0.2395		mg/l	0.0010	0.0001	2	04/09/16 04:04	04/12/16 11:31	EPA 3005A	1,6020A	TT
Beryllium, Total	ND		mg/l	0.0010	0.0003	2	04/09/16 04:04	04/12/16 11:31	EPA 3005A	1,6020A	TT
Cadmium, Total	ND		mg/l	0.0004	0.0001	2	04/09/16 04:04	04/12/16 11:31	EPA 3005A	1,6020A	TT
Chromium, Total	0.0011	J	mg/l	0.0020	0.0005	2	04/09/16 04:04	04/12/16 11:31	EPA 3005A	1,6020A	TT
Copper, Total	0.0022		mg/l	0.0020	0.0005	2	04/09/16 04:04	04/12/16 11:31	EPA 3005A	1,6020A	TT
Lead, Total	0.0008	J	mg/l	0.0020	0.0003	2	04/09/16 04:04	04/12/16 11:31	EPA 3005A	1,6020A	TT
Mercury, Total	ND		mg/l	0.00020	0.00006	1	04/12/16 09:45	04/12/16 21:03	EPA 7470A	1,7470A	EA
Nickel, Total	0.0025	J	mg/l	0.0060	0.0002	2	04/09/16 04:04	04/12/16 11:31	EPA 3005A	1,6020A	TT
Selenium, Total	ND		mg/l	0.010	0.002	2	04/09/16 04:04	04/12/16 11:31	EPA 3005A	1,6020A	TT
Silver, Total	ND		mg/l	0.0008	0.0002	2	04/09/16 04:04	04/12/16 11:31	EPA 3005A	1,6020A	TT
Thallium, Total	ND		mg/l	0.0010	0.0001	2	04/09/16 04:04	04/12/16 11:31	EPA 3005A	1,6020A	TT
Zinc, Total	0.0071	J	mg/l	0.0200	0.0051	2	04/09/16 04:04	04/12/16 11:31	EPA 3005A	1,6020A	TT
Dissolved Metals - Westborough Lab											
Antimony, Dissolved	ND		mg/l	0.0040	0.0001	2	04/09/16 04:18	04/12/16 20:01	EPA 3005A	1,6020A	TT
Arsenic, Dissolved	0.0122		mg/l	0.0010	0.0002	2	04/09/16 04:18	04/12/16 20:01	EPA 3005A	1,6020A	TT
Barium, Dissolved	0.2683		mg/l	0.0010	0.0001	2	04/09/16 04:18	04/12/16 20:01	EPA 3005A	1,6020A	TT
Beryllium, Dissolved	ND		mg/l	0.0010	0.0003	2	04/09/16 04:18	04/12/16 20:01	EPA 3005A	1,6020A	TT
Cadmium, Dissolved	ND		mg/l	0.0004	0.0001	2	04/09/16 04:18	04/12/16 20:01	EPA 3005A	1,6020A	TT
Chromium, Dissolved	0.0010	J	mg/l	0.0020	0.0005	2	04/09/16 04:18	04/12/16 20:01	EPA 3005A	1,6020A	TT
Copper, Dissolved	0.0008	J	mg/l	0.0020	0.0005	2	04/09/16 04:18	04/12/16 20:01	EPA 3005A	1,6020A	TT
Lead, Dissolved	ND		mg/l	0.0020	0.0003	2	04/09/16 04:18	04/12/16 20:01	EPA 3005A	1,6020A	TT
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	04/12/16 09:45	04/12/16 20:30	EPA 7470A	1,7470A	EA
Nickel, Dissolved	0.0016	J	mg/l	0.0060	0.0002	2	04/09/16 04:18	04/12/16 20:01	EPA 3005A	1,6020A	TT
Selenium, Dissolved	ND		mg/l	0.010	0.002	2	04/09/16 04:18	04/12/16 20:01	EPA 3005A	1,6020A	TT
Silver, Dissolved	0.0002	J	mg/l	0.0008	0.0002	2	04/09/16 04:18	04/12/16 20:01	EPA 3005A	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0010	0.0001	2	04/09/16 04:18	04/12/16 20:01	EPA 3005A	1,6020A	TT
Zinc, Dissolved	ND		mg/l	0.0200	0.0051	2	04/09/16 04:18	04/12/16 20:01	EPA 3005A	1,6020A	TT

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-08
Client ID: PRW-09
Sample Location: STATEN ISLAND, NY
Matrix: Water
Date Collected: 04/07/16 12:16
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	ND		mg/l	0.0040	0.0001	2	04/09/16 04:04	04/12/16 11:34	EPA 3005A	1,6020A	TT
Arsenic, Total	0.0558		mg/l	0.0010	0.0002	2	04/09/16 04:04	04/12/16 11:34	EPA 3005A	1,6020A	TT
Barium, Total	0.0075		mg/l	0.0010	0.0001	2	04/09/16 04:04	04/12/16 11:34	EPA 3005A	1,6020A	TT
Beryllium, Total	ND		mg/l	0.0010	0.0003	2	04/09/16 04:04	04/12/16 11:34	EPA 3005A	1,6020A	TT
Cadmium, Total	ND		mg/l	0.0004	0.0001	2	04/09/16 04:04	04/12/16 11:34	EPA 3005A	1,6020A	TT
Chromium, Total	0.0009	J	mg/l	0.0020	0.0005	2	04/09/16 04:04	04/12/16 11:34	EPA 3005A	1,6020A	TT
Copper, Total	0.0095		mg/l	0.0020	0.0005	2	04/09/16 04:04	04/12/16 11:34	EPA 3005A	1,6020A	TT
Lead, Total	0.0010	J	mg/l	0.0020	0.0003	2	04/09/16 04:04	04/12/16 11:34	EPA 3005A	1,6020A	TT
Mercury, Total	ND		mg/l	0.00020	0.00006	1	04/12/16 09:45	04/12/16 21:05	EPA 7470A	1,7470A	EA
Nickel, Total	0.00190	J	mg/l	0.0060	0.0002	2	04/09/16 04:04	04/12/16 11:34	EPA 3005A	1,6020A	TT
Selenium, Total	ND		mg/l	0.010	0.002	2	04/09/16 04:04	04/12/16 11:34	EPA 3005A	1,6020A	TT
Silver, Total	ND		mg/l	0.0008	0.0002	2	04/09/16 04:04	04/12/16 11:34	EPA 3005A	1,6020A	TT
Thallium, Total	ND		mg/l	0.0010	0.0001	2	04/09/16 04:04	04/12/16 11:34	EPA 3005A	1,6020A	TT
Zinc, Total	ND		mg/l	0.0200	0.0051	2	04/09/16 04:04	04/12/16 11:34	EPA 3005A	1,6020A	TT
Dissolved Metals - Westborough Lab											
Antimony, Dissolved	ND		mg/l	0.0040	0.0001	2	04/09/16 04:18	04/12/16 20:05	EPA 3005A	1,6020A	TT
Arsenic, Dissolved	0.0478		mg/l	0.0010	0.0002	2	04/09/16 04:18	04/12/16 20:05	EPA 3005A	1,6020A	TT
Barium, Dissolved	0.0019		mg/l	0.0010	0.0001	2	04/09/16 04:18	04/12/16 20:05	EPA 3005A	1,6020A	TT
Beryllium, Dissolved	ND		mg/l	0.0010	0.0003	2	04/09/16 04:18	04/12/16 20:05	EPA 3005A	1,6020A	TT
Cadmium, Dissolved	ND		mg/l	0.0004	0.0001	2	04/09/16 04:18	04/12/16 20:05	EPA 3005A	1,6020A	TT
Chromium, Dissolved	0.0025		mg/l	0.0020	0.0005	2	04/09/16 04:18	04/12/16 20:05	EPA 3005A	1,6020A	TT
Copper, Dissolved	0.0033		mg/l	0.0020	0.0005	2	04/09/16 04:18	04/12/16 20:05	EPA 3005A	1,6020A	TT
Lead, Dissolved	ND		mg/l	0.0020	0.0003	2	04/09/16 04:18	04/12/16 20:05	EPA 3005A	1,6020A	TT
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	04/12/16 09:45	04/12/16 20:32	EPA 7470A	1,7470A	EA
Nickel, Dissolved	0.0040	J	mg/l	0.0060	0.0002	2	04/09/16 04:18	04/12/16 20:05	EPA 3005A	1,6020A	TT
Selenium, Dissolved	ND		mg/l	0.010	0.002	2	04/09/16 04:18	04/12/16 20:05	EPA 3005A	1,6020A	TT
Silver, Dissolved	ND		mg/l	0.0008	0.0002	2	04/09/16 04:18	04/12/16 20:05	EPA 3005A	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0010	0.0001	2	04/09/16 04:18	04/12/16 20:05	EPA 3005A	1,6020A	TT
Zinc, Dissolved	ND		mg/l	0.0200	0.0051	2	04/09/16 04:18	04/12/16 20:05	EPA 3005A	1,6020A	TT

Project Name: PORT IVORY
Project Number: P11955502
Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-09
Client ID: FIELD BLANK
Sample Location: STATEN ISLAND, NY
Matrix: Water
Date Collected: 04/07/16 08:05
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	ND		mg/l	0.0020	0.0001	1	04/09/16 04:04	04/12/16 10:43	EPA 3005A	1,6020A	TT
Arsenic, Total	ND		mg/l	0.0005	0.0001	1	04/09/16 04:04	04/12/16 10:43	EPA 3005A	1,6020A	TT
Barium, Total	0.0001	J	mg/l	0.0005	0.0001	1	04/09/16 04:04	04/12/16 10:43	EPA 3005A	1,6020A	TT
Beryllium, Total	ND		mg/l	0.0005	0.0002	1	04/09/16 04:04	04/12/16 10:43	EPA 3005A	1,6020A	TT
Cadmium, Total	ND		mg/l	0.0002	0.0001	1	04/09/16 04:04	04/12/16 10:43	EPA 3005A	1,6020A	TT
Chromium, Total	0.0005	J	mg/l	0.0010	0.0003	1	04/09/16 04:04	04/12/16 10:43	EPA 3005A	1,6020A	TT
Copper, Total	ND		mg/l	0.0010	0.0003	1	04/09/16 04:04	04/12/16 10:43	EPA 3005A	1,6020A	TT
Lead, Total	ND		mg/l	0.0010	0.0001	1	04/09/16 04:04	04/12/16 10:43	EPA 3005A	1,6020A	TT
Mercury, Total	ND		mg/l	0.00020	0.00006	1	04/12/16 09:45	04/12/16 21:06	EPA 7470A	1,7470A	EA
Nickel, Total	0.0012	J	mg/l	0.0030	0.0001	1	04/09/16 04:04	04/12/16 10:43	EPA 3005A	1,6020A	TT
Selenium, Total	ND		mg/l	0.005	0.001	1	04/09/16 04:04	04/12/16 10:43	EPA 3005A	1,6020A	TT
Silver, Total	0.0001	J	mg/l	0.0004	0.0001	1	04/09/16 04:04	04/12/16 10:43	EPA 3005A	1,6020A	TT
Thallium, Total	ND		mg/l	0.0005	0.0001	1	04/09/16 04:04	04/12/16 10:43	EPA 3005A	1,6020A	TT
Zinc, Total	ND		mg/l	0.0100	0.0026	1	04/09/16 04:04	04/12/16 10:43	EPA 3005A	1,6020A	TT
Dissolved Metals - Westborough Lab											
Antimony, Dissolved	0.0001	J	mg/l	0.0020	0.0001	1	04/09/16 04:18	04/12/16 19:09	EPA 3005A	1,6020A	TT
Arsenic, Dissolved	ND		mg/l	0.0005	0.0001	1	04/09/16 04:18	04/12/16 19:09	EPA 3005A	1,6020A	TT
Barium, Dissolved	0.0002	J	mg/l	0.0005	0.0001	1	04/09/16 04:18	04/12/16 19:09	EPA 3005A	1,6020A	TT
Beryllium, Dissolved	ND		mg/l	0.0005	0.0002	1	04/09/16 04:18	04/12/16 19:09	EPA 3005A	1,6020A	TT
Cadmium, Dissolved	ND		mg/l	0.0002	0.0001	1	04/09/16 04:18	04/12/16 19:09	EPA 3005A	1,6020A	TT
Chromium, Dissolved	0.0022		mg/l	0.0010	0.0003	1	04/09/16 04:18	04/12/16 19:09	EPA 3005A	1,6020A	TT
Copper, Dissolved	ND		mg/l	0.0010	0.0003	1	04/09/16 04:18	04/12/16 19:09	EPA 3005A	1,6020A	TT
Lead, Dissolved	ND		mg/l	0.0010	0.0001	1	04/09/16 04:18	04/12/16 19:09	EPA 3005A	1,6020A	TT
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	04/12/16 09:45	04/12/16 20:34	EPA 7470A	1,7470A	EA
Nickel, Dissolved	0.0018	J	mg/l	0.0030	0.0001	1	04/09/16 04:18	04/12/16 19:09	EPA 3005A	1,6020A	TT
Selenium, Dissolved	ND		mg/l	0.005	0.001	1	04/09/16 04:18	04/12/16 19:09	EPA 3005A	1,6020A	TT
Silver, Dissolved	ND		mg/l	0.0004	0.0001	1	04/09/16 04:18	04/12/16 19:09	EPA 3005A	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0005	0.0001	1	04/09/16 04:18	04/12/16 19:09	EPA 3005A	1,6020A	TT
Zinc, Dissolved	ND		mg/l	0.0100	0.0026	1	04/09/16 04:18	04/12/16 19:09	EPA 3005A	1,6020A	TT

Project Name: PORT IVORY **Lab Number:** L1610205

Project Number: P11955502 **Report Date:** 04/14/16

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Westborough Lab for sample(s): 01-09 Batch: WG881943-1										
Antimony, Dissolved	ND		mg/l	0.0020	0.0001	1	04/09/16 04:18	04/12/16 18:50	1,6020A	TT
Arsenic, Dissolved	ND		mg/l	0.0005	0.0001	1	04/09/16 04:18	04/12/16 18:50	1,6020A	TT
Barium, Dissolved	0.0002	J	mg/l	0.0005	0.0001	1	04/09/16 04:18	04/12/16 18:50	1,6020A	TT
Beryllium, Dissolved	ND		mg/l	0.0005	0.0002	1	04/09/16 04:18	04/12/16 18:50	1,6020A	TT
Cadmium, Dissolved	ND		mg/l	0.0002	0.0001	1	04/09/16 04:18	04/12/16 18:50	1,6020A	TT
Chromium, Dissolved	0.0004	J	mg/l	0.0010	0.0003	1	04/09/16 04:18	04/12/16 18:50	1,6020A	TT
Copper, Dissolved	ND		mg/l	0.0010	0.0003	1	04/09/16 04:18	04/12/16 18:50	1,6020A	TT
Lead, Dissolved	ND		mg/l	0.0010	0.0001	1	04/09/16 04:18	04/12/16 18:50	1,6020A	TT
Nickel, Dissolved	0.0010	J	mg/l	0.0030	0.0001	1	04/09/16 04:18	04/12/16 18:50	1,6020A	TT
Selenium, Dissolved	ND		mg/l	0.005	0.001	1	04/09/16 04:18	04/12/16 18:50	1,6020A	TT
Silver, Dissolved	0.0001	J	mg/l	0.0004	0.0001	1	04/09/16 04:18	04/12/16 18:50	1,6020A	TT
Thallium, Dissolved	ND		mg/l	0.0005	0.0001	1	04/09/16 04:18	04/12/16 18:50	1,6020A	TT
Zinc, Dissolved	ND		mg/l	0.0100	0.0026	1	04/09/16 04:18	04/12/16 18:50	1,6020A	TT

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-09 Batch: WG881945-1										
Antimony, Total	0.0001	J	mg/l	0.0020	0.0001	1	04/09/16 04:04	04/12/16 10:40	1,6020A	TT
Arsenic, Total	ND		mg/l	0.0005	0.0001	1	04/09/16 04:04	04/12/16 10:40	1,6020A	TT
Barium, Total	ND		mg/l	0.0005	0.0001	1	04/09/16 04:04	04/12/16 10:40	1,6020A	TT
Beryllium, Total	ND		mg/l	0.0005	0.0002	1	04/09/16 04:04	04/12/16 10:40	1,6020A	TT
Cadmium, Total	ND		mg/l	0.0002	0.0001	1	04/09/16 04:04	04/12/16 10:40	1,6020A	TT
Chromium, Total	0.0005	J	mg/l	0.0010	0.0003	1	04/09/16 04:04	04/12/16 10:40	1,6020A	TT
Copper, Total	ND		mg/l	0.0010	0.0003	1	04/09/16 04:04	04/12/16 10:40	1,6020A	TT
Lead, Total	ND		mg/l	0.0010	0.0001	1	04/09/16 04:04	04/12/16 10:40	1,6020A	TT
Nickel, Total	0.0008	J	mg/l	0.0030	0.0001	1	04/09/16 04:04	04/12/16 10:40	1,6020A	TT
Selenium, Total	ND		mg/l	0.005	0.001	1	04/09/16 04:04	04/12/16 10:40	1,6020A	TT
Silver, Total	0.0001	J	mg/l	0.0004	0.0001	1	04/09/16 04:04	04/12/16 10:40	1,6020A	TT
Thallium, Total	ND		mg/l	0.0005	0.0001	1	04/09/16 04:04	04/12/16 10:40	1,6020A	TT
Zinc, Total	ND		mg/l	0.0100	0.0026	1	04/09/16 04:04	04/12/16 10:40	1,6020A	TT

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

Method Blank Analysis
Batch Quality Control

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Westborough Lab for sample(s): 01-09 Batch: WG882699-1										
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	04/12/16 09:45	04/12/16 20:05	1,7470A	EA

Prep Information

Digestion Method: EPA 7470A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-09 Batch: WG882709-1										
Mercury, Total	ND		mg/l	0.00020	0.00006	1	04/12/16 09:45	04/12/16 20:41	1,7470A	EA

Prep Information

Digestion Method: EPA 7470A

Lab Control Sample Analysis

Batch Quality Control

Project Name: PORT IVORY

Project Number: P11955502

Lab Number: L1610205

Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Dissolved Metals - Westborough Lab Associated sample(s): 01-09 Batch: WG881943-2								
Antimony, Dissolved	101		-		80-120	-		
Arsenic, Dissolved	107		-		80-120	-		
Barium, Dissolved	101		-		80-120	-		
Beryllium, Dissolved	98		-		80-120	-		
Cadmium, Dissolved	105		-		80-120	-		
Chromium, Dissolved	102		-		80-120	-		
Copper, Dissolved	98		-		80-120	-		
Lead, Dissolved	100		-		80-120	-		
Nickel, Dissolved	102		-		80-120	-		
Selenium, Dissolved	108		-		80-120	-		
Silver, Dissolved	86		-		80-120	-		
Thallium, Dissolved	99		-		80-120	-		
Zinc, Dissolved	101		-		80-120	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: PORT IVORY

Project Number: P11955502

Lab Number: L1610205

Report Date: 04/14/16

Parameter	LCS %Recovery		LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-09 Batch: WG881945-2						
Antimony, Total	105		-	80-120	-	
Arsenic, Total	106		-	80-120	-	
Barium, Total	108		-	80-120	-	
Beryllium, Total	94		-	80-120	-	
Cadmium, Total	110		-	80-120	-	
Chromium, Total	106		-	80-120	-	
Copper, Total	97		-	80-120	-	
Lead, Total	108		-	80-120	-	
Nickel, Total	108		-	80-120	-	
Selenium, Total	96		-	80-120	-	
Silver, Total	83		-	80-120	-	
Thallium, Total	104		-	80-120	-	
Zinc, Total	101		-	80-120	-	
Dissolved Metals - Westborough Lab Associated sample(s): 01-09 Batch: WG882699-2						
Mercury, Dissolved	**125**	Q	-	80-120	-	
Total Metals - Westborough Lab Associated sample(s): 01-09 Batch: WG882709-2						
Mercury, Total	**123**	Q	-	80-120	-	

Matrix Spike Analysis
Batch Quality Control

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Dissolved Metals - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG881943-4 QC Sample: L1610205-01 Client ID: PRW-08												
Antimony, Dissolved	0.0011J	0.5	0.5277	106		-	-		75-125	-		20
Arsenic, Dissolved	0.0282	0.12	0.1609	110		-	-		75-125	-		20
Barium, Dissolved	0.0075	2	2.118	106		-	-		75-125	-		20
Beryllium, Dissolved	ND	0.05	0.0492	98		-	-		75-125	-		20
Cadmium, Dissolved	ND	0.051	0.0555	109		-	-		75-125	-		20
Chromium, Dissolved	0.0006J	0.2	0.2016	101		-	-		75-125	-		20
Copper, Dissolved	0.0007J	0.25	0.2527	101		-	-		75-125	-		20
Lead, Dissolved	ND	0.51	0.5249	103		-	-		75-125	-		20
Nickel, Dissolved	0.0010J	0.5	0.5008	100		-	-		75-125	-		20
Selenium, Dissolved	ND	0.12	0.126	105		-	-		75-125	-		20
Silver, Dissolved	0.0002J	0.05	0.0347	**69**	Q	-	-		75-125	-		20
Thallium, Dissolved	ND	0.12	0.1202	100		-	-		75-125	-		20
Zinc, Dissolved	ND	0.5	0.5304	106		-	-		75-125	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG881945-4 QC Sample: L1610205-01 Client ID: PRW-08									
Antimony, Total	0.0011J	0.5	0.4988	100	-	-	75-125	-	20
Arsenic, Total	0.0377	0.12	0.1741	114	-	-	75-125	-	20
Barium, Total	0.0074	2	2.141	107	-	-	75-125	-	20
Beryllium, Total	ND	0.05	0.0488	98	-	-	75-125	-	20
Cadmium, Total	ND	0.051	0.0531	104	-	-	75-125	-	20
Chromium, Total	0.001J	0.2	0.2075	104	-	-	75-125	-	20
Copper, Total	0.0016J	0.25	0.2680	107	-	-	75-125	-	20
Lead, Total	0.0008J	0.51	0.5503	108	-	-	75-125	-	20
Nickel, Total	0.0023J	0.5	0.5405	108	-	-	75-125	-	20
Selenium, Total	ND	0.12	0.124	103	-	-	75-125	-	20
Silver, Total	0.0002J	0.05	0.0381	76	-	-	75-125	-	20
Thallium, Total	ND	0.12	0.1254	104	-	-	75-125	-	20
Zinc, Total	0.0066J	0.5	0.5124	102	-	-	75-125	-	20
Dissolved Metals - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG882699-4 QC Sample: L1610035-09 Client ID: MS Sample									
Mercury, Dissolved	ND	0.005	0.00586	117	-	-	75-125	-	20
Total Metals - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG882709-4 QC Sample: L1610205-01 Client ID: PRW-08									
Mercury, Total	ND	0.005	0.00570	114	-	-	75-125	-	20

Lab Duplicate Analysis
Batch Quality Control

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Dissolved Metals - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG881943-3 QC Sample: L1610205-01 Client ID: PRW-08						
Antimony, Dissolved	0.0011J	0.0007J	mg/l	NC		20
Arsenic, Dissolved	0.0282	0.0301	mg/l	6		20
Barium, Dissolved	0.0075	0.0071	mg/l	6		20
Beryllium, Dissolved	ND	ND	mg/l	NC		20
Cadmium, Dissolved	ND	ND	mg/l	NC		20
Chromium, Dissolved	0.0006J	0.0019J	mg/l	NC		20
Copper, Dissolved	0.0007J	0.0010J	mg/l	NC		20
Lead, Dissolved	ND	ND	mg/l	NC		20
Nickel, Dissolved	0.0010J	0.0051J	mg/l	NC		20
Selenium, Dissolved	ND	ND	mg/l	NC		20
Silver, Dissolved	0.0002J	ND	mg/l	NC		20
Thallium, Dissolved	ND	ND	mg/l	NC		20
Zinc, Dissolved	ND	ND	mg/l	NC		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

Parameter	Native Sample	Duplicate Sample	Units	RPD		RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG881945-3 QC Sample: L1610205-01 Client ID: PRW-08						
Antimony, Total	0.0011J	0.0017J	mg/l	NC		20
Arsenic, Total	0.0377	0.0427	mg/l	13		20
Barium, Total	0.0074	0.0093	mg/l	**23**	Q	20
Beryllium, Total	ND	ND	mg/l	NC		20
Cadmium, Total	ND	ND	mg/l	NC		20
Chromium, Total	0.001J	0.0008J	mg/l	NC		20
Copper, Total	0.0016J	0.0018J	mg/l	NC		20
Lead, Total	0.0008J	0.0009J	mg/l	NC		20
Nickel, Total	0.0023J	0.0033J	mg/l	NC		20
Selenium, Total	ND	ND	mg/l	NC		20
Silver, Total	0.0002J	0.0002J	mg/l	NC		20
Thallium, Total	ND	ND	mg/l	NC		20
Zinc, Total	0.0066J	0.0065J	mg/l	NC		20
Dissolved Metals - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG882699-3 QC Sample: L1610035-09 Client ID: DUP Sample						
Mercury, Dissolved	ND	ND	mg/l	NC		20
Total Metals - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG882709-3 QC Sample: L1610205-01 Client ID: PRW-08						
Mercury, Total	ND	ND	mg/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-01
Client ID: PRW-08
Sample Location: STATEN ISLAND, NY
Matrix: Water

Date Collected: 04/07/16 08:32
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.001	J	mg/l	0.005	0.001	1	04/09/16 11:00	04/11/16 14:20	1,9010C/9012B	JO

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-02
Client ID: PRW-14
Sample Location: STATEN ISLAND, NY
Matrix: Water

Date Collected: 04/07/16 09:47
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.009		mg/l	0.005	0.001	1	04/09/16 11:00	04/11/16 14:20	1,9010C/9012B	JO

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-03
Client ID: PRW-13
Sample Location: STATEN ISLAND, NY
Matrix: Water

Date Collected: 04/07/16 11:02
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.006		mg/l	0.005	0.001	1	04/09/16 11:00	04/11/16 14:21	1,9010C/9012B	JO

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-04
Client ID: PRW-15
Sample Location: STATEN ISLAND, NY
Matrix: Water

Date Collected: 04/07/16 12:52
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.111		mg/l	0.005	0.001	1	04/09/16 11:00	04/11/16 14:22	1,9010C/9012B	JO

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-05
Client ID: PRW-12
Sample Location: STATEN ISLAND, NY
Matrix: Water

Date Collected: 04/07/16 08:46
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.001	J	mg/l	0.005	0.001	1	04/09/16 11:00	04/11/16 14:23	1,9010C/9012B	JO

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-06
Client ID: PRW-10
Sample Location: STATEN ISLAND, NY
Matrix: Water

Date Collected: 04/07/16 09:46
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND		mg/l	0.005	0.001	1	04/09/16 11:00	04/11/16 14:23	1,9010C/9012B	JO

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-07
Client ID: PRW-05
Sample Location: STATEN ISLAND, NY
Matrix: Water

Date Collected: 04/07/16 10:56
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND		mg/l	0.005	0.001	1	04/09/16 11:00	04/11/16 14:26	1,9010C/9012B	JO

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-08
Client ID: PRW-09
Sample Location: STATEN ISLAND, NY
Matrix: Water

Date Collected: 04/07/16 12:16
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND		mg/l	0.005	0.001	1	04/09/16 11:00	04/11/16 14:26	1,9010C/9012B	JO

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID: L1610205-09
Client ID: FIELD BLANK
Sample Location: STATEN ISLAND, NY
Matrix: Water

Date Collected: 04/07/16 08:05
Date Received: 04/07/16
Field Prep: Field Filtered (Dissolved Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.001	J	mg/l	0.005	0.001	1	04/09/16 11:00	04/11/16 14:29	1,9010C/9012B	JO

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-09 Batch: WG882023-1										
Cyanide, Total	ND		mg/l	0.005	0.001	1	04/09/16 11:00	04/11/16 14:16	1,9010C/9012B	JO

Lab Control Sample Analysis

Batch Quality Control

Project Name: PORT IVORY

Project Number: P11955502

Lab Number: L1610205

Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-09 Batch: WG882023-2 WG882023-3								
Cyanide, Total	95		97		85-115	2		20

Matrix Spike Analysis
Batch Quality Control

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG882023-4 WG882023-5 QC Sample: L1610205-08 Client ID: PRW-09												
Cyanide, Total	ND	0.2	0.204	102		0.209	104		80-120	2		20

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information Custody Seal

Cooler	
A	Absent
D	Absent
B	Absent
C	Absent
E	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1610205-01A	Vial HCl preserved	D	N/A	4.2	Y	Absent	NYTCL-8260(14)
L1610205-01B	Vial HCl preserved	D	N/A	4.2	Y	Absent	NYTCL-8260(14)
L1610205-01C	Vial HCl preserved	D	N/A	4.2	Y	Absent	NYTCL-8260(14)
L1610205-01D	Plastic 500ml HNO3 preserved	D	<2	4.2	Y	Absent	BA-6020T(180),SE-6020T(180),TL-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180),HG-T(28)
L1610205-01E	Plastic 500ml HNO3 preserved	D	<2	4.2	Y	Absent	CU-6020S(180),SE-6020S(180),BE-6020S(180),ZN-6020S(180),CR-6020S(180),BA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),CD-6020S(180),HG-S(28)
L1610205-01F	Plastic 250ml NaOH preserved	D	>12	4.2	Y	Absent	TCN-9010(14)
L1610205-01G	Amber 500ml unpreserved	D	7	4.2	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610205-01H	Amber 500ml unpreserved	D	7	4.2	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610205-01I	Amber 1000ml unpreserved	D	7	4.2	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610205-01J	Amber 1000ml unpreserved	D	7	4.2	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610205-01K	Amber 1000ml unpreserved	D	7	4.2	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610205-01L	Amber 1000ml unpreserved	D	7	4.2	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610205-02A	Vial HCl preserved	D	N/A	4.2	Y	Absent	NYTCL-8260(14)
L1610205-02B	Vial HCl preserved	D	N/A	4.2	Y	Absent	NYTCL-8260(14)
L1610205-02C	Vial HCl preserved	D	N/A	4.2	Y	Absent	NYTCL-8260(14)

*Values in parentheses indicate holding time in days

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1610205-02D	Plastic 500ml HNO3 preserved	D	<2	4.2	Y	Absent	BA-6020T(180),SE-6020T(180),TL-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180),HG-T(28)
L1610205-02E	Plastic 500ml HNO3 preserved	D	<2	4.2	Y	Absent	CU-6020S(180),SE-6020S(180),BE-6020S(180),ZN-6020S(180),CR-6020S(180),BA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),CD-6020S(180),HG-S(28)
L1610205-02F	Plastic 250ml NaOH preserved	D	>12	4.2	Y	Absent	TCN-9010(14)
L1610205-02G	Amber 500ml unpreserved	D	7	4.2	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610205-02H	Amber 500ml unpreserved	D	7	4.2	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610205-02I	Amber 1000ml unpreserved	D	7	4.2	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610205-02J	Amber 1000ml unpreserved	D	7	4.2	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610205-02K	Amber 1000ml unpreserved	D	7	4.2	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610205-02L	Amber 1000ml unpreserved	D	7	4.2	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610205-03A	Vial HCl preserved	E	N/A	2.1	Y	Absent	NYTCL-8260(14)
L1610205-03B	Vial HCl preserved	E	N/A	2.1	Y	Absent	NYTCL-8260(14)
L1610205-03C	Vial HCl preserved	E	N/A	2.1	Y	Absent	NYTCL-8260(14)
L1610205-03D	Plastic 500ml HNO3 preserved	E	<2	2.1	Y	Absent	BA-6020T(180),SE-6020T(180),TL-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180),HG-T(28)
L1610205-03E	Plastic 500ml HNO3 preserved	E	<2	2.1	Y	Absent	CU-6020S(180),SE-6020S(180),BE-6020S(180),ZN-6020S(180),CR-6020S(180),BA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),CD-6020S(180),HG-S(28)
L1610205-03F	Plastic 250ml NaOH preserved	E	>12	2.1	Y	Absent	TCN-9010(14)
L1610205-03G	Amber 500ml unpreserved	E	7	2.1	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610205-03H	Amber 500ml unpreserved	E	7	2.1	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610205-03I	Amber 1000ml unpreserved	E	7	2.1	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610205-03J	Amber 1000ml unpreserved	E	7	2.1	Y	Absent	L-EXT-8082(7),HOLD-8082()

*Values in parentheses indicate holding time in days

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1610205-03K	Amber 1000ml unpreserved	E	7	2.1	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610205-03L	Amber 1000ml unpreserved	E	7	2.1	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610205-04A	Vial HCl preserved	E	N/A	2.1	Y	Absent	NYTCL-8260(14)
L1610205-04B	Vial HCl preserved	E	N/A	2.1	Y	Absent	NYTCL-8260(14)
L1610205-04C	Vial HCl preserved	E	N/A	2.1	Y	Absent	NYTCL-8260(14)
L1610205-04D	Plastic 500ml HNO3 preserved	E	<2	2.1	Y	Absent	BA-6020T(180),SE-6020T(180),TL-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180),HG-T(28)
L1610205-04E	Plastic 500ml HNO3 preserved	E	<2	2.1	Y	Absent	CU-6020S(180),SE-6020S(180),BE-6020S(180),ZN-6020S(180),CR-6020S(180),BA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),CD-6020S(180),HG-S(28)
L1610205-04F	Plastic 250ml NaOH preserved	E	>12	2.1	Y	Absent	TCN-9010(14)
L1610205-04G	Amber 500ml unpreserved	E	7	2.1	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610205-04H	Amber 500ml unpreserved	E	7	2.1	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610205-04I	Amber 1000ml unpreserved	E	7	2.1	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610205-04J	Amber 1000ml unpreserved	E	7	2.1	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610205-04K	Amber 1000ml unpreserved	E	7	2.1	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610205-04L	Amber 1000ml unpreserved	E	7	2.1	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610205-05A	Vial HCl preserved	C	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1610205-05B	Vial HCl preserved	C	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1610205-05C	Vial HCl preserved	C	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1610205-05D	Plastic 500ml HNO3 preserved	C	<2	3.7	Y	Absent	BA-6020T(180),SE-6020T(180),TL-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180),HG-T(28)
L1610205-05E	Plastic 500ml HNO3 preserved	C	<2	3.7	Y	Absent	CU-6020S(180),SE-6020S(180),BE-6020S(180),ZN-6020S(180),CR-6020S(180),BA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),CD-6020S(180),HG-S(28)

*Values in parentheses indicate holding time in days

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1610205-05F	Plastic 250ml NaOH preserved	C	>12	3.7	Y	Absent	TCN-9010(14)
L1610205-05G	Amber 500ml unpreserved	C	7	3.7	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610205-05H	Amber 500ml unpreserved	C	7	3.7	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610205-05I	Amber 1000ml unpreserved	C	7	3.7	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610205-05J	Amber 1000ml unpreserved	C	7	3.7	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610205-05K	Amber 1000ml unpreserved	C	7	3.7	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610205-05L	Amber 1000ml unpreserved	C	7	3.7	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610205-06A	Vial HCl preserved	C	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1610205-06B	Vial HCl preserved	C	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1610205-06C	Vial HCl preserved	C	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1610205-06D	Plastic 500ml HNO3 preserved	C	<2	3.7	Y	Absent	BA-6020T(180),SE-6020T(180),TL-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180),HG-T(28)
L1610205-06E	Plastic 500ml HNO3 preserved	C	<2	3.7	Y	Absent	CU-6020S(180),SE-6020S(180),BE-6020S(180),ZN-6020S(180),CR-6020S(180),BA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),CD-6020S(180),HG-S(28)
L1610205-06F	Plastic 250ml NaOH preserved	C	>12	3.7	Y	Absent	TCN-9010(14)
L1610205-06G	Amber 500ml unpreserved	C	7	3.7	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610205-06H	Amber 500ml unpreserved	C	7	3.7	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610205-06I	Amber 1000ml unpreserved	C	7	3.7	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610205-06J	Amber 1000ml unpreserved	C	7	3.7	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610205-06K	Amber 1000ml unpreserved	C	7	3.7	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610205-06L	Amber 1000ml unpreserved	C	7	3.7	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610205-07A	Vial HCl preserved	B	N/A	3.3	Y	Absent	NYTCL-8260(14)
L1610205-07B	Vial HCl preserved	B	N/A	3.3	Y	Absent	NYTCL-8260(14)
L1610205-07C	Vial HCl preserved	B	N/A	3.3	Y	Absent	NYTCL-8260(14)
L1610205-07D	Plastic 500ml HNO3 preserved	B	<2	3.3	Y	Absent	BA-6020T(180),SE-6020T(180),TL-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180),HG-T(28)

*Values in parentheses indicate holding time in days

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1610205-07E	Plastic 500ml HNO3 preserved	B	<2	3.3	Y	Absent	CU-6020S(180),SE-6020S(180),BE-6020S(180),ZN-6020S(180),CR-6020S(180),BA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),CD-6020S(180),HG-S(28)
L1610205-07F	Plastic 250ml NaOH preserved	B	>12	3.3	Y	Absent	TCN-9010(14)
L1610205-07G	Amber 500ml unpreserved	B	7	3.3	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610205-07H	Amber 500ml unpreserved	B	7	3.3	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610205-07I	Amber 1000ml unpreserved	B	7	3.3	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610205-07J	Amber 1000ml unpreserved	B	7	3.3	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610205-07K	Amber 1000ml unpreserved	B	7	3.3	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610205-07L	Amber 1000ml unpreserved	B	7	3.3	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610205-08A	Vial HCl preserved	B	N/A	3.3	Y	Absent	NYTCL-8260(14)
L1610205-08B	Vial HCl preserved	B	N/A	3.3	Y	Absent	NYTCL-8260(14)
L1610205-08C	Vial HCl preserved	B	N/A	3.3	Y	Absent	NYTCL-8260(14)
L1610205-08D	Plastic 500ml HNO3 preserved	B	<2	3.3	Y	Absent	BA-6020T(180),SE-6020T(180),TL-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180),HG-T(28)
L1610205-08E	Plastic 500ml HNO3 preserved	B	<2	3.3	Y	Absent	CU-6020S(180),SE-6020S(180),BE-6020S(180),ZN-6020S(180),CR-6020S(180),BA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),CD-6020S(180),HG-S(28)
L1610205-08F	Plastic 250ml NaOH preserved	B	>12	3.3	Y	Absent	TCN-9010(14)
L1610205-08G	Amber 500ml unpreserved	B	7	3.3	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610205-08H	Amber 500ml unpreserved	B	7	3.3	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610205-08I	Amber 1000ml unpreserved	B	7	3.3	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610205-08J	Amber 1000ml unpreserved	B	7	3.3	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610205-08K	Amber 1000ml unpreserved	B	7	3.3	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610205-08L	Amber 1000ml unpreserved	B	7	3.3	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610205-09A	Vial HCl preserved	A	N/A	4.9	Y	Absent	NYTCL-8260(14)
L1610205-09B	Vial HCl preserved	A	N/A	4.9	Y	Absent	NYTCL-8260(14)
L1610205-09C	Vial HCl preserved	A	N/A	4.9	Y	Absent	NYTCL-8260(14)

*Values in parentheses indicate holding time in days

Project Name: PORT IVORY
Project Number: P11955502

Lab Number: L1610205
Report Date: 04/14/16

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1610205-09D	Plastic 500ml HNO3 preserved	A	<2	4.9	Y	Absent	BA-6020T(180),SE-6020T(180),TL-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180),HG-T(28)
L1610205-09E	Plastic 500ml HNO3 preserved	A	<2	4.9	Y	Absent	CU-6020S(180),SE-6020S(180),BE-6020S(180),ZN-6020S(180),CR-6020S(180),BA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),CD-6020S(180),HG-S(28)
L1610205-09F	Plastic 250ml NaOH preserved	A	>12	4.9	Y	Absent	TCN-9010(14)
L1610205-09G	Amber 500ml unpreserved	A	7	4.9	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610205-09H	Amber 500ml unpreserved	A	7	4.9	Y	Absent	HOLD-8081(7),L-EXT-8081(7)
L1610205-09I	Amber 1000ml unpreserved	A	7	4.9	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610205-09J	Amber 1000ml unpreserved	A	7	4.9	Y	Absent	L-EXT-8082(7),HOLD-8082()
L1610205-09K	Amber 1000ml unpreserved	A	7	4.9	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610205-09L	Amber 1000ml unpreserved	A	7	4.9	Y	Absent	NYTCL-8270(7),NYTCL-8270-SIM(7)
L1610205-10A	Vial HCl preserved	E	N/A	2.1	Y	Absent	NYTCL-8260(14)
L1610205-10B	Vial HCl preserved	E	N/A	2.1	Y	Absent	NYTCL-8260(14)

*Values in parentheses indicate holding time in days

Project Name:	PORT IVORY	**Lab Number:**	L1610205
Project Number:	P11955502	**Report Date:**	04/14/16

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

Report Format: DU Report with 'J' Qualifiers

Project Name:	PORT IVORY	**Lab Number:**	L1610205
Project Number:	P11955502	**Report Date:**	04/14/16

Data Qualifiers

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	PORT IVORY	**Lab Number:**	L1610205
Project Number:	P11955502	**Report Date:**	04/14/16

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene
EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene
EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.
EPA 1010A: NPW: Ignitability
EPA 6010C: NPW: Strontium; SCM: Strontium
EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation
EPA 9038: NPW: Sulfate
EPA 9050A: NPW: Specific Conductance
EPA 9056: NPW: Chloride, Nitrate, Sulfate
EPA 9065: NPW: Phenols
EPA 9251: NPW: Chloride
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
EPA 8270D: NPW: Biphenyl; SCM: Biphenyl, Caprolactam
EPA 8270D-SIM Isotope Dilution: SCM: 1,4-Dioxane
SM 2540D: TSS
SM2540G: SCM: Percent Solids
EPA 1631E: SCM: Mercury
EPA 7474: SCM: Mercury
EPA 8081B: NPW and SCM: Mirex, Hexachlorobenzene.
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA 8270-SIM: NPW and SCM: Alkylated PAHs.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.
Biological Tissue Matrix: ***8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:*** Lead***; 8270D:*** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F,**
EPA 353.2: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

ALPHA ANALYTICAL
Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

NEW YORK CHAIN OF CUSTODY

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page: 1 of 1

Date Rec'd in Lab: 4/7/16

ALPHA Job #: L1610205

Client Information
Client: Port Authority of NY & NJ
Address: Four World Trade Center
150 Greenwich Street - 20th Floor
New York, New York 10007
Phone: 212-435-6108
Email: vcarley@panynj.gov

Project Information
Project Name: Port Ivory
Project Location: Staten Island, NY
Charge Code: P11955502
(Use Project name as Project #) ☐
Project Manager: Victoria Carley
ALPHAQuote #:

Turn-Around Time
Standard ☐ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☐ Same as Client Info
PO #

Site Information
Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:
Hold PCB and Pesticides

ANALYSIS

Sample Filtration
☑ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PPVOC	PP SVOC	PP Metals (total)	PP Metals (dissolved)	Pesticides	PCB	Total Cyanide		Sample Specific Comments	Total Bottl
1610205-01	PRW-08	4/7/16	832	GW	MS	X	X	X	X	X	X	X			12
-02	PRW-14	4/7/16	947	GW	MS	X	X	X	X	X	X	X			12
-03	PRW-13	4/7/16	1102	GW	MS	X	X	X	X	X	X	X		Foamy Water Couldn't Remove All Bubbles	12
-04	PRW-15	4/7/16	1252	GW	MS	X	X	X	X	X	X	X			12
-05	PRW-12	4/7/16	846	GW	RD	X	X	X	X	X	X	X			12
-06	PRW-10	4/7/16	946	GW	RD	X	X	X	X	X	X	X			12
-07	PRW-05	4/7/16	1056	GW	RD	X	X	X	X	X	X	X			12
-08	PRW-09	4/7/16	1216	GW	RD	X	X	X	X	X	X	X			12
-09	Field Blank	4/7/16	805	GW	KS	X	X	X	X	X	X	X			12
-10	Trip Blank	4/7/16	—	AQ	LAB	X									2

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type	V	A	P	P	A	A	P	
Preservative	B	A	C	C	A	A	E	

Relinquished By:	Date/Time	Received By:	Date/Time
	4/7/16 1325		4-7-16 1325
	4-7-16 1810		4-7-16 1810
	4/7/16 2240		4/7/16 2240

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.

Form No: 01-14 (rev. 30-Sept-2013)

FORMS

Enclosure 2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. **V00615**

Site Name Port Ivory Site (Former P & G) Site 1

Site Address: 40 Western Avenue Zip Code: 10303
City/Town: Staten Island
County: Richmond
Site Acreage: ~~13.9~~ 14.95

Reporting Period: ~~May 20, 2014 to January 22, 2015~~

JANUARY 23, 2016 THROUGH JANUARY 22, 2017

	YES	NO
1. Is the information above correct?	☐	☒
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☒
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☒
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☒
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	☒

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	☒	☐
7. Are all ICs/ECs in place and functioning as designed?	☒	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

SITE NO. V00615

Box 3

Description of Institutional Controls

Parcel	Owner	Institutional Control
1400-1 (a portion of)	Port Authority of New York and New Jersey	Ground Water Use Restriction

The IC restricts disturbance of the cover and limits the use of groundwater at the site in perpetuity. To ensure that the EC and IC remain protective of human health and the environment, periodic groundwater and surface water monitoring and periodic inspections of the EC will be conducted. The periodic monitoring and inspections will continue until the NYSDEC notifies the Port Authority in writing that periodic monitoring is no longer required. Additionally, the SMP requires that the Port Authority take certain actions if the EC is disturbed during site improvement activities.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
1400-1 (a portion of)	Cover System

The EC consists of at least one foot of crushed stone, concrete, or asphalt and covers the entire site.

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
☒	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☒	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. V00674

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I, Robert Pruno (print name) at 4 World Trade Center, NY, NY 10007 (print business address)

am certifying as owner representative (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

3/7/17
Date

IC/EC CERTIFICATIONS

Box 7

Qualified Environmental Professional Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I LINDSAY METCALF OHARA at TRC ENGINEERS INC. 1430 Broadway New York, NY
print name print business address

am certifying as a Qualified Environmental Professional for the Owner
(Owner or Remedial Party)

CERTIFIED HAZARDOUS MATERIALS MANAGER
LINDSAY ANN METCALF
16749
CHMM

Lindsay Metcalf OHara
Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

3/8/17
Date