

February 11, 2010

Engineering Department

Thomas Gibbons, Project Manager NY State Dept. of Environmental Conservation Division of Environmental Remediation 625 Broadway Albany, NY 12233

RE: Site 2 Focused Supplemental Remedial Investigation Report

Howland Hook Marine Terminal – Port Ivory Facility (40 Western Avenue) Staten Island, New York 10303

Dear Mr. Gibbons:

Please find enclosed two copies of the final Focused Supplemental Remedial Investigation Report (FSRIR) for Site 2 (VCP ID# V00674-2) at the above referenced facility. The FSRIR is submitted pursuant to the Voluntary Cleanup Program (VCP) Agreement between the NYSDEC and The Port Authority of New York and New Jersey.

If you have any questions or comments, please feel free to contact Ed Aldrich at 973-565-7553.

Very truly yours,

The Port Authority of New York and New Jersey

Robert P. Pruno, P.E.

Chief - Environmental Engineer

T 973.565.7620 F 973.565.7649

rpruno@panynj.gov

cc:

B. Callaghan (NYSDOH)

E. Aldrich (PANYNJ)

G. Clark (HMM)

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The Port Authority of New York and New Jersey

Focused Supplemental Remedial Investigation Report
Site 2 (VCP Site 00674-2)
HHMT - Port Ivory Facility
January 2010

40 Western Avenue, Staten Island, New York



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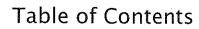




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1.0 Executive Summary

This report summarizes the results of the Focused Supplemental Remedial Investigation (FSRI) conducted at Site 2 in 2007. The FSRI was necessary to investigate three open Areas of Concern (AOCs) known as AOC-Western Area, AOC-Area 2A Southeast, and AOC-TE Pipeline. The overall goal of the FSRI was to determine whether additional investigation or remediation was warranted at these open AOCs. This report supplements the information documented in the *Comprehensive Remedial Investigation Report* (CRIR) dated April 2008, which has been submitted to the New York State Department of Environmental Conservation (NYSDEC).

Soil sampling was necessary at AOC-Western Area to document the effectiveness of soil removal activities completed by The Port Authority of New York and New Jersey (The Port Authority). At AOC-Area 2A Southeast, light non-aqueous phase liquid (LNAPL)-impacted soil had not been completely delineated. In AOC-TE Pipeline, the environmental quality of soil and groundwater had not been evaluated along the International Mantex Tank Terminals (IMTT) and Texas Eastern pipelines.

During the FSRI, LNAPL-impacted soil was encountered at only AOC-Area 2A Southeast. The LNAPL was delineated to a minimum area of approximately 4,000 square feet. Delineation of LNAPL-impacted soil to the east of AOC-Area 2A Southeast was completed at AOC-Western Area. To the west, sediment sampling in Bridge Creek and field observations of soil quality along the bank of Bridge Creek, demonstrate delineation of LNAPL impacts. The north and south limits of LNAPL-soil were defined at soil borings. LNAPL was not encountered in any FSRI monitoring well installed at Site 2. Therefore, mobile LNAPL is not anticipated to be present at AOC-Area 2A Southeast.

Soil impacts at AOC-Western Area and AOC-TE Pipeline consist primarily of polycyclic aromatic hydrocarbon (PAH) compounds believed to be attributable to fill materials used to raise the site grade by Proctor and Gamble (P&G). These soil impacts are similar to concentrations detected at other portions of the HHMT-Port Ivory Facility. Groundwater is impacted with PAH compounds, which has not impacted surface water in Bridge Creek.

The FSRI has concluded that no additional evaluation or remediation is warranted beyond the establishment of institutional/engineering controls and a Deed Restriction as specified in the Site 2 Remedial Action Work Plan (RAWP). The environmental quality of groundwater, surface water, and potentially sediment as well as inspection of the impervious cover will be monitored after redevelopment.

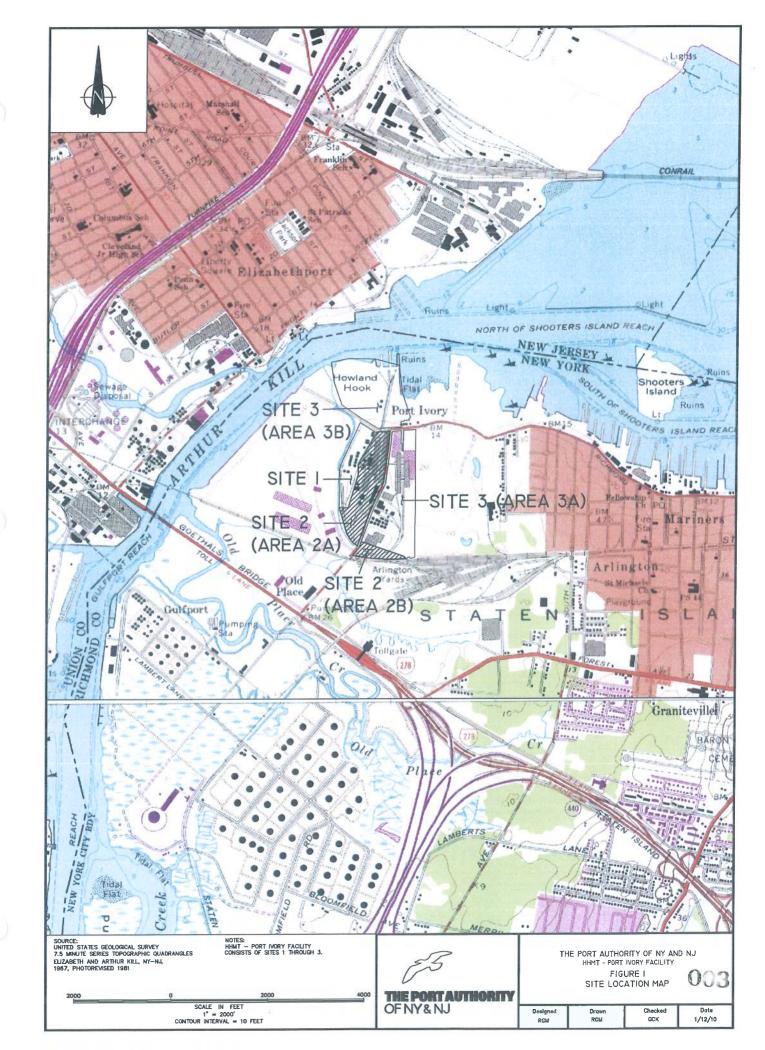


2.0 Introduction

The Port Authority is currently redeveloping the former P&G Port Ivory Facility, now known as the Howland Hook Marine Terminal (HHMT)-Port Ivory Facility. The property is located at 40 Western Avenue in Staten Island, Richmond County, New York, as presented on Figure 1. The HHMT-Port Ivory Facility consists of three parcels: Block 1309, Lot 10; Block 1338, Lot 1; and, Block 1400, Lot 1. The Port Authority purchased these three parcels from P&G in 2000. The HHMT-Port Ivory Facility is bordered by Bridge Creek to the west, the Arthur Kill to the north, wetlands and vacant land to the east, and a railroad to the south. 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.

The Port Authority is in the process of redeveloping the HHMT-Port Ivory Facility for a commercial end use; specifically, The Port Authority intends to utilize the property as an intermodal facility. For the purpose of this report, an intermodal facility is defined as a facility where cargo transported by ship is transferred to intermediate and final destinations via train or truck. Following redevelopment, an environmental cap will be constructed throughout the majority of the HHMT-Port Ivory Facility, including Site 2.

As part of the facility redevelopment, The Port Authority entered into the NYSDEC Voluntary Cleanup Program (VCP) in August 2002. The Port Authority's objective for entering into the VCP program with the NYSDEC was to address the presence of contamination due to prior operations at the facility that were unrelated to The Port Authority. The Port Authority has established different redevelopment schedules for different portions of the facility. To accommodate The Port Authority's redevelopment schedule, the NYSDEC agreed to expedite the review of information pertaining to certain portions of the facility. Thus, The Port Authority and the NYSDEC agreed to address the HHMT-Port Ivory Facility as three VCP Sites and submit assessment, investigation, and remedial action information/documentation for each individual Site. The Sites (See Figure 1) have been defined as follows: Site 1 consists of the northwestern portion of Block 1400, Lot 1; Site 2, which is further subdivided into Areas 2A and 2B, consists of the eastern and southern portions of Block 1400, Lot 1 (Area 2A) and the southern portion of Block 1338, Lot 1 (Area 2B); and, Site 3, which is further subdivided into Areas 3A and 3B, consists of the remaining portion of Block 1338, Lot 1 (Area 3A) and Block 1309, Lot 10 (Area 3B). The VCP agreement for Site 3 (Area 3A) formerly known as Site 3 (VCP agreement for Site V-00675-2, VCP Index Number W2-0987-02-04) was revised to incorporate Site 3 (Area 3B), formerly known as "Future





Site 4," on January 4, 2007. This FSRI includes information associated only with Site 2 (VCP Agreement V-00674-2), which encompasses 28.6 acres of the 123.75-acre HHMT-Port Ivory Facility. Area 2A has an area of 23.94 acres and Area 2B has an area of 4.66 acres.

Area 2A is bordered by Site 1 to the west, Richmond Terrace to the north, Western Avenue to the east, and a railroad to the south. Vehicular access to the northern portion of Area 2A is provided from the west by a paved access road from Site 1. Vehicular access to the central and southern portions of Area 2A is provided by two paved access roads, one located between Building Nos. 41 and 45 and the second located at the extreme southern portion of Area 2A. At the time of the Phase I ESA and SI, Area 2A was improved by numerous buildings and paved roadways and parking lots. The majority of these improvements have been razed in preparation for site redevelopment. Area 2A is currently improved by three buildings: a structure in the footprint of former Building No. 40, which has been razed; Building No. 41: and, Building No. 45. Please note, the structure in the footprint of former Building No. 40 consists of two temporary modular offices. A chain-link fence borders Area 2A to the north, east, and south. As part of site redevelopment, recently constructed railroad tracks and paved areas are located to the west of the existing buildings at Area 2A. The railroad tracks extend off the southern portion of Area 2A, cross over Western Avenue, and extend across Area 2B. Area 2A exhibits little relief and is devoid of vegetation. A soil pile is currently located along the western boundary of Area 2A; this soil pile was used for surcharging purposes and will be regraded or transported off site.

Area 2B is bordered by Western Avenue to the west, Site 3 to the north, marshland to the east, and a railroad and stream to the south. Area 2B exhibits a slight upward grade to the east. The northern boundary of Area 2B extends along the southern building wall of Building Nos. 74/75 such that Area 2B does not include the interior of Building Nos. 74/75 but includes exterior areas to the south of the buildings. Vehicular access to Area 2B is provided from Western Avenue and from Site 3. At the time of the Phase I ESA and SI, Area 2B was improved by (the southern portions of) Building Nos. 70, 70A, 70B, 70C, 70F, 70G, and 72. These buildings have been razed, and Area 2B is currently improved only by recently constructed railroad tracks trending in an east to west direction, paved roadways, and an out-of-service truck scale located within one of the roadways. Vegetation is present at most portions of Area 2B that are not paved; the densest vegetation occurs along a small stream located along the southern boundary of Area 2B.



Four utility easements traverse Area 2B; two of the easements, granted to Colonial Pipeline Company (Colonial) and IMTT, formerly owned by Texas Eastern, are believed to contain active pipelines. Reportedly, the IMTT easement contains a 12-inch liquid petroleum pipeline. The Colonial easement contains two liquid petroleum pipelines. The remaining easements contain inactive pipelines. One such easement granted to Texas Eastern, contains an inactive pipeline. The final easement, reported to have been owned at one time by the Tidewater Pipe Co., Ltd. (Tidewater), contains seven abandoned underground pipelines (Tidewater pipelines) that were formerly utilized to transmit petroleum products. All four easements are between 8 and 15 feet wide. Three of the easements, including the easement to IMTT that contains an active pipeline, trend approximately parallel to Western Avenue in the western portion of Area 2B before turning approximately 90 degrees to the east and trending from west-northwest to east-southeast across Area 2B before turning east-northeast and exiting the facility. The easement owned and maintained by Colonial, trends approximately north-south through the western portion of Area 2B before turning approximately 45 degrees and passing under Western Avenue into Area 2A.

Two utility easements, both associated with underground petroleum pipelines, are located at Area 2A. As noted above, one easement, maintained by Colonial, is present beneath both Areas 2A and 2B. This easement, associated with one active pipeline, runs along the western side of Area 2A and crosses the Area 2A-Site 1 boundary. The second easement, to Exxon-Mobil, is associated with two inactive pipelines that cross Bridge Creek in the southern portion of Area 2A and turn north, ultimately crossing the Area 2A-Site 1 boundary. The location of the IMTT, Texas Eastern, and Tidewater pipelines are presented on Figure 4.

2.1 Environmental Investigations at Site 2

Prior to conducting the FSRI, Hatch Mott MacDonald (HMM) conducted various phases of environmental investigation at Site 2 between calendar years 2000 and 2007 on behalf of The Port Authority. The overall goal of these investigations was to determine the appropriate remedial actions, if any, for soil and/or groundwater at Site 2 given the proposed site redevelopment for commercial (intermodal facility) purposes. Prior to the FSRI, HMM's environmental investigation efforts have included the performance of a Phase I Environmental Site Assessment with an additional file review (Phase I ESA), Site Investigation (SI), Remedial Investigation (RI), and a Supplemental Remedial Investigation (SRI). Limited soil excavation as part of an Interim Remedial Measure (IRM) was completed at Area 2B in 2006. The results of these activities are summarized in the CRIR dated April 2008, which has been submitted to the NYSDEC.



The Phase I ESA and SI were conducted to identify and characterize AOCs at the facility in 2000, prior to The Port Authority's purchase of the property. The RI and SRI were conducted following the transfer of the property from P&G to The Port Authority. The RI and SRI were conducted to further investigate selected AOCs that, based upon the results of the SI, were deemed to warrant additional investigation. Some of the AOCs targeted for investigation during the RI were inaccessible due to their proximity to buildings and other structures; subsequent to the RI, these buildings were demolished and these AOCs were investigated during the SRI.

The Port Authority conducted an IRM at Area 2B to remove LNAPL-impacted soil in one AOC (AOC-Southern Area. Based on the success of the IRM, no further evaluation was recommended for AOC-Southern Area.

Additional (FSRI) sampling/investigation was necessary in three open AOCs: AOC-Western Area, AOC-Area 2A Southeast, and AOC-TE Pipeline, which was identified subsequent to the SRI. AOC-Western Area is discussed in Section 2.1.1 and AOC-Area 2A Southeast is discussed in Section 2.1.2. Since no investigation was completed at AOC-TE Pipeline prior to the FSRI, AOC-TE Pipeline is not discussed in Section 2.1.

2.1.1 AOC-Western Area

The Port Authority encountered soil impacted by LNAPL during modification to the storm water system in the western portion of Area 2B. The area of LNAPL-impacted soil was identified as AOC-Western Area. A set of five pipelines, believed to be five of the seven Tidewater pipelines, and a single, inactive 12-inch-diameter pipeline, believed to be the Texas Eastern pipeline, were observed within the excavation. Impacted soil was excavated, transported to, and disposed of at the Edgeboro Landfill, an NJDEP-permitted disposal facility that is owned by the Middlesex County Utilities Authority.

The investigation of AOC-Western Area involved the collection of five soil samples and one groundwater sample from the excavation. The soil samples were analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and total petroleum hydrocarbons (TPHC). TPHC results ranged from 1,800 to 6,300 milligrams per kilogram (mg/kg). Other soil impacts, primarily PAH compounds, were detected at concentrations similar to those detected at other portions of the HHMT-Port Ivory Facility. Please note, samples were not collected from soil at the bottom of the excavation because the excavation was extended through fill material and into an underlying meadowmat unit. Since the



meadownat is dominated by clay, silt, and organic matter, it is both a barrier to vertical groundwater migration and a sink for organic compounds. Therefore, this unit is considered to represent the vertical limit for soil and groundwater impacts.

A sample of groundwater that had seeped into the excavation was collected as soon as possible following the observation of LNAPL-impacted soil. Analytical data indicate that groundwater has not been adversely impacted with regulated organic compounds. Since The Port Authority did not collect a sufficient number of post-excavation soil samples, additional post-excavation soil sampling was necessary during the FSRI to document the effectiveness of the soil removal efforts.

2.1.2 AOC-Area 2A Southeast

The Port Authority upgraded its storm water infrastructure near the southern Site 2 boundary between August and September 2006. The work to the east side of Western Avenue was conducted to install a culvert between two (approximately) east-west trending ditches. The southern ditch was to be drained by a pipe that extends west beneath Western Avenue onto Area 2A and discharges at Bridge Creek. The portion of the pipe located on the west side of Western Avenue is shown on Figure 3.

Soil impacted by the presence of LNAPL was encountered to the east of Western Avenue in AOC-Western Area. LNAPL-impacted soil was not encountered in the trench dug in Western Avenue, but was encountered immediately to the south of three Tidewater pipes on the west side of Western Avenue. As the LNAPL-impacted soil on the west side of Western Avenue appeared to be the result of a separate discharge from AOC-Western Area, it was identified as a separate Area of Concern termed AOC-Area 2A Southeast.

The LNAPL-impacted soil encountered at AOC-Area 2A Southeast was excavated and stockpiled onsite pending offsite disposal. To characterize the soil remaining along the excavation perimeter, The Port Authority collected three post-excavation soil samples in September 2006. The samples were collected in accordance with the NYSDEC *Draft DER-10 Technical Guidance for Site Investigation and Remediation*, dated December 2002. Soil samples, designated as WAW-1N and WAW-2S, respectively, were collected from a depth of 3 to 3.5 feet below the ground surface (bgs) from the north and south sidewalls of the excavation. The depth interval sampled corresponds to the most impacted interval as determined based on field observations. Sample WAW-1B was collected at a depth of 5 to 5.5 feet bgs from the bottom of the



excavation. Consistent with previous NYSDEC-approved work plans where LNAPL-impacted soil was being investigated and/or delineated, the samples were analyzed for VOCs, SVOCs, and TPHC.

Except for acetone in sample WAW-1N, no VOCs were detected at concentrations above their respective NYSDEC Recommended Soil Cleanup Objective (RSCO). Acetone was detected at a concentration of 0.25 mg/kg, which slightly exceeds its NYSDEC RSCO of 0.2 mg/kg. This minor exceedance of a single VOC in one soil sample does not warrant additional investigation or remediation. The concentrations of individual PAH compounds in the samples collected at WAW-1N, WAW-1B and WAW-2S exceeded their respective RSCOs and are attributable to historic fill materials placed at the site by P&G. However, the total concentration of PAH compounds in sample WAW-2S (705.5 mg/kg) exceeds the RSCO for total SVOCs (500 mg/kg) and the total concentration of PAH compounds detected in historic fill materials throughout the HHMT-Port Ivory Facility. Please note, cinders were encountered at location WAW-2S, and the elevated concentration of PAH compounds and total SVOCs may be attributable to cinders inadvertently being included in the soil sample. TPHC concentrations ranged from 1,200 mg/kg (in sample WAW-2S) to 14,000 mg/kg (in sample WAW-1N). The concentration of TPHC in the samples collected at WAW-1N and WAW-1B exceeded 5,000 mg/kg, the site-specific threshold that triggers an investigation for mobile (i.e., free) LNAPL.

All three soil samples identified above were collected while the excavation at Area 2A was open. Subsequently, The Port Authority installed a three-foot diameter storm water drainage pipe and backfilled the excavation to grade with soil from the surrounding area. Riprap was placed along the bank of Bridge Creek to stabilize the excavation backfill.

In addition to the analytical results, field observations and screening confirmed the presence of LNAPL-impacted soil at AOC-Area 2A Southeast. Soil along the north sidewall of the excavation appeared to be impacted by LNAPL from a depth of approximately 3 to 4 feet bgs. Based on field observations, soil impacts were most pronounced along the Tidewater pipelines. Mobile LNAPL was not observed in the excavation.

Additional investigation (i.e., the FSRI) was warranted at AOC-Area 2A Southeast due to both field observations and soil sampling analytical results. Horizontal delineation of LNAPL-impacted soil was incomplete. Confirmation that the soil, as opposed to cinders, at WAW-2S contained elevated concentrations of total PAH compounds was required. In the event the soil contained elevated



concentrations of total PAH compounds, horizontal delineation was required to the east, south, and west of location WAW-2S. Please note, vertical delineation was achieved at a depth of five feet bgs at WAW-2S.

Delineation of the TPHC in soil was not necessary because an RSCO has not been established for TPHC. However, TPHC concentrations at this site have been used as an indicator for LNAPL saturation in soil; the greater the concentration of TPHC, the greater the presumed LNAPL saturation. In addition, a TPHC concentration of over 5,000 mg/kg is a trigger for investigating the presence or absence of mobile LNAPL. Therefore, The Port Authority proposed to complete the delineation of the LNAPL-impacted soil based on filed screening and TPHC analytical results to determine where soil is most likely to contain mobile LNAPL. The presence or absence of free LNAPL would then be determined.

3.0 FSRI Goal and Scope of Work

The overall goal of the FSRI was to determine whether additional investigative and/or remedial efforts were required at the three open Site 2 AOCs (AOC-Area 2A Southeast at Area 2A and AOC-Western Area and AOC-TE Pipeline at Area 2B). The proposed scope of work for AOC-Area 2A Southeast was summarized in the NYSDEC-approved document entitled FSRI Work Plan AOC-Area 2A Southeast (Work Plan 1) at Area 2A dated August 24, 2007. The proposed scope of work for AOC-Western Area and AOC-TE Pipeline was summarized in the NYSDEC-approved document entitled Revised FSRI-Area 2B (Work Plan 2) dated December 12, 2006. Please note, sampling surface water of the unnamed tributary to Bridge Creek was included in Work Plan 2. However, this activity was completed separately and was summarized in the NYSDEC-approved CRIR dated April 2008.

The FSRI objectives were slightly different at each AOC. The FSRI objective at AOC-Western Area was to document the effectiveness of the soil removal efforts through the collection of post-excavation soil samples (Objective 1). Soil removal efforts were completed in 2005, and ten post-excavation samples were collected in 2006. However, the excavation was partially backfilled and post-excavation soil sampling frequency required by DER-10 (i.e., one per 30 linear feet) could not be achieved. The remaining post-excavation soil samples were collected in 2007 at soil boring locations.

The objectives of the FSRI at AOC-Area 2A Southeast were to confirm the presence or absence of elevated (i.e., above site-wide background) concentrations of PAH compounds at location WAW-2S (Objective 2); delineate LNAPL-impacted soil to the north of WAW-1N (Objective 3); investigate for the



presence of mobile LNAPL (Objective 4); and evaluate whether the presence of LNAPL has impacted groundwater or surface water (Objective 5).

The objectives of the FSRI at AOC-Area TE Pipeline were as follows: to determine the locations of underground pipelines located in easements to Texas Eastern and IMTT (Objective 6) and to confirm the presence or absence of LNAPL-impacted soil along these pipelines (Objective 7).

The FSRI scope of work for AOC-Western Area, AOC-Area 2A Southeast, and AOC-TE Pipeline is summarized below. Methods used during the FSRI field activities are described in Section 5.

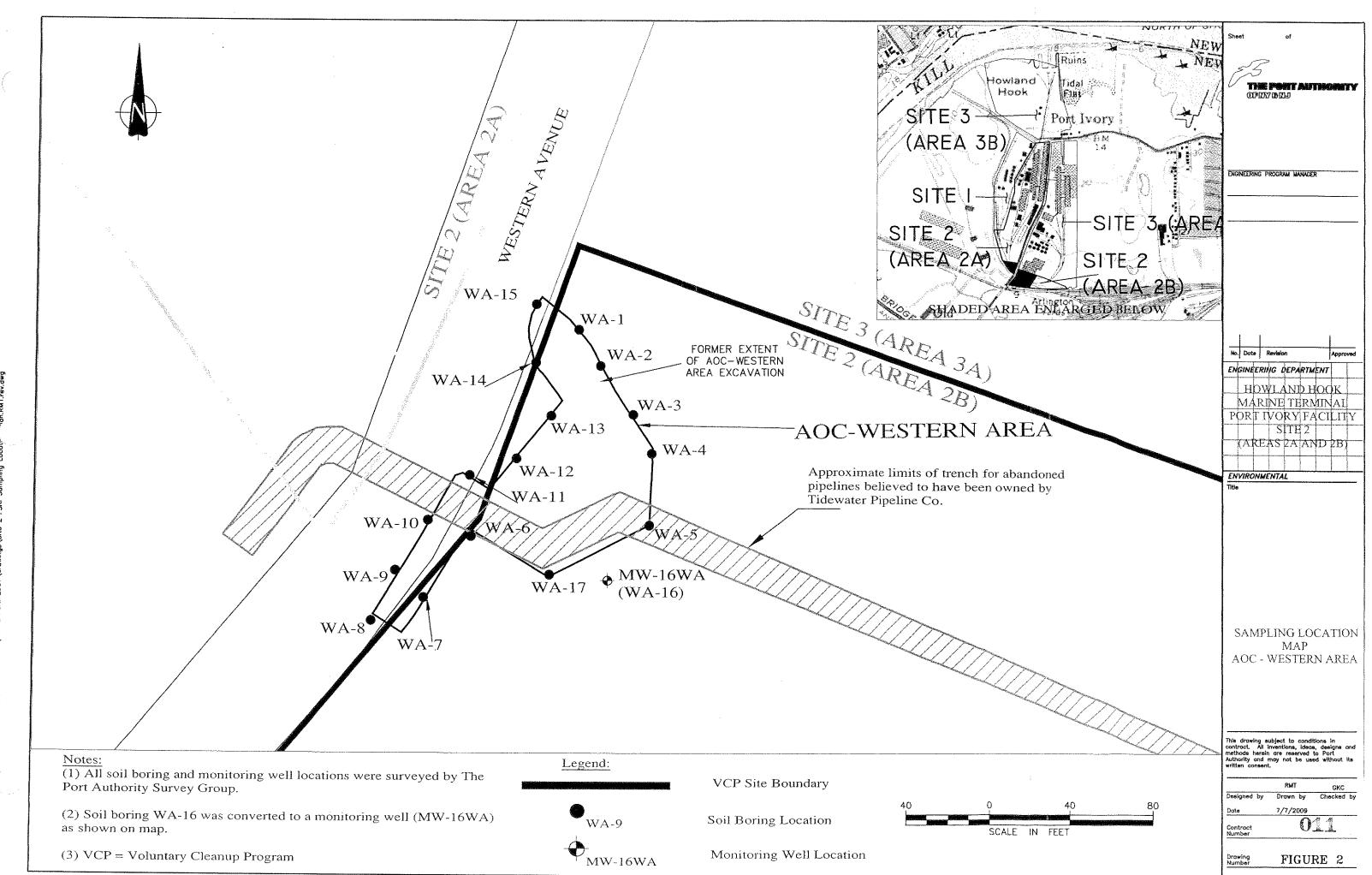
3.1 Scope of Work AOC-Western Area

The general scope of work for AOC-Western Area consisted of the investigation of soil quality at the AOC-Western Area excavation. Soil samples WA-1 through WA-17 (see Figure 2 for soil sampling locations) were collected along the perimeter of the excavation. Soil samples were collected directly from the excavation sidewalls at a rate of one soil sample per 30 linear feet of excavation sidewall. Since a portion of the western area excavation was backfilled at the time of sample collection, some post-excavation sidewall samples were collected by drilling soil borings. Soil borings were drilled at locations WA-1, WA-5, WA-12, WA-13, WA-14, WA-15, WA-16, and WA-17. No soil samples were collected from the meadowmat unit at the bottom of the excavation, which is believed to limit the vertical migration of impacts.

Although LNAPL was not encountered in AOC-Western Area, TPHC was detected at a concentration above 5,000 mg/kg at one location (WA-16). The Port Authority and the NYSDEC have established a TPHC concentration of 5,000 mg/kg as the threshold above which mobile LNAPL should be investigated. Consistent with other areas of the HHMT-Port Ivory Facility, the presence of mobile LNAPL was investigated during the FSRI by installing a monitoring well (MW-16WA) at WA-16. If LNAPL was measured in the well, then the presence of mobile LNAPL would be confirmed. If LNAPL did not flow into the well, the LNAPL would be considered to be present in residual saturation (i.e., immobile) because it did not flow into the well.

3.2 Scope of Work AOC-Area 2A Southeast

The scope of work for AOC-Area 2A Southeast included the confirmation of elevated concentrations of total PAH compounds at WAW-2S, the delineation of LNAPL-impacted soil, the confirmation of the



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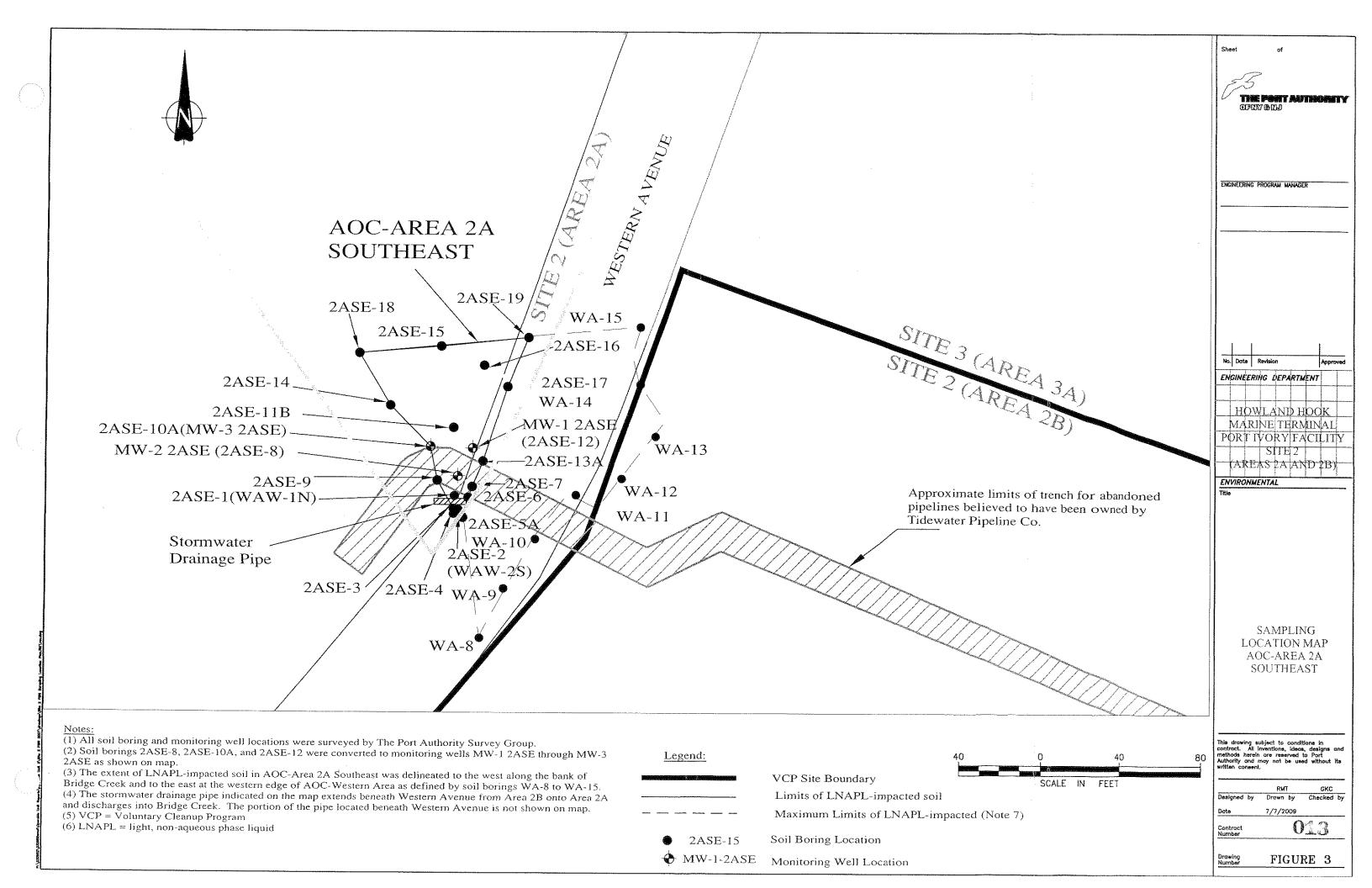


presence or absence of mobile LNAPL, and a groundwater investigation. Twenty-five soil samples were collected from 16 soil borings and groundwater samples were collected from three groundwater monitoring wells.

Elevated concentrations of PAH compounds and total SVOCs were previously detected in soil at WAW-2S in the 3-3.5 foot bgs depth interval. These impacts, which were delineated vertically at five feet bgs, may be attributable to the presence of cinders at this location. To confirm whether or not elevated concentrations of organic compounds are present in soil at WAW-2S (Objective 2), a confirmatory soil sample was collected from as close as possible to the original sample location and depth (3-3.5 foot bgs). The new location was identified as 2ASE-2. Care was taken to ensure that the soil sample did not contain cinders. The soil sample was analyzed for SVOC+20, which includes PAH compounds.

In the event that the soil sample at 2ASE-2 contained elevated concentrations of total PAH compounds, soil borings were drilled in the vicinity of WAW-2S (Objective 2). A step-out soil boring (AOC-Area 2ASE5) was drilled to the east, one soil boring (AOC-Area 2ASE4) was drilled to the south, and one soil boring (AOC-Area 2ASE3) was drilled to the west of WAW-2S. No soil samples were collected from a soil boring drilled to the north because delineation to the north was previously completed. A soil sample was collected from the 3 to 3.5 foot bgs depth interval at each step-out boring. The samples were placed on hold at the analytical laboratory, to be analyzed for SVOCs+20. If the confirmatory sample collected at WAW-2S contained concentrations of total PAH compounds above site-wide levels, the step-out samples would be analyzed. However, since elevated concentrations of PAH compounds and total SVOCs were not detected at WAW-2S, soil samples from the step-out borings were not analyzed by the analytical laboratory. See Figure 3 for sampling locations.

Concentrations of TPHC above 5,000 mg/kg, a site-specific criterion that triggers an investigation for mobile LNAPL, were previously detected in the 5-5.5 foot bgs depth interval at locations WAW-1B (at a concentration of 6,200 mg/kg) and WAW-1N (at a concentration of 14,000 mg/kg). Horizontal delineation is complete at location WAW-2S (i.e., to the south of locations WAW-1B and WAW-1N). Since the concentration of TPHC in soil was more than two times higher at location WAW-1N than at WAW-1B and since The Port Authority installed a storm water drainage pipe where sample WAW-1B was collected, a deeper soil sample below 5.5 feet bgs was collected at location WAW-1N (2ASE) for vertical delineation purposes.





To complete horizontal delineation of LNAPL-impacted soil in AOC-Area 2A Southeast (Objective 3), The Port Authority initially proposed to drill eight step-out borings to the north, east, and west of WAW-1N. Locations 2ASE6 through 2ASE9 were the "first" step-out soil borings, while locations 2ASE10A through 2ASE13A were the "second" step-out soil borings. However field observations indicated the presence of LNAPL-impacted soil to the north of WAW-1N was greater than expected and an additional 6 step-out soil borings (2ASE-14 through 2ASE-19) were drilled to complete the horizontal delineation. The soil samples were analyzed for TPHC. See Figure 3 for sampling locations.

Twenty-four soil samples were collected from 14 soil borings drill to delineate LNAPL-impacted soil in AOC-Area 2A Southeast (Objective 3). At locations where LNAPL-impacted soil was not encountered, a soil sample was collected from the six-inch depth interval immediately above groundwater. At locations where LNAPL-impacted soil was encountered, one sample was collected from the most impacted depth interval based on field observations and a second sample was collected from immediately below the impacted depth interval.

Since LNAPL-impacted soil was encountered in the vicinity of AOC-Area 2A Southeast and the concentration of TPHC exceeded 5,000 mg/kg, the site-specific threshold that triggers an investigation for mobile LNAPL, three groundwater monitoring wells were installed to confirm the presence or absence of mobile LNAPL. The locations were where the most pronounced soil impacts were detected based on field observations and TPHC results. Specifically, wells were installed at 2ASE-8 (MW-2-2ASE), 2ASE-10A (MW-3-2ASE), and 2ASE-12 (MW-1-2ASE). The presence or absence of LNAPL was confirmed in these wells using an oil-water indicator.

To evaluate whether the presence of LNAPL-impacted soil had impacted groundwater quality in AOC-Area 2A Southeast (Objective 5), a groundwater sample was collected from MW-1-2ASE, MW-2-2ASE, and MW-3-2ASE. The groundwater samples were analyzed for analyzed for VOC+10 and SVOC+20. See Figure 5 for groundwater sampling locations.

Groundwater was impacted with PAH compounds in AOC-Area 2A Southeast, surface water sampling was completed at three locations: one sample was collected approximately 50 feet upstream of where the groundwater impacts were detected in AOC-Area 2A Southeast, one sample was collected adjacent to the groundwater impacts, and one sample was collected approximately 50 feet downstream from where the



groundwater impacts were detected. The surface water samples were analyzed for the contaminant of concern, PAH compounds. See Figure 5 for surface water sampling locations.

3.3 Scope of Work AOC –TE Pipeline

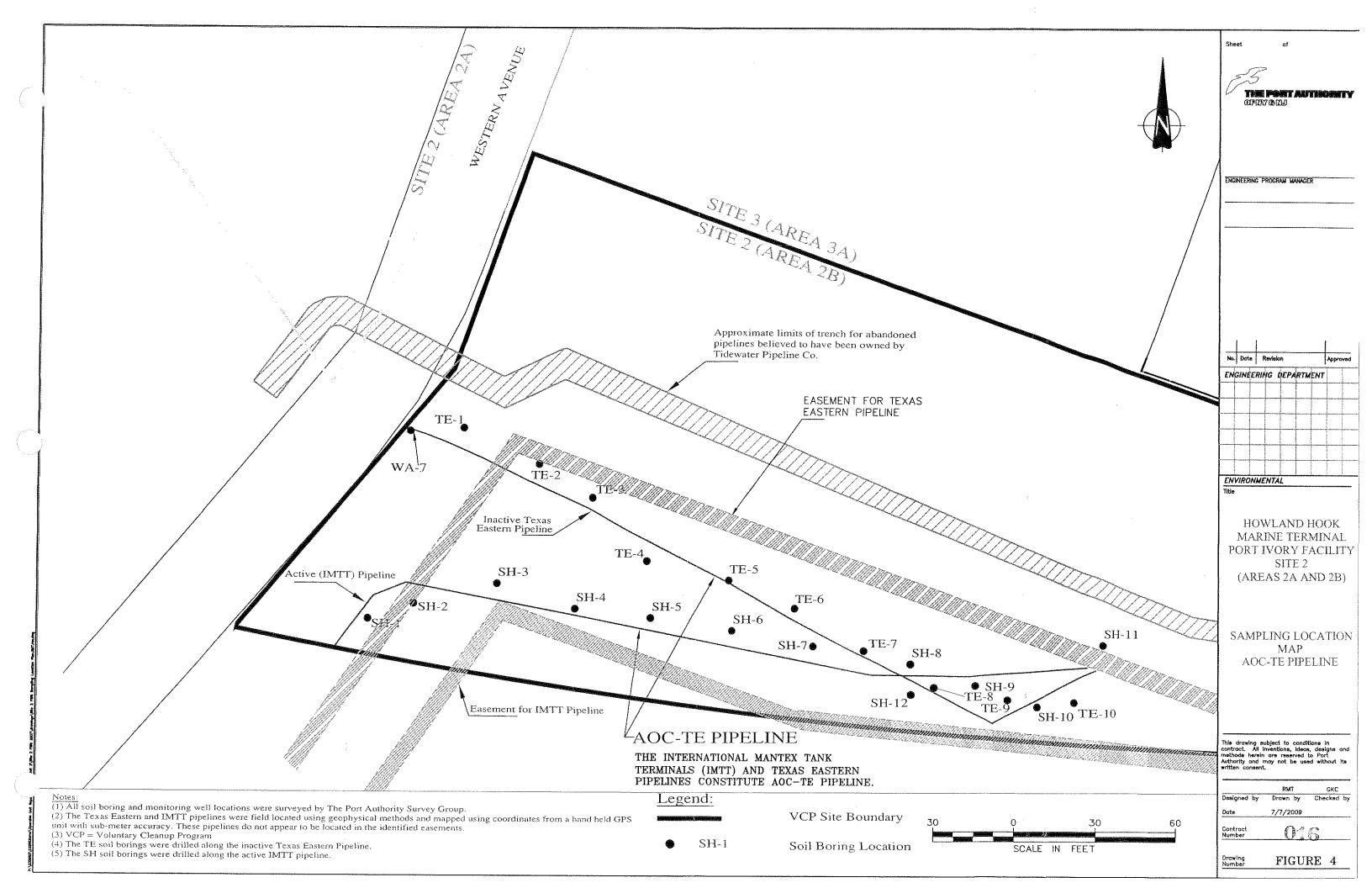
The general objectives for the FSRI at AOC-TE Pipeline were to locate underground pipelines in the Texas Eastern and IMTT easements at Area 2B and to characterize soil along the pipelines. Following the completion of the geophysical survey, soil borings were drilled along the Texas Eastern and IMTT pipelines and soil samples were collected and submitted to an analytical laboratory for analysis of VO+10 and SVOC+20.

The geophysical surveys utilized in locating the pipelines included the use of both line tracing and electromagnetic methods. The Texas Eastern pipeline was exposed at its intersection with the AOC-Western Area excavation. The IMTT pipeline was accessed by access ports at the pipeline run. Since both pipelines could be accessed, line tracing methods were initially used followed by electromagnetic methods to confirm the findings. A current was induced in the pipelines, where each was exposed. The pipelines were marked in the field with marking tape and pin flags, which were surveyed using a handheld global positioning system (GPS) device with sub-meter accuracy. Pipeline locations are shown on Figure 4.

As per the NYSDEC approved sampling rate along pipelines at other portions of the HHMT-Port Ivory Facility, one soil boring was drilled for each 50 feet of pipeline. Therefore, 10 soil borings were drilled along the Texas Eastern pipeline and 12 soil borings were drilled along the IMTT pipeline. A total of 22 soil samples were collected for analysis. Consistent with other areas of the HHMT-Port Ivory Facility, the soil samples were analyzed for VO+10, SVOC+20, and TPHC. See Figure 4 for sampling locations.

4.0 FSRI – METHODS

This section describes the methodology utilized during all field activities conducted during the FSRI. Descriptions of the methods used to complete the FSRI activities, including the performance of a geophysical survey, the drilling of soil borings, the collection of soil samples, the installation of groundwater monitoring wells, the collection of groundwater samples, and the collection of surface water samples are provided below in sections 4.1 through 4.6, respectively.





4.1 Geophysical Survey Methods

The geophysical survey was performed at Area 2B on March 5, 2007. The purpose of the geophysical survey was to locate single pipelines believed to be present in the Texas Eastern and IMTT easements. The geophysical survey included electromagnetic methods and line tracing methods.

Line tracing efforts consisted of inducing a current along the pipeline and tracing the current along the pipeline. The current was induced from a radio-frequency transmitter that was placed at grade or an electric current applied to the pipeline directly. All line tracing work involved placing the transmitter at grade above the pipeline and oriented in approximately the same direction as the pipeline. In no case was the receiver, the instrument used to detect the current, placed within 50 feet of the transmitter.

The wheel-mounted EM-61 transmitter and receiver were pulled along the study area at a uniform rate, and the electric field strength was measured every eight inches along transect lines. The transect lines were oriented perpendicular to the pipelines and established so that the pipelines ran through the center of the grid. The field strength data were contoured using the computer application Surfer. Anomalies were identified based on the contour map. The locations of the pipelines were mapped using a hand held GPS unit. Pipeline locations are included on Figure 4.

At the completion of the line tracing effort, markings were painted on the macadam/grass to indicate the results. The results were compared to the EM-61 survey results to confirm that the pipelines detected in the line tracing survey produced anomalies in the EM-61 survey. Pipeline locations are shown on Figure 4.

4.2 Drilling Methods – Soil Borings

All soil borings were drilled in accordance with NYSDEC regulations and guidance documents. Soil borings were drilled using manual and/or hollow stem auger drilling methods. As per Port Authority protocols for the protection of existing utilities, soil borings were drilled to a depth of six feet bgs using manual methods except for locations where macadam was present at ground surface. At locations where macadam was present at land surface, augers were used to drill through the macadam and the borehole was advanced below the macadam to a depth of six feet using manual methods. Manual methods included use of post-hole diggers and/or soil augers advanced by hand. These tools were used to advance the borehole and to collect six-inch-long soil cores for inspection.



At depths below six feet below grade, the soil boring was either extended to its completion depth using manual methods or was drilled using hollow stem auger drilling methods. Hollow stem auger drilling included the use of 4 1/4-inch augers, a center rod with a floating plug, and a 3-inch inner diameter split spoon sampler. The floating plug was inserted into the bottom auger, and the augers were advanced to approximately six feet bgs (i.e., to the bottom of the borehole advanced manually). The floating plug was removed, and the split spoon was driven two feet below the bottom of the auger using a 140-pound hammer that was repeatedly dropped approximately 30 inches onto rods connected to the split spoon. The split spoon was retrieved and the soil column was logged. The floating plug was inserted back into the augers, and the augers were advanced an additional two feet. The floating plug was removed, the split spoon was inserted into the augers, and an additional two feet of the soil column were recovered and inspected. This process continued until the soil boring was completed. Completion depths varied, but the soil borings were advanced to the bottom of the impacted soil (for soil borings where LNAPL-impacted soil were encountered) or to at least two feet below the water table (for soil borings where LNAPL-impacted soil was not observed) unless auger refusal was encountered. If auger refusal was encountered, the borehole was abandoned and a new soil boring was drilled adjacent to the abandoned boring location.

The soil column was logged continuously at all soil boring locations for (at a minimum) the following conditions: color; texture; moisture content; and, indications of LNAPL-impacted soil, including elevated concentrations of volatile organic vapors (as measured using a PID), discolored soil, sheen, LNAPL, and odor. Boring logs are included in Appendix A. Soil boring locations are shown on Figures 2, 3, and 4.

4.3 Soil Sampling Methods

Except for the soil sample collected at 2ASE-2 (WAW-2S) in AOC-Area 2A Southeast, soil samples were collected from the most impacted depth interval, as determined based on field screening results (primarily) or on field observations (secondarily) and a second soil sample was collected from a deeper depth interval, either where the soil appeared clean (i.e., did not exhibit indications of LNAPL impacts) or in the six-inch depth interval immediately above the meadowmat unit, which ever was shallower. Field screening consisted of measuring the concentration of volatile organic vapors present in the soil using a PID. Field observations included but were not limited to the presence of sheen, discolored soil, odor, and/or LNAPL. At locations where LNAPL-impacted soil was not encountered, the soil sample was collected from the depth interval immediately above groundwater. The soil sample collected at 2ASE-2 (WAW-2S) was collected at a predetermined depth interval based on previous analytical results.



Soil was transferred from the sampling device (i.e, the split spoon, hand auger, or post-hole digger) directly into sampling jars. All soil samples were submitted to Veritech, a New York-certified analytical laboratory for analysis.

4.4 Installation of Groundwater Monitoring Wells

During the FSRI, four soil borings (2ASE-8, 2ASE-10A, 2ASE-12, and WA-16) were converted to groundwater monitoring wells. Three of the monitoring wells were located in AOC-Area 2A Southeast and the remaining well was located in AOC-Western Area.

The monitoring wells were constructed of 2-inch diameter PVC screen and riser. The PVC screen and riser were inserted through the augers. All wells were constructed using 0.010-inch slot size screen that extended from approximately two feet above groundwater to the bottom of the borehole. The sand pack and seal were installed as the augers were removed from the ground. The sand pack consisted of number 2 size sand, and was installed to a depth of approximately one to two feet above the top of the screen. Bentonite pellets and Portland cement were installed above the sand pack in the wells to preclude storm water or perched water from entering the sand pack. The wells were completed with locking caps and flush-mount covers.

After installation, the wells were developed using the pump and surge method. Specifically, water was evacuated from each well using a submersible pump and dedicated tubing. The development continued until the discharge water appeared clear. Development water was monitored for clarity, color, pH, temperature, conductivity, turbidity, dissolved oxygen, and ORP/Eh. The measurements were recorded in the field book.

4.5 Collection of Groundwater Samples

A groundwater sample was collected from each of the four wells (MW-1 2ASE, MW-2 2ASE, MW-3 2ASE, and MW-16WA) installed at Site 2. Groundwater sampling was performed in accordance with NYSDEC requirements and guidance documents. Standard (3 to 5 volume purge) purging and sampling methods were used.

Prior to groundwater sampling, the presence or absence of LNAPL in the temporary well was confirmed and the depth to water in the well was measured relative to a surveyed reference point using an electronic oil-water interface meter. The volume of water within the well was calculated. The well was purged of



three to five times the calculated volume of water using a submersible pump. After the water level recovered, a dedicated Teflon bailer was lowered into the well, allowed to fill with water, and was removed from the well. The groundwater sample was transferred from the bailer into laboratory-prepared sampling jars. The samples were labeled and placed on ice in a cooler. All soil samples were transported to the analytical laboratory under chain-of-custody documentation. The groundwater samples were analyzed for VOC+10 and SVOC+20.

4.6 Collection of Surface Water Samples

Since the groundwater investigation at Area 2A Southeast indicated that groundwater at well location MW-2-2ASE is impacted with PAH compounds at concentrations above their respective AWQSGV, a surface water investigation was initiated. Three surface water samples were collected from Bridge Creek during low tide: one from a location approximately 50 feet upstream of well MW-2-2ASE, one from a location adjacent to well MW-2 2ASE, and one from a location approximately 50 feet downstream of well MW-2ASE. The surface water samples were collected from downstream to upstream to avoid disturbance of the samples. All three surface water samples were submitted to Veritech, a New York-certified analytical laboratory under full Chain-of-Custody documentation. The surface water samples were analyzed for PAH compounds since PAH compounds were the only contaminants detected in groundwater.

5.0 FSRI RESULTS

The FSRI conducted at Site 2 included the following components: completion of the geophysical survey, drilling of soil borings, the installation of monitoring wells, and the collection of soil, groundwater and surface water samples for analysis. During implementation of each component, field observations and measurements were recorded. The results of the FSRI efforts are presented below. Sections 5.1, 5.2, and 5.3 summarize the results of the geophysical survey, field observations, and analytical results, respectively.

5.1 Geophysical Survey

Using line tracing methods, the inactive Texas Eastern pipeline was traced from where the pipeline is exposed at AOC-Western Area, to approximately 400 feet to the southeast where the pipeline then turns approximately 45 degrees to the northeast, and to a point beneath recently constructed railroad tracks. The portion of the inactive Texas Eastern pipeline located during the geophysical survey is shown on Figure 4.



The active IMTT pipeline was located from where it enters the southern border of Area 2B near the unnamed tributary of Bridge Creek approximately 50 feet north where the pipeline turns 90 degrees to the east and travels approximately 300 feet east paralleling the unnamed tributary to Bridge Creek. The pipeline then turns 45 degrees northeast and travels under recently constructed railroad tracks. The portion of the active IMTT pipeline located during the geophysical survey is shown on Figure 4.

Please note, the inactive Texas Eastern and active IMTT pipelines extending to the northeast beyond the recently constructed railroad tracks were not located using geophysical methods because these portions of the pipelines were previously investigated along with the Tidewater pipelines as part of the SRI completed in 2006.

5.2 Field Observations

The following section provides a summary of field observations encountered during the FSRI. Field observations included the extent of potential soil impacts, as identified visually (i.e., the presence of LNAPL, discolored soil, sheen, etc.) and through field screening methods (i.e., the use of a PID to measure the concentration of volatile organic vapors in the soil column) as well as the soil color and depth to groundwater, if encountered. Field observations were recorded and samples were collected by The Port Authority Materials Group. A summary of the field observations at each location is indicated on Table 1. Field observations encountered at AOC-Area 2A Southeast, AOC-Western Area, and AOC-TE Pipeline are summarized in Sections 5.2.1, 5.2.2, and 5.2.3, respectively.

In general, soil encountered during the FSRI included urban fill material overlying a meadowmat substratum. Urban fill materials encountered generally consisted of variable amounts of sand, silts, and clay with cinders and slag. The meadowmat substratum consisted of clay and dark gray organic matter. The meadowmat (i.e., peat) layer is believed to act as a barrier to vertical migration of contaminants. The overburden materials encountered were consistent to those previously encountered at Site 2. Filter material (i.e., lime sludge) was encountered at soil boring TE-4 in AOC-TE Pipeline. For specific soil conditions at a soil boring/well location, please refer to the boring logs in Appendix A.

5.2.1 Field Observations AOC-Western Area

Soil samples were collected from the perimeter of the AOC-Western Area excavation. At areas where the excavation remained opened, the soils samples were collected directly from the sidewall. Where the excavation had been backfilled the soil samples were collected by advancing a soil boring below grade.

Table 1 Summary of Field Observations Focused Supplemental Remedial Investigation (2007) HHMT - Port Ivory Facility

Date Collected	Location	Indications of Petroleum- Impacted Soil?	Impacted Interval (ft bgs)	Sample Depth (ft bgs	Medium	Analyses	Depth to Water (ft bgs)	Maximum Concentration of Volatile Organic
9/13/2007	2ASE1	Yes	3.5-6	6.0-6.5	Soil	TPHC	5.0	Vapors (ppm) 13.0
9/12/2007	2ASE2	No	NE	3-3.5	Soil	PAH Compounds	4.0	13.0 ND
11/20/2007	2ASE3	No	NE	3-3.5	Soil	See Note 1	4.0	ND ND
9/13/2007	2ASE4	No	NE	3-3.5	Soil	See Note 1	NE NE	ND ND
9/12/2007	2ASE5A	Yes	4.0-5.5	3-3.5	Soil	See Note 1	NE NE	
9/13/2007	2ASE6	No	NE	4.5-5.0	Soil	TPHC	5.0	102.0
9/13/2007	2ASE7	Yes	2.0-6.0	4.0-4.5	Soil			ND
9/13/2007	2ASE7	No	2.0-6.0	6.0-6.5	Soil	TPHC	5.0	79.0
9/13/2007	2ASE8	Yes	2.0-6.0	4.0-4.5		TPHC	5.0	4.5
9/13/2007	2ASE8	No	2.0-6.0	6.0-6.5	Soil	TPHC	5.0	145.0
9/13/2007	2ASE9	Yes	2.8-6.0		Soil	TPHC	5.0	4.5
9/13/2007	2ASE9	No	2.8-6.0	4.0-4.5	Soil	TPHC	5.0	88.7
9/17/2007	2ASE10A			6.0-6.5	Soil	TPHC	5.0	11.2
9/17/2007	2ASE10A	Yes	3.0-4.0	3.5-4.0	Soil	TPHC	4.0	133.8
		No	3.0-4.0	5.5-6.0	Soil	TPHC	4.0	ND
9/18/2007	2ASE11B	Yes	3.0-4.5	3.5-4.0	Soil	TPHC	4.2	15.6
9/18/2007	2ASE11B	No	3.0-4.5	5.5-6.0	Soil	TPHC	4.2	ND
9/18/2007	2ASE12	Yes	3.3-4.3	3.0-3.8	Soil	TPHC	3.8	23.7
9/18/2007	2ASE12	No	3.3-4.3	4.3-4.8	Soil	TPHC	3.8	ND
9/14/2007	2ASE13A	Yes	NE	3.5-4.0	Soil	TPHC	5.0	66.3
9/14/2007	2ASE13A	No	NE	5.5-6.0	Soil	TPHC	5.0	17.0
11/5/2007	2ASE14	Yes	4-6	4.0-4.5	Soil	TPHC	4.0	
11/5/2007	2ASE14	No	4-6	7.5-8.0	Soil	TPHC	4.0	15.0
11/5/2007	2ASE15	No	NE NE	3.5-4.0	Soil	TPHC		ND ND
11/5/2007	2ASE 16	No	NE	4.0-4.5	Soil	TPHC	4.0	ND
11/7/2007	2ASE17	Yes	4 5-5 5	4.5-5.0			4.5	ND
11/7/2007	2ASE17	No	4.5-5.5	6.5-7.0	Soil	TPHC	4.9	31.0
11/7/2007	2ASE18	No No	4,5-5,5 NE	3.0-3.5	Soil	TPHC	4.9	ND
11/9/2005	2ASE19	No No	NE NE		Soil	TPHC	3.8	ND ND
11/5/2007				4.0-4.5	Soil	TPHC	4.5	ND
9/11/2006	WA-1 WA-2	No	NE NE	4.0-4.5	Soil	TCL VOC+10, TCL SVOC+20, TPHC	5.0	ND
		No	NE	3.5-4	Soil	TCL VOC+10, TCL SVOC+20, TPHC	4.0	ND
9/11/2006	WA-3	No	NE	3-3.5	Soil	TCL VOC+10, TCL SVOC+20, TPHC	3.5	ND
9/11/2006	WA-4	No	NE	3-3.5	Soil	TCL VOC+10, TCL SVOC+20, TPHC	3.5	ND
9/11/2006	WA-4	No	NE	3-3.5	Soil	TCL VOC+10, TCL SVOC+20, TPHC	3.5	ND
11/8/2007	WA-5	No	NE	4.0-4.5	Soil	TCL VOC+10, TCL SVOC+20, TPHC	5.0	ND
11/8/2007	WA-5	No	NE	6.5-7.0	Soil	TCL VOC+10, TCL SVOC+20, TPHC	5.0	ND
9/11/2006	WA-6	No	NE	3.5-4	Soil	TCL VOC+10, TCL SVOC+20, TPHC	4.0	ND
9/11/2006	WA-7	No	NE	4-4.5	Soil	TCL VOC+10, TCL SVOC+20, TPHC	4.5	ND
9/11/2006	WA-8	No	NE	3-3.5	Soil	TCL VOC+10, TCL SVOC+20, TPHC	3.5	ND
9/11/2006	WA-9	No	NE	3-3.5	Soil	TCL VOC+10, TCL SVOC+20, TPHC	3.5	ND
9/11/2006	WA-10	No	NE	3-3.5	Soil	TCL VOC+10, TCL SVOC+20, TPHC	3.5	ND
9/11/2006	WA-11	No	NE	3-3.5	Soil	TCL VOC+10, TCL SVOC+20, TPHC	3.5	ND
11/9/2007	WA-12	No	NE	4.5-5.0	Soil	TCL VOC+10, TCL SVOC+20, TPHC	5.0	ND ND
11/8/2007	WA-13	No	NE	3.0-3.5	Soil	TCL VOC+10, TCL SVOC+20, TPHC	3.5	
11/8/2007	WA-14	No	NE	3.0-3.6	Soil	TCL VOC+10, TCL SVOC+20, TPHC	3.7	ND ND
11/7/2007	WA-15	No	NE	6-6.5	Soil	TCL VOC+10, TCL SVOC+20, TPHC		7.0
11/8/2007	WA-16	No	NE NE	4.5-5	Soil	TCL VOC+10, TCL SVOC+20, TPHC	6.5	ND
11/9/2007	WA-17	No	NE NE	5.5-6		TCL VOC+10, TCL SVOC+20, TPHC	5.0	ND
11/9/2007	TE-1	No	NE NE		Soil	TCL VOC+10, TCL SVOC+20, TPHC	6.0	ND
11/9/2007	TE-2	No No		NA 4.5.5.0	Soil	See Note 1	4.0	ND
11/9/2007	TE-3		NE NE	4.5-5.0	Soil	TCL VOC+10, TCL SVOC+20, TPHC	5.0	ND
11/16/2007	TE-4	No No	NE NE	4.5-5.0	Soil	TCL VOC+10, TCL SVOC+20, TPHC	5.0	ND
11/16/2007	TE-5	No No	NE NE	6.0-6.5	Soil	TCL VOC+10, TCL SVOC+20, TPHC	6.5	ND
			NE NE	6.5-7	Soil	TCL VOC+10, TCL SVOC+20, TPHC	7.0	ND
11/16/2007	TE-6	No	NE NE	4.5-5.0	Soil	TCL VOC+10, TCL SVOC+20, TPHC	5.0	ND
11/16/2007	TE-7	No	NE	5.5-6.0	Soil	TCL VOC+10, TCL SVOC+20, TPHC	6.0	ND
11/12/2007	TE-8	No	NE	5.5-6.0	Soil	TCL VOC+10, TCL SVOC+20, TPHC	6.0	ND
11/12/2007	TE-9	No	NE	5.5-6.0	Soil	TCL VOC+10, TCL SVOC+20, TPHC	6.0	ND
11/21/2007	TE-10	No	NE	6.5-7.0	Soil	TCL VOC+10, TCL SVOC+20, TPHC	7.0	ND
11/8/2007	SH-1	No	NE	4.0-4.5	Soil	TCL VOC+10, TCL SVOC+20, TPHC	4.5	ND
11/20/2007	SH-2	No	NE	3.5-4.0	Soil	TCL VOC+10, TCL SVOC+20, TPHC	4.0	ND
11/20/2007	SH-3	No	NE	5.5-6.0	Soil	TCL VOC+10, TCL SVOC+20, TPHC	6.0	ND
11/8/2007	SH-4	No	NE	4.5-5.0	Soil	TCL VOC+10, TCL SVOC+20, TPHC	4.9	ND
11/21/2007	SH-5	No	NE	3.5-4.0	Soil	TCL VOC+10, TCL SVOC+20, TPHC	4.0	ND
11/8/2007	SH-6	No	NE	5.0-5.5	Soil	TCL VOC+10, TCL SVOC+20, TPHC	5.5	ND ND
11/14/2007	SH-7	No	NE	3.5-4	Soil	TCL VOC+10, TCL SVOC+20, TPHC	4.0	
11/20/2007	SH-8	No	NE	4.5-5.0	Soil	TCL VOC+10, TCL SVOC+20, TPHC	5.0	ND
11/12/2007	SH-9	No	NE NE	5.5-5.5	Soil	TCL VOC+10, TCL SVOC+20, TPHC		ND
11/14/2007	SH-10	No	NE NE	6.0-6.5	Soil	TCL VOC+10, TCL SVOC+20, TPHC	5.5	ND ND
11/13/2007	SH-11	No				TCL VOC+10, TCL SVOC+20, TPHC	6.5	ND
11/12/2007	SH-12	No No	NE NF	4.0-4.5	Soil	TCL VOC+10, TCL SVOC+20, TPHC	4.5	ND
12/5/2007				4.0-4.5	Soil	TCL VOC+10, TCL SVOC+20, TPHC	5.0	ND
12/5/2007	MW-1-2ASE (2ASE-12)	Yes	3.3-4.3	NA NA	Groundwater	TCL VOC+10, TCL SVOC+20	2.31	NA
	MW-2-2ASE (2ASE-8)	Yes	2.0-6.0	NA NA	Groundwater	TCL VOC+10, TCL SVOC+20	2.61	NA
12/10/2007	MW-3-2ASE (2ASE-10A)	Yes	3.0-4.0	NA NA	Groundwater	TCL VOC+10, TCL SVOC+20	1.00	NA
12/7/2007	MW-16WA (WA-16)	NA	NE	NA	Groundwater	TCL VOC+10, TCL SVOC+20	1.81	NA
9/23/2008	SW-1	NA NA	NA	NA	Surface Water	PAH Compunds	NA	NA
9/23/2008	SW-2	NA NA	NA	NA	Surface Water	PAH Compunds	NA	NA
9/23/2008	SW-3	NA	NA	NA	Surface Water	PAH Compunds	NA	NA
Notes and Al	obreviations							

Notes and Abbreviations

1. No soil samples were submitted for laboratory analysis.

3. The reported depths to groundwater at soil borings are based on field observations during drilling.

4. The depth to water readings measured at monitoring wells were reported from top of casing and were reported to the nearest 0.01 feet.

NE= Not encountered

NE= Not encountered ppm= parts per million above site background
ND=Not detected above site background concentrations
Ft bgs = Feet below ground surface
mg/Kg = Milligrams per kilogram
LNAPL = Light non-aqueous phase liquid
NA= Not Applicable
PAH= polycyclic aromatic hydrocarbons
TCL = Target Compound List
VOC+10 = Volatile Organic Compounds with a 10-compounds library search
SVOC+20 = Semi Volatile Organic Compounds with a 20-compounds library search
TPHC = Total Petroleum Hydrocarbons



Soil samples were collected from 17 locations (WA-1 through WA-17). With the exception of soil boring WA-5, one soil sample was collected at each soil boring location. Two samples were collected and analyzed from WA-5: one was collected to characterize dark colored soil present in the 4 to 4.5-foot depth interval and the second for post-excavation purposes. Field screening with a PID measured volatile organic vapors at a concentration of 32.5 mg/kg in the dark-colored soil at WA-5. A deeper sample was collected at the apparent "clean" zone at a depth of 6 to 6.5 feet where dark colored soil was not apparent and volatile organic vapors were not measured above site background using a PID. This depth interval corresponded to the groundwater interface. Based on field observations and analytical results, the black coloration appeared to be attributable to the material used for fill rather than to LNAPL impacts.

Fill materials encountered were consistent with those described above. The meadowmat unit was encountered below the fill material. The fill-meadowmat contact varied in depth from 5 to 7.5 feet bgs.

With the exception of WA-5, no concentrations of volatile organic vapors above site background were measured using a PID. Neither LNAPL, nor LNAPL impacts were encountered at any of the soil boring locations. Groundwater was encountered at depths between 2 and 6.5 feet bgs during drilling.

Although no LNAPL was encountered in AOC-Western Area, TPHC was detected at a concentration above 5,000 mg/kg at one location (WA-16). To confirm that mobile LNAPL was not present at WA-16, The Port Authority installed and sampled a monitoring well at this location. LNAPL was not encountered in the well during gauging on December 17, 2007.

Groundwater was encountered in shallow well MW-16WA at an elevation of approximately 3.7 feet above mean sea level (AMSL). The groundwater flow direction is generally anticipated to be to the south towards the unnamed tributary of Bridge Creek.

5.2.2 Field Observations AOC-Area 2A Southeast

Indications of LNAPL impacts, including sheen on soil and groundwater, petroleum odors, and/or stained soil, were encountered at soil boring locations 2ASE-1, 2ASE-5, 2ASE-7 through 2ASE-14, and 2ASE-17. Concentrations of volatile organic vapors measured using a PID exceeded 100 mg/kg at 2ASE-5, (102 mg/kg), 2ASE-8 (145 mg/kg), and 2ASE-10A (133.8 mg/kg). Where encountered, LNAPL-impacted soil was present between approximately two and six feet bgs. The thickness of petroleum



impacts ranged from one to four feet, with an average thickness of two feet. In general, petroleum impacts were encountered approximately one foot above and one foot below the water table.

Fill materials encountered were consistent with those described above. The meadowmat unit was encountered below the fill material. The fill-meadowmat contact varied in depth from 5.5 to 6 feet bgs. Groundwater was encountered at depths between approximately 4 and 5 feet bgs during drilling.

Groundwater monitoring wells were installed at 2ASE-8 (MW-1-2ASE), 2ASE-10A (MW-2-2ASE), and 2ASE-12 (MW-3-2ASE) to investigate for mobile LNAPL and to evaluate potential impacts to groundwater from the presence of LNAPL. These three locations were selected because they exhibited the most pronounced impacts based on field observations and the greatest concentration of TPHC in soil. LNAPL was not encountered in any well during gauging on December 17, 2007. Therefore, mobile LNAPL is not anticipated in AOC-Area 2A Southeast.

Groundwater was encountered in the shallow wells at elevations ranging from approximately 3.84 at well MW-2 2ASE to 4.91 feet above mean sea level (AMSL) at well MW-3 2ASE. The groundwater flow direction is generally anticipated to be towards Bridge Creek. The variability in the static water level, if any, is due to the tidal fluctuation of the adjacent Bridge Creek.

5.2.3 Field Observations AOC-TE Pipeline

Ten soil borings (TE-1 through TE-10) were drilled along the inactive Texas Eastern pipeline and 12 soil borings (SH-1 through SH-12) were drilled along the active IMTT pipeline. Fill materials encountered were consistent with those described above. The meadowmat unit was encountered below the fill material and varied in depth from six to nine feet bgs. No elevated concentrations of volatile organic vapors were measured using a PID. LNAPL-impacted soil was not encountered at any of the soil boring locations. Groundwater was encountered at a depth of four to seven feet bgs during drilling. Since LNAPL-impacted soil was not encountered and concentrations of organic compounds are similar to site-wide background concentrations, no monitoring wells were installed in this AOC to investigate the environmental quality of groundwater or the presence or absence of mobile LNAPL.

5.3 Analytical Results

In order to meet the objectives, the FSRI included the collection of soil, groundwater and surface water samples for analysis. Sections 5.3.1 through 5.3.3 summarize the analytical results for soil, and surface water samples, respectively.



5.3.1 Soil Sampling Analytical Results

The soil sampling component of the FSRI at AOC-Area 2A Southeast was conducted to confirm the presence of elevated concentrations of PAH compounds at one location (WAW-2S, as per Objective 2) and, if present, to delineate LNAPL-impacted soils at this AOC. Soil sampling was completed at AOC-Western Area and AOC-TE Pipeline to confirm the presence or absence of LNAPL-impacted soil at these AOCs. The soil sampling summary is indicated on Table 1. Analytical results are summarized in Tables 2A through 2C.

For the purposes of this summary, the soil sampling analytical results have been compared to the RSCOs set forth in the January 1994 NYSDEC Division of Technical and Administrative Guidance Memorandum (TAGM) 4046. Please note, the reference to these cleanup objectives in this report does not represent any agreement or concurrence that the same are appropriate for usage at this site.

AOC-Western Area Soil Sampling Results

The sampling program for AOC-Western Area included the collection of 18 soil samples from 17 locations. The samples were analyzed for VO+10, SVOC+20, and TPHC.

With the exception of the methylene chloride detected in the soil sample collected at WA-16, no VOCs were detected at concentrations greater than their respective RSCOs in any of the soil samples collected from AOC-Western Area. Methylene chloride was detected at a concentration of 0.2 mg/kg, above its RSCO of 0.1 mg/kg. Methylene chloride, a common laboratory solvent, was also detected in the method blank prepared and analyzed by the laboratory. The concentration of methylene chloride in the soil sample is therefore attributable to laboratory contamination. Total concentrations of VOC tentatively identified compounds (TICs) were below 9 mg/kg in all samples.

The following SVOCs were detected at concentrations that exceeded their respective RSCOs in at least one of the soil samples collected in AOC-Western Area: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, and dibenzo(a,h)anthracene. All these compounds are PAH compounds, a subset of SVOCs that have been detected in historic fill throughout the HHMT-Port Ivory Facility. The concentrations of these PAH compounds detected in AOC-Western Area soil samples are similar to those detected in the historic fill. The concentrations of SVOC TICs were below 250 mg/kg.

							5116	- 4											
Location		T	WA-1			WA-2			WA-3	***************************************	1	WA-4			WA-5		T	WA-5	
Sample ID Lab Sample No.	Now York	2	WA1-1105			CWA-2 (3			CWA-3 (3			CWA-4 (3			VA05-110			VA05-1108	
Sampling Date	New York RSCOs		C34093-0 11/5/200			25567-			25567-			25567-			C34275-			34275-	
Matrix	Racos	1	SOLID	'	'	9/11/200 SOLID		'	9/11/200		'	9/11/200	-		11/8/200		}	11/8/200	
Sample Depth (feet bgs)		İ	4-4.5		1	3.5-4		1	SOLID		1	SOLID		l	SOLID	1	l	SOLID)
Volatile Organic Compounds (VOCs)	Conc	MDL	Qual	Conc	MDL	Qual	Conc	3-3.5 MDL	Qual	Conc	3-3.5	10.		4-4.5		<u> </u>	6.5-7	
1,1,1-Trichloroethane	0.8	ND	0.006	Quai	ND	+	Quai	-		Quai		MDL	Qual	Conc	MDL	Qual	-	MDL	Qual
1,1,1,2-Tetrachloroethane	NS	NA NA	0.006		ND	0.0062		ND	0.0061	-	ND	0.0063		ND	0.0063		ND	0.006	
1,1,2,2-Tetrachioroethane	0.6	ND ND	0.006		ND	0.0062		ND	0.0061	 	ND	0.0063	-	NA		-	NA		<u> </u>
1,1,2-trichloro-1,2,2-trifluoroethane	6	ND	0.006		NA NA	0.0062	-	ND NA	0.0061	 	ND NA	0.0063	-	ND	0.0063		ND	0.006	-
1,1,2-Trichloroethane	NS	ND	0.006		ND	0.0062		ND	0.0061	-	ND	0.0063	ļ	ND	0.0063	-	ND	0.006	
1,1-Dichloroethane	0.2	ND	0.006		ND	0.0062		ND	0.0061		ND	0.0063	-	ND	0.0063	-	ND	0.006	+
1,1-Dichloroethene	0.4	ND	0.006		ND	0.0062		ND	0.0061		ND	0.0063	 	ND ND	0.0063		ND	0.006	+
1,2,3-Trichloropropane	NS	ND	0.006		NA	100002		NA.	0.0001	<u> </u>	NA NA	0.0003		ND	0.0063	-	ND ND	0.006	ļ
1,2,4-Trimethylbenzene	NS	ND	0.0012	-	NA			NA			NA			0.0013	0.0003	 	ND	0.006	-
1,2-Dichlorobenzene	7.9	ND	0.006		NA			NA			NA.			ND	0.0063		ND	0.0012	+
1,2-Dichloroethane	0.1	ND	0.006		ND	0.0062		ND	0.0061		ND	0.0063		ND	0.0063		ND	0.006	
1,2-Dichloropropane	NS	ND	0.006		ND	0.0062		ND	0.0061		ND	0.0063		ND	0.0063	-	ND	0.006	+
1,3,5-Trimethylbenzene	NS	ND	0.0012		NA			NA			NA			ND	0.0013	l	ND	0.0012	<u> </u>
1,3-Dichlorobenzene	1.6	ND	0.006		NA			NA			NA			ND	0.0063		ND	0.006	t
1,3-Dichloropropane	NS	ND	0.006		NA			NA			NA			ND	0.0063		ND	0.006	
1,4-Dichlorobenzene	8.5	ND	0.006		NA			NA			NA			ND	0.0063		ND	0.006	
1,4-Dioxane	NS	ND	0.3		NA			NA			NA .			ND	0.32		ND	0.3	1
2-Butanone	0.3	ND	0.006		ND	0.0062		ND	0.0061		ND	0.0063		ND	0.0063		ND	0.006	
2-Chloroethylvinylether	NS	ND	0.006		ND	0.0062		ND	0.0061		ND	0.0063		ND	0.0063		ND	0.006	
2-Hexanone	NS	ND	0.006		ND	0.0062		ND	0.0061		ND	0.0063		ND	0.0063		ND	0,006	
4-Isopropyltoluene 4-Methyl-2-Pentanone	NS 1	ND	0.0012		NA			NA			NA			ND	0.0013		ND	0.0012	
Acetone		ND 0.004	0.006		ND	0.0062		ND	0.0061		ND	0.0063		ND	0.0063		ND	0.006	
Acrolein	0.2 NS	0.031 ND	0.03		ND ND	0.031		ND	0.03		ND	0.032		0.035	0.032		0.043	0.03	L
Acrylonitrile	NS NS	ND	0.006		ND	0.0062	-	ND ND	0.03		ND	0.032		ND	0.032		ND	0.03	
Benzene	0.06	ND	0.0012		ND	0.0002		ND	0.0001		ND ND	0.0063		ND	0.0063	-	ND	0.006	
Bromodichloromethane	NS	ND	0.006		ND	0.0062		ND	0.0012		ND	0.0013		ND ND	0.0013		ND	0.0012	-
Bromoform	· NS	ND	0.006		ND	0.0062		ND	0.0061		ND	0.0063	-	ND	0.0063		ND ND	0.006	-
Bromomethane	NS	ND	0.006	-	ND	0.0062		ND	0.0061		ND	0.0063		ND	0.0063		ND	0.006	-
Carbon disulfide	2.7	ND	0.006		ND	0.0062		ND	0.0061		ND	0.0063		ND	0.0063		ND	0.006	<u> </u>
Carbon tetrachloride	0.6	ND	0.006		ND	0.0062		ND	0.0061		ND	0.0063		ND	0.0063		ND	0.006	·
Chlorobenzene	1.7	ND	0.006		ND	0.0062		ND	0.0061		ND	0.0063		ND	0.0063		ND	0.006	
Chloroethane	1.9	ND	0.006		ND	0.0062		ND	0.0061		ND	0.0063		ND	0.0063		ND .	0.006	
Chloroform	0.3	ND	0.006		ND	0.0062		ND	0.0061		ND	0.0063		ND	0.0063		ND	0.006	
Chloromethane	NS	ND	0.006		ND	0.0062		ND	0.0061		ND	0.0063		ND	0.0063		ND	0.006	
cis-1,2-Dichloroethene	NS	ND	0.006		ND	0.0062		ND	0.0061		ND	0.0063		ND	0.0063		ND	0.006	
cis-1,3-Dichloropropene	NS	ND	0.006		ND	0.0062		ND	0.0061		ND	0.0063		ND	0.0063		ND	0.006	İ
Dibromochloromethane Dichlorodifluoromethane	NS NS	ND	0.006		ND	0.0062		ND	0.0061		ND	0.0063		ND	0.0063		ND	0.006	
Ethylbenzene	5.5	ND ND	0.006		NA ND	0.0012		NA ND	0.0012		NA ND	0.0015		ND	0.0063		ND	0.006	
Isopropylbenzene	NS	ND	0.0012		NA NA	0.0012		NA NA	0.0012		ND NA	0.0013		ND	0.0013		ND	0.0012	
m&p-Xylenes	1.2	ND ND	0.0012		ND	0.0025		ND ND	0.0024	-	NA ND	0.0025		ND ND	0.0013		ND	0.0012	
Methylene chloride	0.1	0.023	0.006	В	0.047	0.0023	В	0.033	0.0024	В	0.029	0.0025	В	0.014	0.0025	В	ND 0.017	0.0024	
Methyl-t-butyl ether	NS	ND	0.0012		NA			NA NA	2,0001		NA NA	0.0003	-	ND	0.0063	P	ND	0.006	В
n-Butylbenzene	NS	ND	0.0012		NA			NA			NA NA			ND	0.0013		ND	0.0012	· · · · · ·
n-Propylbenzene	NS	ND	0.0012		NA			NA			NA NA			ND	0.0013		ND	0.0012	
o-Xylene	1.2	ND	0.0012		ND	0.0012		ND	0.0012		ND	0.0013		ND	0.0013		ND	0.0012	
sec-Butylbenzene	NS	ND	0.0012		NA			NA			NA			ND	0.0013		ND	0.0012	rodin, ki ang
Styrene	NS	ND	0.006		ND	0.0062		ND	0.0061		ND	0.0063		ND	0.0063		ND	0.006	
t-Butyl Alcohol	NS	ND	0.03		NA			NA			NA			ND	0.032		ND	0.03	
t-Butylbenzene	NS	ND	0.0012		NA			NA			NA			ND	0.0013		ND	0.0012	
Tetrachloroethene	1.4	ND	0.006		ND	0.0062		ND	0.0061		ND	0.0063		ND	0.0063		ND	0.006	
Toluene	1.5	ND	0.0012		ND	0.0012		ND	0.0012		ND	0.0013		ND	0.0013		ND	0.0012	
trans-1,2-Dichloroethene	0.3	ND	0.006		ND	0.0062		ND	0.0061		ND	0.0063		ND	0.0063		ND	0.006	
trans-1,3-dichloropropene	NS	ND	0.006		ND	0.0062		ND	0.0061		ND	0.0063		ND	0.0063		ND	0.006	
Trichloroethene	0.7	ND	0.006		ND	0.0062		ND	0.0061		ND	0.0063		ND	0.0063		ND	0.006	
Trichlorofluoromethane Vinyl chloride	NS 0.2	ND	0.006		NA ND	0.0000		NA .			NA			ND	0.0063		ND	0.006	
Total VOC TICs	0.2 NS	ND 0.0054	0.006		ND 0.0129	0.0062		ND	0.0061		ND	0.0063		ND	0.0063		ND	0.006	<u> </u>
Total VOC 1108	СМ	0.0054			0.0129		J	0.0111		J	0.0295		J	0.237		J	0.0057		J

Notes and Abbreviations

- Bold concentrations in shaded cells exceed the RSCOs
- Duplicate samples collected from SH-5D and TE-4D mg/Kg = mlilligrams per kilogram (all units reported in mg/Kg).
- RSCOs = Recommended Soil Cleanup Objectives from the Technical and Administrative Guidance Memorandum # 4046, dated January 24, 1994.

NA = Not analyzed

NS = No Standard

Conc = Concentration

MDL = Quantitation Limit

Qual = Laboratory Data Qualifier
ND ≈ The compound was not detected

- B = The analyte was found in the laboratory blank and the sample. This indicates possible laboratory
- contamination of the sample.

 J = The compound was detected at a concentration below the calibration range. The concentration is

estimated.
Feet bgs = Feet below ground surface
TICs = Tentatively identified compounds

Location			14/4 C		T	10/0 7								-					
Sample ID		۸,	WA-6 3) 6-WA	5.4)	1	WA-7 CWA-7 (4	4.53	١.,	8-AW		l	WA-9			WA-10		Ĭ	WA-11	1
Lab Sample No.	New York		C25567-	•	I	CWA-7 (4 C25567-			COEFOZ			CWA-9 (3			CWA-10 (CWA-11 (
Sampling Date	RSCOs		9/11/200		l .				C25567-		1	C25567-			C25567-			25567-	
Matrix	Nocos	1	SOLID	ю	1	9/11/200			9/11/200			9/11/200	-		9/11/200		1	9/11/200	06
Sample Depth (feet bgs)		1			ł	SOLID			SOLID)	1	SOILD			SOILD)	l	SOLIDS	S
Volatile Organic Compounds (\	(OCa)	+	3.5-4	01	 	4-4.5			3-3.5	·		3-3.5			3-3.5			3-3.5	
		Conc	MDL	Qual	Conc	MDL	Qual	Conc	MDL	Qual	Conc	MDL	Qual	Conc	MDL	Qual	Conc	MDL	Qua
1,1,1-Trichloroethane	0.8	ND	0.0063		ND	0.006		ND	0.0063		ND	0.006		ND	0.0063		ND	0.0063	T
1,1,1,2-Tetrachloroethane	NS	ND	0.0063		ND	0.006		ND	0.0063		ND	0.006		ND	0.0063		ND	0.0063	
1,1,2,2-Tetrachloroethane	0.6	ND	0.0063		ND	0.006		ND	0.0063		ND	0.006		ND	0.0063		ND	0.0063	1
1,1,2-trichloro-1,2,2-trifluoroethane	6	NA			NA			NA			NA			NA			NA		
1,1,2-Trichloroethane	NS	ND	0.0063		ND	0.006		ND	0.0063		ND	0.006		ND	0.0063	1	ND	0.0063	1
1,1-Dichloroethane	0.2	ND	0.0063		ND	0.006		ND	0.0063		ND	0.006		ND	0.0063		ND	0.0063	
1,1-Dichloroethene	0.4	ND	0.0063		ND	0.006		ND	0.0063		ND	0.006		ND	0.0063		ND	0.0063	<u> </u>
1,2,3-Trichloropropane	NS	NA			NA			NA			NA			NA	T		NA		
1,2,4-Trimethylbenzene	NS	NA			NA			NA			NA			NA	1		NA	<u> </u>	
1,2-Dichlorobenzene	7.9	NA			NA			NA			NA			NA			NA	-	
1,2-Dichloroethane	0.1	ND	0.0063		ND	0.006		ND	0.0063		ND	0.006		ND	0.0063	-	ND	0.0063	
1,2-Dichloropropane	NS	ND	0.0063		ND	0.006		ND	0.0063		ND	0.006		ND	0.0063		ND	0.0063	
1,3,5-Trimethylbenzene	NS	NA			NA			NA			NA			NA	1		NA NA	0.0003	
1,3-Dichlorobenzene	1.6	NA			NA			NA			NA		t	NA NA	 		NA NA	-	
1,3-Dichloropropane	NS	NA			NA			NA			NA	1		NA	 		NA NA	-	
1,4-Dichlorobenzene	8.5	NA			NA			NA			NA NA	†		NA NA			NA NA		
1,4-Dioxane	NS	NA			NA			NA			NA NA			NA NA			NA NA		
2-Butanone	0.3	ND	0.0063		ND	0.006		ND	0.0063	1	ND	0.006		ND	0.0063	-	ND ND	0.0063	
2-Chloroethylvinylether	NS	ND	0.0063		ND	0.006		ND	0.0063		ND	0.006		ND	0.0063		ND	0.0063	
2-Hexanone	NS	ND	0.0063		ND	0.006		ND	0.0063		ND	0.006		ND	0.0063	-			
4-Isopropyltoluene	NS	NA			NA			NA			NA	0.000		NA NA	0.0063		ND NA	0.0063	
4-Methyl-2-Pentanone	1	ND	0.0063		ND	0.006		ND	0.0063	-	ND	0.006		ND	0.0063				
Acetone	0.2	ND	0.031		ND	0.03		ND	0.032		ND	0.000		ND	0.0063		ND	0.0063	-
Acrolein	NS	ND	0.031		ND	0.03		ND	0.032		ND	0.03		-			ND	0.032	
Acrylonitrile	NS	ND	0.0063		ND	0.006		ND	0.0063		ND	0.006		ND	0.032		ND	0.032	
Benzene	0.06	ND	0.0013		ND	0.0012		ND	0.0013		ND	0.0012		ND	0.0063	-	ND	0.0063	
Bromodichloromethane	NS	ND	0.0063		ND	0.006		ND	0.0063		ND	0.0012		ND	0.0013		ND	0.0013	
Bromoform	NS	ND	0.0063		ND	0.006		ND	0.0063		ND ND	-		ND	0.0063		ND	0.0063	
Bromomethane	NS	ND	0.0063		ND	0.006		ND	0.0063		ND	0.006		ND	0.0063		ND	0.0063	
Carbon disulfide	2.7	ND	0.0063		ND	0.006		ND	0.0063		ND			ND	0.0063		ND	0.0063	
Carbon tetrachloride	0.6	ND	0.0063		ND	0.006		ND	0.0063		ND	0.006		ND	0.0063		ND	0.0063	
Chlorobenzene	1.7	ND	0.0063		ND	0.006		ND	0.0063		ND	0.006		ND	0.0063		ND	0.0063	
Chloroethane	1.9	ND	0.0063		ND	0.006		ND	0.0063		ND			ND	0.0063		ND	0.0063	
Chloroform	0.3	ND	0.0063		ND	0.006		ND	0.0063		ND	0.006		ND	0.0063		ND	0.0063	
Chloromethane	NS	ND	0.0063		ND	0.006		ND	0.0063		ND	0.006		ND	0.0063		ND	0.0063	
cis-1,2-Dichloroethene	NS	ND	0.0063		ND	0.006		ND	0.0063		ND	0.006		ND	0.0063		ND	0.0063	
cis-1,3-Dichloropropene	NS	ND	0.0063		ND	0.006		ND	0.0063					ND	0.0063		ND	0.0063	
Dibromochloromethane	NS	ND	0.0063		ND	0.006		ND	0.0063		ND ND	0.006		ND	0.0063		ND	0.0063	
Dichlorodifluoromethane	NS	NA			NA NA	5.500		NA	0.0003		NA NA	0.006		ND NA	0.0063		ND	0.0063	
Ethylbenzene	5.5	ND	0.0013		ND	0.0012	-	ND	0.0013		NA ND	0.0012			0.0010		NA	0.05:-	-
Isopropylbenzene	NS	NA			NA NA	00,2		NA	3.0013		NA NA	0.0012		ND	0.0013		ND	0.0013	
m&p-Xylenes	1.2	ND	0.0025		ND	0.0024		ND	0.0025		ND ND	0.0024		NA ND	0.0005		NA NO	2 2005	
Methylene chloride	0.1	0.036	0.0063	В	0.03	0.006	В	0.044	0.0023	В	0.05	0.0024	В	0.048	0.0025		ND 0.070	0.0025	
Methyl-t-butyl ether	NS	NA			NA	5.555		NA	0.0003		NA	0.000		0.048 NA	0.0063	В	0.078	0.0063	В
n-Butylbenzene	NS	NA NA			NA	+		NA NA	_		NA NA						NA NA		
n-Propylbenzene	NS	NA NA			NA NA			NA			NA NA			NA NA			NA NA		
o-Xylene	1.2	ND	0.0013		ND	0.0012		ND	0.0013		NA ND	0.0012		NA ND	0.0040		NA NO	0.05:-	
sec-Butylbenzene	NS	NA			NA			NA	5.0013		NA NA	0.0012		NA NA	0.0013		ND	0.0013	
Styrene	NS	ND	0.0063		ND	0.006	-	ND	0.0063		ND ND	0.006		NA ND	0.0063		NA	0.0000	
t-Butyl Alcohol	NS	NA NA			NA			NA NA	5.5555		NA NA	0.000		NA NA	0.0063		ND	0.0063	
t-Butylbenzene	NS	NA NA			NA	-+		NA NA			NA NA			-			NA NA		
Tetrachloroethene	1.4	ND	0.0063		ND	0.006		ND	0.0063		NA ND	0.006		NA ND	0.0000		NA ND	0.0555	
Toluene	1.5	ND	0.0013		ND	0.0012		ND	0.0003	***************************************	ND	0.0012			0.0063		ND	0.0063	
trans-1,2-Dichloroethene	0.3	ND	0.0063		ND	0.0012		ND	0.0013					ND	0.0013		ND	0.0013	
trans-1,3-dichloropropene	NS	ND	0.0063		ND	0.006		ND	0.0063		ND ND	0.006		ND	0.0063		ND	0.0063	
Trichloroethene	0.7	ND	0.0063		ND	0.006	+	ND	0.0063			0.006		ND	0.0063		ND	0.0063	
					NU	0.000		ND	6,0003		ND	0.006		ND	0.0063	- 1	ND	0.0063	
Trichlorofluoromethane				1	NA	- 1	1	N/A		1	NIA I		1				-		
Trichlorofluoromethane Vinyl chloride	NS	NA	0.0063		NA ND	0.006		NA ND	0.0000		NA ND	0.000		NA			NA		
Trichlorofluoromethane Vinyl chloride Total VOC TICs			0.0063	J	NA ND 0.012	0.006	J	NA ND 0.0628	0.0063	J	NA ND 0.0116	0.006	J	NA ND 0.0127	0.0063	J	NA ND 0.0046	0.0063	J

- 1) Bold concentrations in shaded cells exceed the RSCOs
- 2) Duplicate samples collected from SH-5D and TE-4D mg/Kg = milligrams per kilogram (all units reported in mg/Kg).
- RSCOs = Recommended Soil Cleanup Objectives from the Technical and Administrative Guidance Memorandum # 4046, dated January 24, 1994.
- NA = Not analyzed NS = No Standard
- Conc = Concentration
- MDL = Quantitation Limit
- Qual = Laboratory Data Qualifier
 ND = The compound was not detected
- B = The analyte was found in the laboratory blank and the sample. This indicates possible laboratory contamination of the sample.
- J = The compound was detected at a concentration below the calibration range. The concentration is estimated.

Feet bgs = Feet below ground surface TICs = Tentatively Identified compounds

Location		T	WA-12	-	T	WA-13		T	WA-14			14/4 45		·			·		***************************************
Sample ID		PI-2BV	/A12-1109	07SO04	PI-2BW	/A13-1108		PI-2RV	۷۷۶۹-۱2 VA14-1108		DI 2BM	WA-15 VA15-1107		DI OBV	VVA-16 VA16-110		DI ODI	WA-17	
Lab Sample No.	New York		34274-0			34275-0		t .	C34275-			C34160-			C34275-			VA17-1109	
Sampling Date	RSCOs		11/9/200			11/8/200			11/8/200			11/7/200			11/8/200			234274-	
Matrix		1	SOLID			SOLID			SOLID			SOLID	,,		SOLID		İ	11/9/200	
Sample Depth (feet bgs)		1	4.5-5		1	3-3.5			3-3.5		l	6-6.5			4.5-5		l	SOLID	*
Volatile Organic Compounds (\	/OCs)	Conc	MDL	Qual	Conc	MDL	Qual	Conc	MDL	Qual	Conc	MDL	Qual	Conc	MDL	Qual	Conc	1.5-2	Τ .
1,1,1-Trichloroethane	0.8	ND	0.0061		ND	0.0061		ND	0.0057	Quai	ND		Quai			Quai		MDL	Qua
1,1,1,2-Tetrachloroethane	NS	NA NA	0.0001		NA NA	0.0001		NA NA	0.0057	 	NA NA	0.0063		ND	0.044		ND	0.0062	
1,1,2,2-Tetrachloroethane	0.6	ND	0.0061		ND	0.0061		ND	0.0057	 	ND ND	0.0000		NA NA		-	NA	ļ	-
1,1,2-trichloro-1,2,2-trifluoroethane	6	ND	0.0061		ND	0.0061		ND	0.0057	-		0.0063		ND	0.044		ND	0.0062	-
1,1,2-Trichloroethane	NS	ND	0.0061		ND	0.0061		ND	0.0057		ND	0.0063		ND	0.044		ND	0.0062	
1,1-Dichloroethane	0.2	ND	0.0061		ND	0.0061					ND	0.0063		ND	0.044		ND	0.0062	
1,1-Dichloroethene	0.4	ND	0.0061		ND	0.0061		ND	0.0057		ND	0.0063		ND	0.044		ND	0.0062	
1,2,3-Trichloropropane	NS	ND	0.0061		ND	0.0061		ND ND	0.0057		ND	0.0063		ND	0.044		ND	0.0062	
1,2,4-Trimethylbenzene	NS	0.0013	0.0012		ND	0.0001		ND	0.0057	-	ND	0.0063		ND	0.044		ND	0.0062	
1,2-Dichlorobenzene	7.9	ND	0.0061		ND	0.0012		ND	0.0011	<u> </u>	0.0018	0.0013		ND	0.0088		0.0018	0.0012	ļ
1,2-Dichloroethane	0.1	ND	0.0061		ND	0.0061					ND	0.0063		ND	0.044		ND	0.0062	ļ
1,2-Dichloropropane	NS NS	ND	0.0061		ND			ND	0.0057	-	ND	0.0063		ND	0.044		ND	0.0062	
1,3,5-Trimethylbenzene	NS	ND	0.0001		ND	0.0061		ND	0.0057		ND	0.0063		ND	0.044		ND	0.0062	
1,3-Dichlorobenzene	1.6	ND	0.0012		ND			ND	0.0011	 	0.0017	0.0013	-	0.011	0.0088	-	ND	0.0012	
1,3-Dichloropropane	NS	ND	0.0061		ND	0.0061		ND	0.0057		ND	0.0063		ND	0.044		ND	0.0062	
1,4-Dichlorobenzene	8.5	ND ND	0.0061		ND ND			ND	0.0057		ND	0.0063		ND	0.044		ND	0.0062	
1,4-Dioxane	NS	ND	0.0001		ND	0.0061		ND	0.0057		ND	0.0063	-	ND	0.044		ND	0.0062	
2-Butanone	0.3	ND	0.0061		ND	0.3 0.0061		ND	0.29	-	ND	0.31		ND	2.2		ND	0.31	
2-Chloroethylvinylether	NS	ND	0.0061		ND	0.0061		ND ND	0.0057		ND	0.0063		ND	0.044		ND	0.0062	
2-Hexanone	NS	ND	0.0061		ND	0.0061			0.0057		ND	0.0063		ND	0.044		ND	0.0062	
4-Isopropyltoluene	NS	ND	0.0001					ND	0.0057		ND	0.0063		ND	0.044		ND	0.0062	
4-Methyl-2-Pentanone	1		0.0012		ND	0.0012		ND	0.0011		ND	0.0013		ND	0.0088		ND	0.0012	
Acetone	0.2	ND 0.019			ND	0.0061		ND	0.0057		ND	0.0063		ND	0.044		ND	0.0062	
Acrolein			0.03	J	ND	0.03		ND	0.029		0.048	0.031		0.18	0.22	J	ND	0.031	
Acrylonitrile	NS NS	ND ND	0.03		ND	0.03		ND	0.029		ND	0.031		ND	0.22		ND	0.031	
Benzene	0.06				ND	0.0061		ND	0.0057		ND	0.0063		ND	0.044		ND	0.0062	
Bromodichloromethane	NS	ND ND	0.0012		ND	0.0012		ND	0.0011		ND	0.0013		ND	0.0088		ND	0.0012	
Bromoform	NS NS	ND	0.0061		ND	0.0061		ND	0.0057		ND	0.0063		ND	0.044		ND	0.0062	
			0.0061		ND	0.0061		ND	0.0057		ND	0.0063		ND	0.044		ND	0.0062	
Bromomethane Carbon disulfide	NS 2.7	ND ND	0.0061		ND	0.0061		ND	0.0057		ND	0.0063		ND	0.044		ND	0.0062	
			0.0061		ND	0.0061		ND	0.0057		ND	0.0063		ND	0.044		ND	0.0062	
Carbon tetrachloride Chlorobenzene	0.6	ND	0.0061		ND	0.0061		ND	0.0057		ND	0.0063		ND	0.044		ND	0.0062	
Chloroethane	1.7	ND	0.0061		ND	0.0061		ND	0.0057		ND	0.0063		ND	0.044		ND	0.0062	
	1.9	ND	0.0061		ND	0.0061		ND	0.0057		ND	0.0063		ND	0.044		ND	0.0062	
Chloroform Chloromethane	0.3 NS	ND	0.0061		ND	0.0061		ND	0.0057		ND	0.0063		ND	0.044		ND	0,0062	
		ND	0.0061		ND	0.0061		ND	0.0057		ND	0.0063		ND	0.044		ND	0.0062	
cis-1,2-Dichloroethene	NS	ND	0.0061		ND	0.0061		ND	0.0057		ND	0.0063		ND	0.044		ND	0.0062	
cis-1,3-Dichloropropene Dibromochloromethane	NS NS	ND ND	0.0061		ND	0.0061		ND	0.0057		ND	0.0063		ND	0.044		ND	0.0062	
	NS	ND ND	0.0061		ND	0.0061		ND	0.0057		ND	0.0063		ND	0.044		ND	0.0062	
Dichlorodifluoromethane	NS E E	ND	0.0061		ND	0.0061		ND	0.0057		ND	0.0063		ND	0.044		ND	0.0062	
Ethylbenzene	5.5	ND	0.0012		ND	0.0012		ND	0.0011		ND	0.0013		ND	0.0088		ND	0.0012	
Isopropylbenzene	NS 12	ND	0.0012		ND	0.0012		ND	0.0011		ND	0.0013		ND	0.0088		ND	0.0012	
m&p-Xylenes Methylene chloride	1.2 0.1	ND 0.018	0.0024		ND	0.0024		ND	0.0023		ND	0.0025		ND	0.018		ND	0.0025	
	NS NS	0.018 ND	0.0061	В	0.02	0.0061	В	0.031	0.0057	В	0.083	0.0063	В	0.2	0.044	В	0.028	0.0062	В
Methyl-t-butyl ether n-Butylbenzene			0.0012		ND	0.0012		ND	0.0011		ND	0.0013		ND	0.0088		ND	0.0012	
	NS NS	ND	0.0012		ND	0.0012		ND	0.0011		ND	0.0013		ND	0.0088		ND	0.0012	
n-Propylbenzene o-Xylene	NS 1.2	ND ND	0.0012		ND	0.0012		ND	0.0011		ND	0.0013		ND	0.0088		ND	0.0012	
					ND	0.0012		ND	0.0011		ND	0.0013		ND	0.0088		ND	0.0012	:
sec-Butylbenzene Styrene	NS NE	ND	0.0012		ND	0.0012		ND	0.0011		ND	0.0013		ND	0.0088		ND	0.0012	
	NS NS	ND	0.0061		ND	0.0061		ND	0.0057		ND	0.0063		ND	0.044		ND	0.0062	
t-Butyl Alcohol	NS NS	ND	0.03		ND	0.03		ND	0.029		ND	0.031		ND	0.22		ND	0.031	
t-Butylbenzene	NS .	ND	0.0012		ND	0.0012		ND	0.0011		ND	0.0013		ND	0.0088		ND	0.0012	
Tetrachloroethene	1.4	ND	0.0061		ND	0.0061		ND	0.0057		ND	0.0063		ND	0.044		ND	0.0062	
Toluene	1.5	ND	0.0012		ND	0.0012		ND	0.0011		ND	0.0013		ND	0.0088		ND	0.0012	
trans-1,2-Dichloroethene	0.3	ND	0.0061		ND	0.0061		ND	0.0057		ND	0.0063		ND	0.044		ND	0.0062	
trans-1,3-dichloropropene	NS	ND	0.0061		ND	0.0061		ND	0.0057		ND	0.0063		ND	0.044		ND	0.0062	
Trichloroethene	0.7	ND	0.0061		ND	0.0061		ND	0.0057		ND	0.0063		ND	0.044	I	ND	0.0062	
Trichlorofluoromethane	NS	ND	0.0061		ND	0.0061		ND	0.0057		ND	0.0063		ND	0.044		ND	0.0062	
Vinyl chloride	0.2	ND	0.0061	-, 	ND ND	0.0061		ND	0.0057		ND	0.0063		ND	0.044		ND	0.0062	
Total VOC TICs	NS	0.011						ND			0.0303		J	8.84					

Notes and Abbreviations

- Bold concentrations in shaded cells exceed the
- 2) Duplicate samples collected from SH-5D and TE-4D mg/Kg = milligrams per kilogram (all units reported in mg/Kg).

RSCOs = Recommended Soil Cleanup Objectives from the Technical and Administrative Guidance Memorandum # 4046, dated January 24, 1994.

NA = Not analyzed NS = No Standard

Conc = Concentration

MDL = Quantitation Limit

Qual = Laboratory Data Qualifier

ND = The compound was not detected

- B = The analyte was found in the laboratory blank and the sample. This indicates possible laboratory contamination of the sample.
- J = The compound was detected at a concentration below the calibration range. The concentration is estimated.

Feet bgs = Feet below ground surface TICs = Tentatively identified compounds

Page Page		7		***************************************				SILE	- 2											
Passes-1-transprotocy Pass	Location							SH-3		1	SH-4		T	SH-5		Γ	SH-5D			
ACM-14-15-15-15-15-15-15-15-15-15-15-15-15-15-									PI-2B	SH-3-1120	007SO04	PI-2BS	H04-1109	07SO03	PI-2BS		07SO03	PI-2BS		075002
Sample Compounds (VOCs)		1							A	C34438-	-003	A	C34274-	002						
Secretary Secr		RSCOs			7	1		07	1	11/20/20	07		11/9/200	07	1	11/9/200	17			
Seminary components VOCD Cont Aug. Cont MOL Cont MOL Cont MOL Cont MOL Cont MOL Cont		1							l	SOLIC)		SOLID			SOLID		'		
		1	 	~~~									4.5-5			3.5-4				
1.5.1-Sir-Inschoebers			Conc	MDL	Qual	Conc	MDL	Qual	Conc	MDL	Qual	Conc	MDL	Qual	Conc	MDL	Qual	Conc		Qual
13.12 Transcharborehime			ND	0.0061		ND	0.0064		ND	0.0058		ND	0.006	T	ND	0.0057		ND		
1.12-25 informational			NA			NA			NA			NA							0.000	
1.2 Edition 2.2 edition			ND	0.0061		ND	0.0064		ND	0.0058		ND	0.006			0.0057			0.006	
11.2 Felichiertentense NS NS NS 0.0091 NS 0.0091 NS 0.0091 NS 0.0092 NS 0.0097 NS 0.0091 NS 0.0091 NS 0.0097 NS 0.0091 NS 0.00		6	ND	0.0061		ND	0.0064		ND	0.0058		ND	0.006							
1.0 Delicerementary 0.4 Mo 0.0061 Mo 0.0064 Mo 0.0068 MO 0.006 Mo 0.0067 M			ND	0.0061		ND	0.0064		ND	0.0058		ND								
11-2-Printengrepare		0.2	ND	0.0061		ND	0.0064		ND	0.0058		ND								
1,2,3 Technogrogopes		0.4	ND	0.0061		ND	0.0064		ND	0.0058		ND	0.006							
1.2. Fire-deptherane			ND	0.0061		ND	0.0064		ND	0.0058		ND	0.006		-					
1.2-Definitionhamme		NS .	0.0023	0.0061	J	ND	0.0013		ND	0.0012		0.0015	0.006	J						-
1.2-Delinecomberses			-	0.0061		ND	0.0064		ND	0.0058		ND	0.006							
1.2-Definitions						ND	0.0064		ND	0.0058		ND	0.006							
13.5 Triestophymerem NS NO 0.0011 NO 0.0012 NO 0.0001 NO 0.0011 NO 0.0012			ND	0.0061		ND	0.0064		ND	0.0058		ND	0.006		ND	-				
1-2-Dischioresperies			_	0.0061		ND	0.0013		ND	0.0012		ND	0.006							
1.3 Definitions							0.0064		ND	0.0058		ND								
1.4-Chickrobersame						ND	0.0064		ND	0.0058										
1.4-Diazone NS ND 0.5 ND 0.5 ND 0.3 ND 0.20 ND 0.3 ND 0.20 ND 0.3 ND 0.00 ND			***************************************			ND	0.0064		ND	0.0058		ND								
2-Discreptive prime			ND	0.3		ND	0.32		ND	0.29		ND	0.3							
Page Page			ND	0.0061		ND	0.0064		ND	0.0058		ND	0.006		-					
Price NS			ND	0.0061		ND	0.0064		ND	0.0058		ND	0.006							
Hebrographilatione			ND	0.0061		ND	0.0064		ND	0.0058		ND	0.006			-				
Medinyl-2-Periannen		NS	ND	0.0061		ND	0.0013		ND	0.0012		ND	0.006					-		
Acarolem		1	ND	0.0061		ND	0.0064		ND	0.0058		ND	0.006							
Acrolenin			0.17	0.03		0.028	0.032	J	0.027	0.029	J	0.14	0.03		-					
Acytochide		NS	ND	0.03		ND	0.032		ND	0.029		ND						-		
Benzene			_	0.0061		ND	0.0064		ND	0.0058		ND	0.006						-	
Bromote/Income/Brane NS NO 0.0061 ND 0.0064 ND 0.0065 ND 0.0067 ND 0.0068 ND 0.0067 ND 0.0068		0.06	ND	0.0061		ND	0.0013		ND	0.0012		ND	0.006							
Bromondom		NS	ND	0.0061		ND	0.0064		ND	0.0058		ND	0.006			environment -				
Bromomethane	Bromoform	NS	ND	0.0061		ND	0.0064		ND	0.0058		ND	0.006							-
Carbon televided 2.7				0.0061		ND	0.0064		ND	0.0058		ND	0.006							
Carbon tetrachloride			0.005	0.0061	J	ND	0.0064		ND	0.0058		0.0047	0.006	J						
Chioropename			-			ND	0.0064		ND	0.0058		ND	0.006		ND	0.0057				
Chiloroteshane				0.0061		ND	0.0064		ND	0.0058		ND	0.006		ND					******
Chlorordorm				0.0061		ND	0.0064		ND	0.0058		ND	0.006		ND	0.0057				
Chloromethane				0.0061		ND	0.0064		ND	0.0058		ND	0.006		ND					
36-12-Dichloroethere NS ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.0066						ND	0.0064		ND	0.0058		ND	0.006		ND	0.0057				
Cist-13-Dichloropropene NS ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006				0.0061		ND	0.0064		ND	0.0058		ND	0.006		ND	0.0057		ND		
Dibromochloromethane			-			-			ND	0.0058		ND	0.006					*************		
Dichlorodifluoromethane			-				0.0064		ND	0.0058		ND	0.006							
Ethylbenzene 5.5 ND 0.0061 ND 0.0013 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012 ND 0.0012 ND 0.0023 ND 0.012 ND 0.0023 ND 0.0023 ND 0.0023 ND 0.0023 ND 0.0023 ND 0.0023 ND 0.0023 ND 0.0023 ND 0.0023 ND 0.0023 ND 0.0023 ND 0.0023 ND 0.0023 ND 0.0023 ND 0.0023 ND 0.0023 ND 0.0023 ND 0.0023 ND 0.0024 ND 0.0023 ND 0.0024 ND 0.0023 ND 0.0024 ND 0.0068 ND 0.0011 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012 ND 0.0024 ND 0.0024 ND 0.0011 ND 0.0012 ND 0.0024 ND 0.0011 ND 0.0012 ND 0.0024 ND 0.0011 ND 0.0012 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012 ND 0.0012 ND 0.006 ND 0.0057 ND 0.006 ND 0.0011 ND 0.0012 ND 0.0012 ND 0.006 ND 0.0057 ND 0.006 ND 0.0057 ND 0.006 ND 0.0057 ND 0.006 ND 0.0057 ND 0.006 ND 0.0057 ND 0.006 ND 0.0057 ND 0.006 ND 0.0057 ND 0.006 ND 0.0057 ND 0.006 ND 0.0057 ND 0.006 ND 0.006 ND 0.0057 ND 0.006 ND 0.006 ND 0.0057 ND 0.006 ND 0.006 ND 0.0057 ND 0.006 ND 0.006 ND 0.0057 ND 0.006 ND 0.006 ND 0.0057 ND 0.006 ND 0.006 ND 0.0057 ND 0.006 ND 0.006 ND 0.0057 ND 0.006 ND 0.006 ND 0.0057 ND 0.006 ND 0.006 ND 0.0057 ND 0.006 ND 0.006 ND 0.0057 ND 0.006 ND 0.006 ND 0.0057 ND 0.006 ND 0.006 ND 0.0057 ND 0.006 ND 0.006 ND 0.0057 ND 0.006 ND 0.006 ND 0.0057 ND 0.006 ND 0.006 ND 0.0057 ND 0.006 ND 0.006 ND 0.0057 ND 0.006 ND 0.006 ND 0.0057 ND 0.006 ND 0.006 N										0.0058		ND	0.006		ND					
Sopropylenzene NS ND 0.0061 ND 0.0012 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012 ND 0.0012 ND 0.0023 ND 0.0024 ND 0.				-					ND	0.0012		ND	0.006		ND	0.0011				
m8p-Xylenes										0.0012		ND	0.006		ND					
Methyl-buyl ether NS ND 0.0061 ND 0.0064 ND 0.0068 ND 0.0061 ND 0.0067 ND 0.0061 ND						ND	0.0026		ND	0.0023		ND	0.012		ND	0.0023				
Methyl-butylebraene NS ND 0.0061 ND 0.0013 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012				0.0061	В	0.031	0.0064	В	0.016	0.0058	В	0.14	0.006	В	0.0068	0.0057	В	0.012		В
n-Butylpenzene NS ND 0.0061 ND 0.0013 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012 ND 0.0014 ND 0.0012 ND 0.0014 ND 0.0011 ND 0.0012 ND 0.0014 ND 0.0014 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012 ND 0.0014 ND 0.0012 ND 0.0014 ND 0.0014 ND 0.0012 ND 0.0014 ND 0.0014 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012 ND 0.0014 ND 0.0014 ND 0.0012 ND 0.006 ND 0.0014 ND 0.0012 ND 0.0014 ND			-	0.0061		ND	0.0013		ND	0.0012		ND	0.006			0.0011				
n-Proptbenzene NS ND 0.0061 ND 0.0013 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012 Sec-Butylbenzene NS ND 0.0061 ND 0.0061 ND 0.0013 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012 Styrene NS ND 0.0061 ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006 ND 0.0057 ND 0.006 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006 ND 0.0058 ND 0.006 ND 0.0058 ND 0.0057 ND 0.0058 ND 0.0057 ND 0.0058 ND 0.0057 ND 0.0058 ND 0.0057 ND 0.0068 ND 0.0057 ND 0.0068 ND 0.0058 ND 0.0068 ND 0.0057 ND 0.0068 ND 0.0058 ND 0.0068 ND 0.0057 ND 0.0068 ND 0.0058 ND 0.0068 ND 0.0057 ND 0.0068 ND 0.0058 ND 0.0058 ND 0.0058 ND 0.0057 ND 0.0068 ND 0.0058 ND 0.0058 ND 0.0058 ND 0.0057 ND 0.0068 ND 0.0057 ND 0.0068 ND 0.0058 ND 0.0058 ND 0.0058 ND 0.0057 ND 0.0068 ND 0.0057 ND 0.0068 ND 0.0058 ND 0.0058 ND 0.0058 ND 0.0057 ND 0.0068 ND 0.0057 ND 0.0068 ND 0.0058 ND 0.0068 ND 0.0057 ND 0.0068 ND 0.0058 ND 0.0058 ND 0.0058 ND 0.0057 ND 0.0068 ND 0.0057 ND 0.0068 ND 0.0058 ND 0.0058 ND 0.0058 ND 0.0057 ND 0.0068 ND 0.0057 ND 0.0068 ND 0.0058 ND 0.0058 ND 0.0058 ND 0.0057 ND 0.0068 ND 0.0057 ND 0.0068 ND 0.0058 ND 0.0058 ND 0.0058 ND 0.0057 ND 0.0068 ND 0.0057 ND 0.0068 ND 0.0058 ND 0.0058 ND 0.0058 ND 0.0057 ND 0.0068 ND 0.0057 ND 0.0068 ND 0.0058 ND 0.0058 ND 0.0058 ND 0.0057 ND 0.0068 ND 0.0058 ND 0.0058 ND 0.0058 ND 0.0057 ND 0.0068 ND 0.0058 ND 0.0057 ND 0.0068 ND 0.0058 ND 0.0058 ND 0.0058 ND 0.0057 ND 0.0068 ND 0.0058 ND 0.0058 ND 0.0058 ND 0.0057 ND 0.0068 ND 0.0058 ND 0.0058 ND 0.0058 ND 0.0058 ND 0.0057 ND 0.0068 ND 0.0058 ND 0.0058 ND 0.0058 ND 0.0057 ND 0.0068 ND 0.0058 ND 0.0058 ND 0.0058 ND 0.0058 ND 0.0057 ND 0.0068 ND 0.0058 ND 0.0058 ND 0.0058 ND 0.0058 ND 0.0058 ND 0.0058 ND 0.0058 ND 0.0058 ND 0.0058 ND 0.0058 ND 0.0058 ND 0.00				0.0061		ND	0.0013		ND	0.0012		ND	0.006		ND	0.0011				
0-Xylene						ND	0.0013		ND	0.0012		ND	0.006		ND	0.0011		ND	0.0012	
NS ND 0.0061 ND 0.0013 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012				0.0061		ND	0.0013		ND	0.0012		ND	0.006		ND	0.0011			-	
Styrene NS ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006				0.0061		ND	0.0013		ND	0.0012		ND	0.006		ND	0.0011				
Hebly/benzene NS ND 0.0061 ND 0.0013 ND 0.0012 ND 0.0066 ND 0.0011 ND 0.0012 Tetrachloroethene 1.4 ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006 Toluene 1.5 ND 0.0061 ND 0.0061 ND 0.0013 ND 0.0012 ND 0.0066 ND 0.0057 ND 0.006 Tans-1,2-Dichloroethene 0.3 ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0011 ND 0.0012 Trans-1,3-dichloropropene NS ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006 Trichloroethene 0.7 ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006 Trichloroethene NS ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006 Trichloroethene NS ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006 Trichlorofluoromethane NS ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006 Trichlorofluoromethane NS ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006						ND	0.0064		ND	0.0058		ND	0.006		ND	0.0057		ND		
Febrush NS ND 0.0061 ND 0.0013 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012						ND	0.032		ND	0.029		0.011	0.03	J	ND					
Tetrachloroethene									ND	0.0012		ND	0.006		ND					
Toluene 1.5 ND 0.0061 ND 0.0013 ND 0.0012 ND 0.006 ND 0.0011 ND 0.0012 trans-1,2-Dichloroethene 0.3 ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006 Trans-1,3-dichloropropene NS ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006 Trichloroethene 0.7 ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006 Trichloroethene NS ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006 Trichlorofluoromethane NS ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006 Virily choicide 0.2 ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006 Virily choicide 0.2 ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006						ND	0.0064	I	ND	0.0058		ND	0.006		-					
trans-13-Dichloroethene 0.3 ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006 trans-13-dichloropropene NS ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006 Trichloroethene 0.7 ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006 Trichloroffluoromethane NS ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006 Virty choride 0.2 ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006 Virty choride 0.2 ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006	The state of the s					ND	0.0013		ND	0.0012		ND	0.006						_	
trans-1,3-dichloropropene NS ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006 Trichloroptene 0.7 ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006 Trichloroptioropethane NS ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006 Vinyl chloride 0.2 ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006 Vinyl chloride 0.2 ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006			ND			ND	0.0064	T	ND	0.0058		ND	0.006							
Trichloroethene 0.7 ND 0.0861 ND 0.0964 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006 Trichlorofluoromethane NS ND 0.0081 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006 Vinyl chloride 0.2 ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006						ND	0.0064		ND	0.0058		ND	0.006							
Trichlorofluoromethane NS ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006 Viryl chloride 0.2 ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006							0.0064		ND	0.0058		ND	0.006			-				
Viryl chloride 0.2 ND 0.0061 ND 0.0064 ND 0.0058 ND 0.006 ND 0.0057 ND 0.006						ND	0.0064	T	ND	0.0058		ND	0.006							1
				0.0061		ND	0.0064		ND	0.0058		ND	0.006							
Total VOC TICs NS 0.3229 J 0.012 J 0.0288 J 0.2407 J ND J 0.0041 Notes and Abbreviations	Total VOC TICs	NS	0.3229		J	0.012		J	0.0288		J	0.2407		J			J			J

- Bold concentrations in shaded cells exceed the RSCOs
- Duplicate samples collected from SH-5D and TE-4D mg/Kg = milligrams per kilogram (all units reported in mg/Kg).
- RSCOs = Recommended Soll Cleanup Objectives from the Technical and Administrative Guidance Memorandum # 4046, dated January 24, 1994.

NA = Not analyzed NS = No Standard

Conc = Concentration

MDL = Quantitation Limit

Qual = Laboratory Data Qualifier

- ND = The compound was not detected

) = The analyte was found in the laboratory blank and
- 1 = The analyte was found in the laboratory blank and the sample. This indicates possible laboratory contamination of the sample.
- J = The compound was detected at a concentration below the calibration range. The concentration is estimated.

Feet bgs = Feet below ground surface TICs = Tentatively identified compounds



Location	1	T	SH-6		T	SH-7		T	SH-8			SH-9			CLL 40	-	Т		-
Sample ID		PI-2B	SH06-1109	078004	PI-2BS	SH07-1109	078002	PI-2B	SH-8-1115	5075003	PI-2RS	SH09-1112	075003	DI 2D	SH-10 SH10-111		DI OD	SH-11	
Lab Sample No.	New York	A	C34274-	004	l A	C34274-	005	1	C34394			C34274-						SH11-111:	
Sampling Date	RSCOs]	11/9/200	7		11/9/200		1	11/15/20			1/12/20		1	C34355		,	C34289	
Matrix		1	SOLID		1	SOLID		l	SOLID		1			1	11/14/20		· ·	11/13/20	
Sample Depth (feet bgs)	1	1	5-5.5		1	3.5-4				,	1	SOLID	1	1	SOLIE)		SOLIE)
Volatile Organic Compounds (VOCs)	Conc	MDL	Qual	Conc	MDL	Qual	Conc	4.5-5	10.	 	5-5.5			6-6.5			4-4.5	
1,1,1-Trichloroethane	0.8	ND		Quai			Quai		_	Qual	Conc	MDL	Qual	Conc	MDL	Qual	Conc	MDL	Qu
1,1,1,2-Tetrachloroethane			0.0058		ND	0.006	-	ND	0.0059		ND	0.0061		ND	0.006		ND	0.006	
1,1,2,2-Tetrachloroethane	NS	NA	1		NA NA	-		NA.			NA			NA			NA		
	0.6	ND	0.0058		ND	0.006		ND	0.0059		ND	0.0061		ND	0.006		ND	0.006	1
1,1,2-trichloro-1,2,2-trifluoroethane	6	ND	0.0058		ND	0.006		ND	0.0059	1	ND	0.0061		ND	0.006		ND	0.006	1-
1,1,2-Trichloroethane	NS	ND-	0.0058		ND	0.006		ND	0.0059		ND	0.0061		ND	0.006	1	ND	0.006	-
1,1-Dichloroethane	0.2	ND	0.0058		ND	0.006		ND	0.0059		ND	0.0061		ND	0.006		ND	0.006	-
1,1-Dichloroethene	0.4	ND	0.0058		ND	0.006		· ND	0.0059		ND	0.0061	1	ND	0.006		ND	-	+
1,2,3-Trichloropropane	NS	ND	0.0058		ND	0.006		ND	0.0059		ND	0.0061		ND	0.006		ND	0.006	┼
1,2,4-Trimethylbenzene	NS	0.0021	0.0012		0.0019	0.006	J	ND	0.0012		ND	0.0012		ND	0.0012	-		0.006	
1,2-Dichlorobenzene	7.9	ND	0.0058		ND	0.006		ND	0.0059		ND	0.0061		_	-		0.0018	0.0012	<u> </u>
1,2-Dichloroethane	0.1	ND	0.0058		ND	0.006		ND	0.0059	1	ND			ND	0.006	-	ND	0.006	
1,2-Dichloropropane	NS	ND	0.0058		ND	0.006		ND	0.0059	 		0.0061		ND	0.006	-	ND	0.006	
1,3,5-Trimethylbenzene	NS	ND	0.0012		ND	0.006					ND	0.0061		ND	0.006		ND	0.006	
1,3-Dichlorobenzene	1.6	ND	0.0012		ND			ND	0.0012	-	ND	0.0012	-	ND	0.0012		ND	0.0012	
1,3-Dichloropropane	NS NS	ND				0.006		ND	0.0059	ļ	ND	0.0061		ND	0.006		ND	0.006	
1,4-Dichlorobenzene			0.0058		ND	0.006		ND	0.0059	1	ND	0.0061		ND	0.006		ND	0.006	
1,4-Dioxane	8.5	ND	0.0058		ND	0.006		ND	0.0059		ND	0.0061		ND	0.006		ND	0.006	
	NS	ND	0.29		ND	0.3		ND	0.29		ND	0.3		ND	0.3		ND	0.3	
2-Butanone	0.3	ND	0.0058		0.026	0.006		ND	0.0059		ND	0.0061		ND	0.006		0.018	0.006	ļ
2-Chloroethylvinylether	NS	ND	0.0058		ND	0.006		ND	0.0059		ND	0.0061		ND	0.006		ND	0.006	
2-Hexanone	NS	ND	0.0058		ND	0.006		ND	0.0059		ND	0.0061		ND	0.006		ND	0.006	-
4-Isopropyltoluene	NS	ND	0.0012		ND	0.006		ND	0.0012		ND	0.0012		ND	0.0012				
4-Methyl-2-Pentanone	1	ND	0.0058		ND	0.006		ND	0.0059		ND	0.0061		ND	0.006		ND	0.0012	-
Acetone	0.2	ND	0.029		0.31	0.03		ND	0.029		0.032	0.03		-			ND	0.006	
Acrolein	NS	ND	0.029		ND	0.03		ND	0.029		ND	0.03		0.055	0.03		0.12	0.03	
Acrylonitrile	NS	ND	0.0058		ND	0.006		ND	0.0059		ND			ND	0.03		ND	0.03	
Benzene	0.06	ND	0.0012		ND	0.006		ND	0.0039	-	~~~	0.0061		ND	0.006		ND	0.006	
Bromodichloromethane	NS	ND	0.0058		ND	0.006			-		ND	0.0012		ND	0.0012		ND	0.0012	
Bromoform	NS	ND	0.0058		ND	0.006		ND	0.0059		ND	0.0061		ND	0.006		ND	0.006	
Bromomethane	NS	ND	0.0058		ND			ND	0.0059		ND	0.0061		ND	0.006		ND	0.006	
Carbon disulfide	2.7	0.0014	0.0058	J		0.006		ND	0.0059		ND	0.0061		ND	0.006		ND	0.006	
Carbon tetrachloride	0.6	ND			0.012	0.006		ND	0.0059		ND	0.0061		ND	0.006		0.0012	0.006	J
Chlorobenzene		-	0,0058		ND	0.006		ND	0.0059		ND	0.0061		ND	0.006		ND	0.006	
Chloroethane	1.7	ND	0.0058		ND	0.006		ND	0.0059		ND	0.0061		ND	0.006		ND	0.006	************
	1.9	ND	0.0058		ND	0.006		ND	0.0059		ND	0.0061		ND	0.006		ND.	0.006	
Chloroform	0.3	ND	0.0058		ND	0.006		ND	0.0059		ND	0.0061		ND	0.006		ND	0.006	
Chloromethane	NS	ND	0,0058		ND	0.006		ND	0.0059		ND	0.0061		ND	0.006		ND	0.006	
is-1,2-Dichloroethene	NS	ND	0.0058		ND	0.006		ND	0.0059		ND	0.0061	-	ND	0.006		ND	0.006	
ls-1,3-Dichloropropene	NS	ND	0.0058		ND	0.006		ND	0.0059		ND	0.0061		ND	0.006		ND		
Dibromochloromethane	NS	ND	0.0058		ND	0.006		ŇD	0.0059		ND	0.0061		ND	0.006		ND	0.006	
lichlorodifluoromethane	NS	ND	0.0058		ND	0.006		ND	0.0059		ND	0.0061		ND	0.006			0.006	
thylbenzene	5.5	ND	0.0012		ND	0.006		ND	0.0012		ND	0.0012		ND			ND	0.006	
opropylbenzene	NS	ND	0.0012		ND	0.006		ND	0.0012		ND				0.0012		ND	0.0012	
n&p-Xylenes	1.2	ND	0.0023		ND	0.012		ND	0.0012		-	0.0012		ND	0.0012		ND	0.0012	
lethylene chloride	0.1	0.035	0.0028	В	0.12	0.006	В	0.062	0.0024		ND	0.0024		ND	0.0024		ND	0.0024	
lethyl-t-butyl ether	NS NS	ND	0.0012	- D	A REAL PROPERTY.		В	-		В	0.015	0.0061	В	0.017	0.006	В	0.039	0.006	В
-Butylbenzene	NS NS	ND			ND	0.006		ND	0.0012		ND	0.0012		ND	0.0012		ND	0.0012	
-Propylbenzene			0.0012		ND	0.006		ND	0.0012		ND	0.0012		ND	0.0012		ND	0.0012	
	NS A S	ND	0.0012		ND	0.006		ND	0.0012		ND	0.0012		ND	0.0012		ND	0.0012	
	1.2	ND	0.0012		ND	0.006		ND	0.0012		ND	0.0012		ND	0.0012		ND	0.0012	
ec-Butylbenzene	NS	ND	0.0012		ND	0.006		ND	0.0012		ND	0.0012		ND	0.0012		ND	0.0012	
tyrene	NS	ND	0.0058		ND	0.006		ND	0.0059	T	ND	0.0061		ND	0.006		ND	0.006	
Butyl Alcohol	NS	ND	0.029		ND	0.03		ND	0.029		ND	0.03		ND	0.03		ND	0.03	
Butylbenzene	NS	ND	0.0012		ND	0.006		ND	0.0012		ND	0.0012	- 1	ND	0.0012		ND	0.0012	
etrachloroethene	1.4	ND	0.0058		ND	0.006		ND	0.0059		ND	0.0061		ND	0.006		ND	0.0012	
oluene	1.5	ND	0.0012		ND	0.006		ND	0.0012			0.0012		ND	0.0012				
ans-1,2-Dichloroethene	0.3	ND	0.0058		ND	0.006		ND	0.0059			0.0012		-			ND	0.0012	
ans-1,3-dichloropropene	NS	ND	0.0058		ND	0.006		ND	0.0059					ND	0.006		ND	0.006	
ichloroethene	0.7	ND	0.0058		ND	0.006		ND				0.0061		ND	0.006		ND	0.006	
ichlorofluoromethane	NS	ND	0.0058		ND				0.0059			0.0061		ND	0.006		ND	0.006	
nyl chloride	0.2	ND		-	-	0.006		ND	0.0059			0.0061		ND	0.006	L	ND	0.006	
otal VOC TICs			0.0058		ND	0.006		ND	0.0059			0.0061		ND	0.006		ND	0.006	
otes and Abbreviations	NS	0.0092		J	0.2754		J	0.0059	William Fra	J	0.0238		J	0.011		J	0.0052		J

- Bold concentrations in shaded cells exceed the RSCOs
- Duplicate samples collected from SH-5D and TE-4D mg/Kg = milligrams per kilogram (all units reported in mg/Kg).
- RSCOs = Recommended Soil Cleanup Objectives from the Technical and Administrative Guidance Memorandum # 4046, dated January 24, 1994.
- NA = Not analyzed NS = No Standard
- Conc = Concentration
- MDL = Quantitation Limit
- Qual = Laboratory Data Qualifier
- ND = The compound was not detected
- The analyte was found in the laboratory blank and the sample. This indicates possible laboratory contamination of the sample.
- J = The compound was detected at a concentration below the calibration range. The concentration is estimated.
- Feet bgs = Feet below ground surface TICs = Tentatively identified compounds

			SH-12	-	орияния														
Location Sample ID	mple ID Sample No. New York					TE-2			TE-3		T	TE-4		T	TE-4D)	T	TE-5	
Lab Sample No.	New York		SH12-1112 C34394-		1	STE-2-1109			TE-3-1114			TE-4-1112			E-4D-111		PI-2B	TE-5-1115	507500
Sampling Date	RSCOs		11/12/20		A	C34394- 11/9/200			C34394		1	C34394			C34394		A	C34394	-010
Matrix	1,0003		SOLID	07	l	SOLID	17		11/14/20		1	11/16/20			11/16/20			11/16/20	007
Sample Depth (feet bgs)		ı	4.5-5			4.5-5			SOLID	•	1	SOLID	1	1	SOLID)	l	SOLIE)
Volatile Organic Compounds (VOCs)	Conc		Qual	Conc	MDL	Qual	Conc	4.5-5	10.1	 	6-6.5			6-6.5			6.5-7	
1,1,1-Trichloroethane	0.8	ND	0.0059	Quai	ND	0.0058	Quai		MDL	Qual	Conc		Qual	Conc	MDL	Qual	Conc	MDL	Qu
1,1,1,2-Tetrachloroethane	NS NS	NA NA	0.0059		NA NA	0.0058		ND	0.0058	-	ND	0.0058		ND	0.0058		ND	0.0057	
1,1,2,2-Tetrachloroethane	0.6	ND	0.0059		ND ND	0.0058		NA	-	ļ	NA	-		NA			NA		
1,1,2-trichloro-1,2,2-trifluoroethane	6	ND	0.0059		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0057	
1,1,2-Trichloroethane	NS	ND	0.0059	-	ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0057	
1,1-Dichloroethane	0.2	ND	0.0059	-	ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0057	
1,1-Dichloroethene	0.4	ND	0.0059		ND	0.0058		ND ND	0.0058	-	ND	0.0058		ND	0.0058		ND	0.0057	
1,2,3-Trichloropropane	NS	ND	0.0059		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0057	
1,2,4-Trimethylbenzene	NS	ND	0.0012		ND	0.0012		ND	0.0058	-	ND	0.0058		ND	0.0058		ND	0.0057	
1,2-Dichlorobenzene	7.9	ND	0.0059		ND	0.0058		ND	0.0012		ND	0.0012		0.0013	0.0012		ND	0.0011	
1,2-Dichloroethane	0.1	ND	0.0059		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0057	
1,2-Dichloropropane	NS	ND	0.0059		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0057	
1,3,5-Trimethylbenzene	NS	ND	0.0012		ND	0.0012		ND	0.0038	<u> </u>	ND	0.0058		ND	0.0058		ND	0.0057	
1,3-Dichlorobenzene	1.6	ND	0.0059		ND	0.0058	-	ND	0.0012	· · · · · · · ·	ND ND	0.0012		ND	0.0012	-	ND	0.0011	1
1,3-Dichloropropane	NS	ND	0.0059		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0057	-
1,4-Dichlorobenzene	8.5	ND	0.0059		ND	0.0058		ND	0.0058		ND ND	0.0058		ND	0.0058		ND	0.0057	-
1,4-Dioxane	NS	ND	0.29		ND	0.29		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0057	-
2-Butanone	0.3	ND	0.0059		ND	0.0058		ND	0.0058		ND	0.29		ND	0.29		ND	0.29	-
2-Chloroethylvinylether	NS	ND	0.0059		ND	0.0058		ND	0.0058	-	ND	0.0058		ND	0.0058	-	ND	0.0057	
2-Hexanone	NS	ND	0.0059		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0057	-
4-Isopropyltoluene	NS	ND	0.0012		ND	0.0012		ND	0.0012		ND	0.0038		ND ND	0.0058		ND	0.0057	-
4-Methyl-2-Pentanone	1	ND	0.0059		ND	0.0058		ND	0.0058		ND	0.0012		ND	0.0012		ND	0.0011	
Acetone	0.2	ND	0.029		0.045	0.029		ND	0.029		0.029	0.029		0.08	0.0058		ND	0.0057	
Acrolein	NS	ND	0.029		ND	0.029		ND	0.029		ND	0.029		ND	0.029		0.071	0.029	ļ
Acrylonitrile	NS	ND.	0.0059		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.029		ND ND	0.029	
Benzene	0.06	ND	0.0012		ND	0.0012		ND	0.0012		ND	0.0012		ND	0.0038		ND	0.0057	
Bromodichloromethane	NS	ND	0.0059		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0012		ND	0.0011	
Bromoform	NS	ND	0.0059		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0057	
Bromomethane	NS	ND	0.0059		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0057	-
Carbon disulfide	2.7	ND	0.0059		ND	0.0058		ND	0.0058		0.0069	0.0058		0.007	0.0058		ND	0.0057	
Carbon tetrachloride	0.6	ND	0,0059		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0057	
Chlorobenzene	1.7	ND	0.0059		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0057	
Chloroethane	1.9	ND	0.0059		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0057	
Chloroform	0.3	ND	0.0059		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0057	-
Chloromethane	NS	ND	0.0059		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0057	
is-1,2-Dichloroethene is-1,3-Dichloropropene	NS	ND	0.0059		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0057	
	NS	ND	0.0059		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0057	
Dibromochloromethane Dichlorodifluoromethane	NS	ND	0.0059		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0058		ND	0.0057	
thylbenzene	NS	ND	0.0059		ND	0.0058		ND	0.0058		ND	0.0058		ND	0,0058		ND	0.0057	
sopropylbenzene	5.5 NS	ND	0.0012		ND	0.0012		ND	0.0012		ND	0.0012		ND	0.0012		ND	0.0011	
n&p-Xylenes	1.2	ND ND	0.0012		ND ND	0.0012		ND	0.0012		ND	0.0012		ND	0.0012		ND	0.0011	
ethylene chloride	0,1	0.0048	0.0024	JB	0.016	0.0023		ND	0.0023		ND	0.0023		ND	0.0023		ND	0.0023	
lethyl-t-butyl ether	NS	0.0046 ND	0.0059	JB	0.016 ND	0.0058	В	0.051	0.0058	В	0.0083	0.0058	В	0.029	0.0058	В	0.029	0.0057	В
-Butylbenzene	NS	ND	0.0012		ND ND	0.0012	-+	ND	0.0012		ND	0.0012		ND	0.0012		ND	0.0011	
-Propylbenzene	NS	ND	0.0012		ND	0.0012		ND ND	0.0012		ND	0.0012		ND	0.0012		ND	0.0011	
-Xylene	1.2	ND	0.0012		ND	0.0012		ND ND	0.0012		ND	0.0012		ND	0.0012		ND	0.0011	
ec-Butylbenzene	NS	ND	0.0012		ND	0.0012		ND	0.0012		ND ND	0.0012		ND	0.0012		ND	0.0011	
tyrene	NS	ND	0.0059		ND	0.0058		ND .	0.0012			0.0012		ND	0.0012		ND	0.0011	
Butyl Alcohol	NS	ND	0.029		ND	0.029	-	ND	0.0058	-+	ND ND	0.0058		ND	0.0058		ND	0.0057	
Butylbenzene	NS	ND	0.0012		ND	0.0012		ND	0.0012	-+	ND :	0.029		ND	0.029		ND	0.029	
etrachloroethene	1.4	ND	0.0059		ND	0.0058		ND	0.0012	-+	ND	0.0012		ND	0.0012		ND	0.0011	
oluene	1.5	ND	0.0012		ND	0.0012		ND	0.0038		ND	0.0058		ND	0.0058		ND	0.0057	
ans-1,2-Dichloroethene	0.3	ND	0.0059		ND	0.0012		ND	0.0012		ND ND	0.0012		ND	0.0012		ND	0.0011	
ans-1,3-dichloropropene	NS	ND	0.0059		ND	0.0058		ND	0.0058				-+	ND	0.0058		ND	0.0057	
richloroethene	0.7	ND	0.0059		ND	0.0058		ND	0.0058			0.0058		ND ND	0.0058		ND	0.0057	
richlorofluoromethane	NS	ND	0.0059		ND	0.0058		ND	0.0058		-	0.0058			0.0058		ND	0.0057	
	0.2	ND	0.0059		ND			-						ND	0.0058		ND	0.0057	
nyl chloride	0.2	NU				0.0058		ND	0.0058	,	ND	0.0058	. 1	ND	0.0058		ND	0.0057	

Notes and Abbreviations

- 1) Bold concentrations in shaded cells exceed the RSCOs
- 2) Duplicate samples collected from SH-5D and TE-4D mg/Kg = milligrams per kilogram (all units reported in mg/Kg),
- RSCOs = Recommended Soil Cleanup Objectives from the Technical and Administrative Guidance Memorandum # 4046, dated January 24, 1994.
- NA = Not analyzed NS = No Standard
- Conc = Concentration
- MDL = Quantitation Limit
- Qual = Laboratory Data Qualifier
- ND = The compound was not detected
- 3 = The analyte was found in the laboratory blank and the sample. This indicates possible laboratory contamination of the sample.
- J = The compound was detected at a concentration below the calibration range. The concentration is estimated.

Feet bgs = Feet below ground surface TICs = Tentatively identified compounds

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Location Sample ID		DI OD	TE-6 TE-6-1115	070000	D. 00.	TE-7		1	TE-8			TE-9			TE-10	
Lab Sample No.	New York	1	C34394-			E07-1109		1	TE-8-1120			E09-1112		PI-2B	TE10-112	107500
Sampling Date	RSCOs		11/15/20			C34355-		1	C34438-			C34274-			C34483	
Matrix	KSCOS	1	SOLID			11/9/200			11/20/20		1	1/12/20			11/21/20	07
Sample Depth (feet bgs)		1	4.5-5			SOLID		ŀ	SOLID	1	1	SOLID	1	1	SOLIE)
Volatile Organic Compounds (VOCs)	Conc	MDL	Qual	Conc	5.5-6	01	<u> </u>	5.5-6	T	<u> </u>	5.5-6			6.5-7	
1,1,1-Trichloroethane		_	_	Quai		MDL	Qual	Conc		Qual	Conc	MDL	Qual	Conc	MDL	Qua
	0.8	ND	0.0059	ļ	ND	0.0056		ND	0.006		ND	0.006		ND	0.0057	1
1,1,1,2-Tetrachloroethane 1,1,2,2-Tetrachloroethane	NS	NA	 	-	NA			NA			NA			NA		
	0.6	ND	0.0059		ND	0.0056		ND	0.006		ND	0.006		ND	0.0057	
1,1,2-trichloro-1,2,2-trifluoroethane 1,1,2-Trichloroethane	6	ND	0.0059		ND	0.0056		ND	0.006		ND	0.006		ND	0.0057	
	NS	ND	0.0059		ND	0.0056		ND	0.006		ND	0.006		ND	0.0057	
1,1-Dichloroethane	0.2	ND	0.0059		ND	0.0056		ND	0.006	ļ .	ND	0.006		ND	0.0057	T
1,1-Dichloroethene	0.4	ND	0.0059		ND	0.0056		ND	0.006		ND	0.006		ND	0.0057	
1,2,3-Trichloropropane	NS	ND	0.0059		ND	0.0056		ND	0.006		ND	0.006		ND	0.0057	
1,2,4-Trimethylbenzene	NS	0.0018	0.0012		ND	0.0011		ND	0.0012		ND	0.0012		ND	0.0011	
1,2-Dichlorobenzene	7.9	ND	0.0059		ND	0.0056		ND	0.006		ND	0.006		ND	0.0057	
1,2-Dichloroethane	0.1	ND	0.0059		ND	0.0056		ND	0.006		ND	0.006		ND	0.0057	
1,2-Dichloropropane	NS	ND	0.0059		ND	0.0056		ND	0.006		ND	0.006		ND	0.0057	
1,3,5-Trimethylbenzene	NS	ND	0.0012		ND	0.0011		ND	0.0012		ND	0.0012		ND	0.0011	
1,3-Dichlorobenzene	1.6	ND	0.0059		ND	0.0056		ND	0.006		ND	0.006		ND	0.0057	
1,3-Dichloropropane	NS	ND	0.0059		ND	0.0056		ND	0.006		ND	0.006		ND	0.0057	
1,4-Dichlorobenzene	8.5	ND	0.0059		ND	0.0056		ND	0.006		ND	0.006		ND	0.0057	<u> </u>
1,4-Dioxane	NS	ND	0.29		ND	0.28		ND	0.3		ND	0.3		ND	0.29	
2-Butanone	0.3	ND	0.0059		ND	0.0056		ND	0.006		ND	0.006		ND	0.0057	
2-Chloroethylvinylether	NS	ND	0.0059		ND	0.0056		ND	0.006		ND	0.006		ND	0.0057	
2-Hexanone	NS	ND	0.0059		ND	0.0056		ND	0.006		ND	0.006		ND	0.0057	
4-Isopropyttoluene	NS	ND	0.0012		ND	0.0011		ND	0.0012		ND	0.0012		ND	0.0011	
4-Methyl-2-Pentanone	1	ND	0.0059		ND	0.0056		ND	0.006		ND	0.006		ND	0.0057	
Acetone	0.2	0.027	0.029	J	ND	0.028		ND	0.03		0.024	0.03	J	ND	0.029	
Acrolein	NS	ND	0.029		ND	0.028		ND	0.03		ND	0.03		ND	0.029	
Acrylonitrile	NS	ND	0.0059		ND	0.0056		ND	0.006		ND	0.006		ND	0.0057	
Benzene	0.06	ND	0.0012		ND	0.0011		ND	0.0012		ND	0.0012		ND	0.0011	
Bromodichloromethane	NS	ND	0.0059		ND	0.0056		ND	0.006		ND	0.006		ND	0.0057	
Bromoform	NS	ND	0.0059		ND	0.0056		ND	0.006		ND	0.006		ND	0.0057	
3romomethane	NS	ND	0.0059		ND	0.0056		ND	0.006		ND	0.006		ND	0.0057	
Carbon disulfide	2.7	ND	0.0059		ND	0.0056		ND	0.006	1	ND	0.006		ND	0.0057	
Carbon tetrachloride	0.6	ND	0.0059		ND	0.0056		ND	0.006		ND	0.006		ND	0.0057	
Chlorobenzene	1.7	ND	0.0059		ND	0.0056		ND	0.006		ND	0.006		ND	0.0057	
Chloroethane	1.9	ND	0.0059		ND	0.0056		ND	0.006		ND	0.006		ND	0.0057	
Chloroform	0.3	ND	0.0059		ND	0.0056		ND	0.006		ND	0.006		ND	0.0057	
Chloromethane	NS	ND	0.0059		ND	0.0056		ND	0.006		ND	0.006		ND	0.0057	
is-1,2-Dichloroethene	NS	ND	0.0059		ND	0.0056		ND	0.006		ND	0.006		ND	0.0057	
is-1,3-Dichloropropene	NS	ND	0.0059		ND	0.0056		ND	0.006		ND	0.006		ND	0.0057	
Dibromochloromethane	NS	ND	0.0059		ND	0.0056		ND	0.006		ND	0.006		ND	0.0057	
Dichlorodifluoromethane	NS	ND	0.0059		ND	0.0056		ND	0.006		ND	0.006		ND	0.0057	
thylbenzene	5.5	ND	0.0012		ND	0.0011		ND	0.0012		ND	0.0012		ND	0.0011	
sopropylbenzene	NS	ND	0.0012		ND	0.0011		ND	0.0012		ND	0.0012		ND	0.0011	
n&p-Xylenes	1.2	ND	0.0024		ND	0.0022		ND	0.0024		ND	0.0024		ND	0.0023	
lethylene chloride	0.1	0.041	0.0059	В	0.02	0.0056	В	0.014	0.006	В	0.015	0.006	В	0.018	0.0057	В
lethyl-t-butyl ether	NS	ND	0.0012		ND	0.0011		ND	0.0012		ND	0.0012		ND	0.0011	
-Butylbenzene	NS	ND	0.0012		ND	0.0011		ND	0.0012		ND	0.0012		ND	0.0011	
-Propylbenzene	NS	ND	0.0012		ND	0.0011		ND	0.0012			0.0012		ND	0.0011	
-Xylene	1.2	ND	0.0012		ND	0.0011		ND	0.0012			0.0012		ND	0.0011	
ec-Butylbenzene	NS	ND	0.0012		ND	0.0011		ND	0.0012			0.0012		ND	0.0011	
tyrene	NS	ND	0.0059		ND	0.0056		ND	0.006		ND	0.006		ND	0.0057	
Butyl Alcohol	NS	ND	0.029		ND	0.028		ND	0.03		ND	0.03		ND	0.029	
Butylbenzene	NS	ND	0.0012		ND	0.0011		ND.	0.0012			0.0012		ND	0.0011	
etrachloroethene	1.4	ND	0.0059		ND	0.0056		ND	0.006		ND	0.006		ND	0.0057	
oluene	1.5	ND	0.0012		ND	0.0011		ND	0.0012			0.0012		ND	0.0037	
ans-1,2-Dichloroethene	0.3	ND	0.0059		ND	0.0056		ND	0.006		ND	0.006	-+	ND	0.0057	
ans-1,3-dichloropropene	NS	ND	0.0059		ND	0.0056		ND	0.006		ND	0.006		ND	0.0057	
richloroethene	0.7	ND	0.0059		ND	0.0056		ND	0.006		ND	0.006	-	ND	0.0057	
richlorofluoromethane	NS	ND	0.0059	1	ND	0.0056	1	ND I	0.006	1	ND I	0.006		ND 1	0.0057	
richlorofluoromethane nyl chloride	NS 0.2	ND ND	0.0059		ND	0.0056		ND ND	0.006		ND ND	0.006		ND ND	0.0057	

1) Bold concentrations in shaded cells exceed the RSCOs

2) Duplicate samples collected from SH-5D and TE-4D mg/Kg = milligrams per kilogram (all units reported in mg/Kg).

RSCOs = Recommended Soil Cleanup Objectives from the Technical and Administrative Guidance Memorandum # 4046, dated January 24, 1994.

NA = Not analyzed NS = No Standard

Conc = Concentration

MDL ≈ Quantitation Limit

Qual = Laboratory Data Qualifier ND = The compound was not detected

 β = The analyte was found in the laboratory blank and the sample. This indicates possible laboratory contamination of the sample.

J = The compound was detected at a concentration below the calibration range. The concentration is estimated.

Feet bgs = Feet below ground surface TICs = Tentatively identified compounds

					SITE	2										
Location	T	T	2ASE-2	?	T	WA-1		Т	WA-2			WA-3			WA-4	
Sample ID			-SE2-091		PI-2B-	WA1-110	5078003	AC	DCWA-2 (A	OCWA-3 (3-3.5)	_ A	VVA-4) DCWA-4	
Lab Sample No.	New York RSCOs	1 .	AC32972-		1 .	AC34093-0		1 .	AC25567-	001		AC25567-			AC25567-	
Sampling Date Matrix			9/13/200	17	1	11/5/200	7	1	38971.0		1	38971.0	0	1	38971.0	
Sample Depth (feet bgs)		1	SOLID 3-3.5		1	SOLID			SOLID		1	SOLID			SOLID)
Semivolatile Organic Compou	inds (SVOCs)	Conc	MDL	Qual	Conc	4-4.5 MDL	Qual	Cana	3.5-4	01	+	3-3.5			3-3.5	-,
1,2,4-Trichlorobenzene	3.4	ND	0.38	- Guar		-	Quai	Conc	MDL	Qual	Conc	MDL	Qual	Conc	MDL	Qual
1,2-Diphenylhydrazine	NS NS	ND		+	ND	0.40		ND	0.41		ND	0.41	-	ND	0.42	
2,4,5-Trichiorophenol	0.1	ND	0.38	+	ND	0.40	+	ND	0.41		ND	0.41	-	ND	0.42	
2,4,6-Trichlorophenol	NS	ND	0.38	+	ND	0.40	+	ND	0.41		ND	0.41		ND	0.42	
2,4-Dichlorophenol	0.4	ND	0.38	 	ND ND	0.40		ND	0.41		ND	0.41		ND	0.42	
2,4-Dimethylphenol	NS	ND	0.38	-	ND	0.40		ND	0.41	-	ND	0.41	ļ	ND	0.42	
2,4-Dinitrophenol	0.2	ND	0.95	1	ND	0.40		ND	0.41		ND	0.41	ļ	ND	0.42	
2,4-Dinitrotoluene	NS	ND	0.38	+		1.00		ND	2.10		ND	2.00		ND	2.10	
2,6-Dinitrotoluene	1 1	ND	0.38	 	ND ND	0.40	ļ	ND	0.41	+	ND	0.41		ND	0.42	
2-Chloronaphthalene	NS	ND	0.38		ND	0.40		ND	0.41		ND	0.41		ND	0.42	
2-Chlorophenol	0.8	ND	0.38	 	ND	0.40	 	ND	0.41		ND	0.41		ND	0.42	
2-Methylnaphthalene	36.4	ND	0.38		ND	0.40		ND	0.41	-	ND	0.41	-	ND	0.42	
2-Methylphenol	0.1	ND	0.38		ND	0.40	 	ND	0.41	+	ND	0.41	-	0.38	0.42	J
2-Nitroaniline	0,43	ND	0.38	+		0.40		ND	0.41	-	ND	0.41	-	ND	0.42	
2-Nitrophenol	0.33	ND	0.38	+	ND	0.40		ND	0.41		ND	0.41	-	ND	0.42	
3&4-Methylphenol	0.9	ND	0.38	+	ND	0.40		ND	0.41	+	ND	0.41	-	ND	0.42	
3,3'-Dichlorobenzidine	NS NS	ND	0.38		ND	0.40	+	ND	0.41	-	ND	0.41	-	ND	0.42	
3-Nitroaniline	0.5	ND	0.38	1	ND	0.40	 	ND	1.00	+	ND	1.00	-	ND	1.10	
4,6-Dinitro-2-methylphenol	NS NS	ND		-	ND	0.40		ND	0.41		ND	0.41	-	ND	0.42	
4-Bromophenyl-phenylether	NS NS	ND	0.95	 	ND	1.00		ND	1.00	-	ND	1.00	-	ND	1.10	
4-Chloro-3-methylphenol	0.24	ND			ND	0.40		ND	0.41	-	ND.	0.41		ND	0.42	
4-Chloroaniline	0.22	ND	0.38		ND	0.40		ND	0.41	ļ	ND	0.41		ND	0.42	
4-Chlorophenyl-phenylether	NS NS	ND	0.38		ND	0.40		ND	0.41	ļ.	ND	0.41		ND	0.42	
4-Nitroaniline	NS	ND	0.38		ND.	0.40		ND	0.41	<u> </u>	ND	0.41		ND	0.42	
4-Nitrophenol	0.1	ND		 	ND	0.40	-	ND	0.41	 	ND	,0.41	<u> </u>	ND	0.42	
Acenaphthene	50	ND	0.38		ND	0.40		ND	0.41	-	ND	0.41		ND	0.42	
Acenaphthylene	41	ND	0.38	-	ND 0.40	0.40		0.07	0.41	J	ND	0.41		0.09	0.42	J
Aniline	0.1	NA NA	1	 	0.10	0.40	J	0.07	0.41	J	ND	0.41		0.04	0.42	J
Anthracene	50	0.05	0.38	J	ND	0.40		NA		ļ	NA	ļ		NA		
Benzidine	NS NS	ND	0.38	J -	0.05 ND	0.40	J	0.13	0.41	J	ND	0.41		0.06	0.42	J
Benzo[a]anthracene	0.224	0.18	0.38	J	-0.30	0.40		ND	1.00		ND	1.00		ND	1.10	1
Benzo[a]pyrene	0.061	1 0.15	0.38	J			J	0.35	0.41	J	0.05	0.41	J	0.17	0.42	J
Benzo[b]fluoranthene	1.1	0.18	0.38	J	0.31	0.40	J	0.29	0.41	J	0.05	0.41	J	0.22	0.42	J
Benzo[g,h,i]perylene	50	0.13	0.38	J	0.23	0.40	J	0.47	0.41	 	0.09	0.41	J	0.26	0.42	J
Benzo[k]fluoranthene	1.1	0.08	0.38	J	0.23	0.40	J	0.20	0.41	J	ND	0.41	J	0.32	0.42	j
Benzyl alcohol	NS	ND	0.38	<u> </u>	ND	0.40		0.17	0.41	J	ND	0.41		0.09	0.42	J
Bis(2-Chloroethoxy)methane	NS	ND	0.38	<u> </u>	ND	0.40		ND ND	0.41		ND	0.41		ND	0.42	
Bis(2-Chloroethyl)ether	NS	ND	0.38		ND	0.40		ND ND	0.41	 	ND	0.41		ND	0.42	
Bis(2-Chloroisopropyl)ether	NS	ND	0.38		ND	0.40		ND	0.41	-	ND	0.41		ND	0.42	
Bis(2-Ethylhexyl)phthalate	50	0.25	0.38	J	ND	0.40		0.07	0.41	J	ND 0.40	0.41		ND	0.42	
Butylbenzylphthalate	50	ND	0.38		ND	0.40		ND	0.41		0.10 ND	0.41	J	0.10	0.42	J
Carbazole	NS	ND	0.38		ND	0.40		ND	0.41			0.41		ND	0.42	
Chrysene	0.4	0.16	0.38	J	0.33	0.40	J	0.42	0.41		ND 0.07	0.41		ND 0.21	0.42	
Dibenzo[a,h]anthracene	0.014	0.04	0.38	J	0.07	0.40	J	0.07	0.41	J	ND	0.41	J	STATISTICS AND ADDRESS.	0.42	J
Dibenzofuran	6.2	ND	0.38		ND	0.40		ND	0.41	J	ND	0.41		0.06	0.42	J
Diethylphthalate	7.1	ND	0.38		ND	0.40		ND	0.41		ND	0.41		0.12 ND	0.42	J
Dimethylphthalate	2	ND	0.38		ND	0.40		ND	0.41		ND	0.41		ND	0.42	
Di-n-butylphthalate	8.1	ND	0.38		ND	0.40		0.09	0.41	JB	0.17	0.41	JB	0.08	0.42	ID.
Di-n-octylphthalate	50	ND	0.38		ND	0.40		ND	0.41	35	ND	0.41	JB			JB
luoranthene	50	0.30	0.38	J	0.39	0.40	.1	0.74	0.41		0.10	0.41	J	ND 0.32	0.42	
luorene	50	ND	0.38		ND	0.40		0.10	0.41	J	ND ND	0.41		0.32	0.42	J
-lexachlorobenzene	0.41	ND	0.38		ND	0.40		ND	0.41		ND	0.41		ND		J
-lexachlorobutadiene	NS	ND	0.38		ND	0.40		ND	0.41		ND	0.41		ND	0.42	
-lexachlorocyclopentadiene	NS	ND	0.95		ND	0.40		ND	0.41		ND	0.41		ND	0.42	
-lexachloroethane	NS	ND	0.38		ND	0.40		ND	0.41		ND	0.41		ND	0.42	
ndeno[1,2,3-cd]pyrene	3.2	0.12	0.38	J	0.20	0.40	J	0.18	0.41	J	ND	0.41		0.14	0.42	J
sophorone	4.4	ND	0.38		ND	0.40		ND	0.41		ND	0.41				
Naphthalene	13	ND	0.38		ND	0.40		0.10	0.41	J	ND	0.41		ND 0.22	0.42	
Vitrobenzene	0.2	ND	0.38		ND	0.40		ND	0.41		ND	0.41		ND	0.42	_ J
N-Nitrosodimethylamine	NS	ND	0.38		ND	0.40		ND	1.00		ND	1.00		ND ND		
N-Nitroso-di-n-propylamine	NS	ND	0.38		ND	0.40		ND	0.41		ND	0.41		ND ND	1.10 0.42	
I-Nitrosodiphenylamine	NS	ND	0.38		ND	0.40		ND	0.41		ND	0.41		ND ND	0.42	
entachlorophenol	1	ND	0.95		ND	2.00		ND	1.00		ND	1.00		ND ND	1.10	
Phenanthrene	50	0.18	0.38	J	0.15	0.40	J	0.39	0.41	J	0.05	0.41	J	0.32	0.42	J
Phenoi	0.03	ND	0.38		ND	0.40		ND	0.41		ND	0.41	-	ND	0.42	
Pyrene `	50	0.35	0.38	J	0.57	0.40		0.73	0.41		0.10	0.41	J	0.32	0.42	J
otal SVOC TICs	NS	80.66		J	79.11		J	217.65		J	138.71	2.11	J	220.47	0.42	- - - - - - - -
lotes and Abbreviations					-	-										

Notes and Abbreviations

1) Bold concentrations in shaded cells exceed the RSCOs

2) Duplicate samples collected from SH-5D and TE-4D.

mg/Kg = milligrams per kilogram (all units reported in mg/kg). RSCOs = Recommended Soil Cleanup Objectives from the Technical and Administrative Guidance Memorandum # 4046, dated January 24, 1994.

NA = Not analyzed NS = No Standard

Conc = Concentration

MDL = Quantitation Limit

Qual = Laboratory Data Qualifier ND = The compound was not detected

B = The analyte was found in the laboratory blank and the sample. This indicates possible laboratory contamination of the sample.

J = The compound was detected at a concentration below the calibration range. The concentration is

					SITE	2										
Location	1	T	WA-5		T	WA-5		T	WA-6		T	WA-7			WA-8	
Sample ID			NA05-110		PI-2B\	NA05-110	8078004	AC	DCWA-6 (3	3.5-4)	A	OCWA-7 (4	4-4.5)	Α.) 8-AWOC	3_3.5)
Lab Sample No.	New York RSCOs	1	AC34275-0		1 .	AC34275-0	002		AC25567-4			AC25567-			AC25567-	
Sampling Date Matrix		1	11/8/200	7	1	11/8/200	7	1	38971.0	0		38971.0			38971.0	
Sample Depth (feet bgs)		1	SOLID			SOLID		1	SOLID			SOLID			SOLID	
Semivolatile Organic Compo	unds (SVOCs)	Conc	4-4.5 MDL	Qual	Conc	6.5-7 MDL	Qual	-	3.5-4	T = -	+	4-4.5	·		3-3.5	
1,2,4-Trichlorobenzene	3.4	ND	0.42	Quai	_		Quai	Conc	MDL	Qual	Conc	MDL	Qual	Conc	MDL	Qual
1,2-Diphenylhydrazine	NS NS	ND	0.42		ND	0.40	ļ	ND	0.42		ND	0.40		ND	0.42	
2,4,5-Trichlorophenol	0.1	ND	0.42	 	ND	0.40	-	ND	0.42	+	ND	0.40	-	ND	0.42	
2,4,6-Trichlorophenol	NS	ND	0.42		ND	0.40		ND	0.42		ND	0.40	-	ND	0.42	
2,4-Dichlorophenol	0.4	ND	+	-	ND	0.40	-	ND	0.42		ND	0.40	-	ND	0.42	
2,4-Dimethylphenol	NS NS	ND	0.42		ND	0.40	-	ND	0.42		ND	0.40	-	ND	0.42	
2,4-Dinitrophenol	0.2	ND	-		ND	0.40		ND	0.42		ND	0.40		ND	0.42	
2,4-Dinitrotoluene	NS	ND	0.42	-	ND	0.99	ļ	ND	2.10	-	ND	2.00		ND	2.10	
2,6-Dinitrotoluene	1	ND	0.42	-	ND ND	0.40	ļ	ND	0.42	ļ	ND	0.40		ND	0.42	
2-Chloronaphthalene	NS	ND	0.42		ND	0.40	 	ND	0.42		ND	0.40	-	ND	0.42	
2-Chlorophenol	0.8	ND	0.42			0.40		ND	0.42		ND	0.40	-	ND	0.42	
2-Methylnaphthalene	36.4	ND	0.42		ND	0.40	 	ND	0.42		ND	0.40	-	ND	0.42	
2-Methylphenol	0,1	ND			ND	0.40		ND	0.42	-	ND	0.40		0.06	0.42	J
2-Nitroaniline			0.42		ND	0.40		ND	0.42	-	ND	0.40		ND	0.42	
2-Nitrophenol	0.43	ND	0.42	 	ND	0.40	-	ND	0.42		ND	0.40		ND	0.42	
3&4-Methylphenol	0.33	ND	0.42		ND	0.40		ND	0.42		ND	0.40		ND	0.42	
3,3'-Dichlorobenzidine	NS	ND	0.42	 	ND	0.40	-	ND	0.42	ļ	ND	0.40	-	ND	0.42	
3-Nitroaniline		ND ND	0.42	-	ND	0.40	<u> </u>	ND	1.00	-	ND	1.00		ND	1.10	
4,6-Dinitro-2-methylphenol	0.5	ND	0.42		ND	0.40		ND	0.42	ļ	ND	0.40	-	ND	0.42	
4-Bromophenyl-phenylether	NS NS	ND	1.10		ND	0.99	<u> </u>	ND	1.00		ND	1.00		ND	1.10	
4-Chloro-3-methylphenol	NS 0.24	ND	0.42		ND	0.40		ND	0.42	-	ND	0.40		ND	0.42	
4-Chloroaniline	0.24	ND	0.42		ND	0.40		ND .	0.42		ND	0.40	-	ND	0.42	1
~		ND	0.42		ND	0,40		ND	0.42		ND	0.40		ND	0.42	
4-Chlorophenyl-phenylether 4-Nitroaniline	NS NS	ND	0.42	-	ND	0.40		ND	0.42		ND	0.40		ND	0.42	
	NS NS	ND	0.42		ND	0.40		ND	0.42	<u> </u>	ND	0.40		ND	0.42	
4-Nitrophenol	0.1	ND	0.42		ND	0.40		ND	0.42		ND	0.40		ND	0.42	
Acenaphthene	50	0.07	0.42	J	ND	0.40		ND	0.42		ND	0.40		0.07	0.42	J
Acenaphthylene Aniline	41	0.07	0.42	J	ND	0.40		0.05	0.42	J	0.07	0.40	J	0.08	0.42	J
Anthracene	0.1	ND	0.42		ND	0.40		NA			NA	1		NA		
	50	0.12	0.42	J	ND	0.40		0.10	0.42	J	0.11	0.40	J	0.07	0.42	J
Benzidine	NS NS	ND	0.42		ND	0.40		ND	1.00		ND	1.00		ND	1.10	
Benzo[a]anthracene	0.224	0.25	0.42	J	0.05	0.40	J	0.51	0.42		0.29	0.40	J	0.34	0.42	J
Benzo[a]pyrene	0.061	0.22	0.42	J	ND	0.40		0.46	0.42		0.32	0.40	J	0.26	0.42	J
Benzo[b]fluoranthene	1.1	0.40	0.42		0.07	0.40	J	0.71	0.42		0.44	0.40		0.36	0.42	J
Benzo[g,h,i]perylene Benzo[k]fluoranthene	50	0.24	0.42	J	0.04	0.40	J '	0.36	0.42	J	0.25	0.40	J	0.19	0.42	J
Benzyl alcohol	1.1	0.14	0.42	J	ND	0.40		0.20	0.42	J	0.13	0.40	J	0.11	0.42	J
Bis(2-Chloroethoxy)methane	NS NS	ND	0.42		ND	0.40		ND	0.42		ND	0.40		ND	0.42	
Bis(2-Chloroethyl)ether	NS NS	ND	0.42		ND	0.40		ND	0.42		ND	0.40		ND	0.42	
Bis(2-Chloroisopropyl)ether	NS	ND	0.42		ND	0.40		ND	0.42		ND	0.40		ND	0.42	
Bis(2-Ethylhexyl)phthalate	50	ND 0.40	0.42		ND	0.40		ND	0.42		ND	0.40		ND	0.42	
Butylbenzylphthalate	50	0.10 ND	0.42	J	ND	0.40		0.11	0.42	J	0.22	0.40	J	0.18	0.42	J
Carbazole	NS NS	ND	0.42		ND	0.40		ND	0.42		ND	0.40		0.10	0.42	J
Chrysene	0.4	0.34	0.42	J	ND	0.40		ND	0.42		ND	0.40		ND	0.42	
Dibenzo[a,h]anthracene	0.014	0.08	0.42	J	0.05	0.40	_ J	0.51	0.42		0.32	0.40	J	0.39	0.42	J
Dibenzofuran	6.2	ND	0.42		ND ND	0.40		0.08	0.42	J	0.07 (*	0.40	J	0.05	0.42	J
Diethylphthalate	7.1	ND	0.42		ND	0.40		ND.	0.42		ND	0.40		ND	0.42	
Dimethylphthalate	2	ND	0.42		ND	0.40		ND	0.42		ND	0.40		ND	0.42	
Di-n-butylphthalate	8.1	0.12	0.42	J	0.04		J	ND 0.10	0.42		ND	0.40		0.14	0.42	J
Di-n-octylphthalate	50	ND	0.42	J	ND	0.40	<u> </u>	0.10	0.42	JB	0.13	0.40	JB	0.06	0.42	J
luoranthene	50	0.52	0.42		0.07	0.40		ND 0.77	0.42		ND	0.40		ND	0.42	
luorene	50	0.32	0.42	J	ND		J	0.77	0.42		0.51	0.40		0.70	0.42	
lexachlorobenzene	0.41	ND ND	0.42	J	ND	0.40		0.05	0.42	J	0.05	0.40	J	0.09	0.42	J
lexachlorobutadiene	NS NS	ND	0.42		ND	0.40		ND	0.42		ND	0.40		ND	0.42	
lexachlorocyclopentadiene	NS	ND	0.42		ND	0.40		ND	0.42		ND	0.40		ND	0.42	
Hexachloroethane	NS	ND	0.42		ND	0.40		ND	0.42		ND	0.40		ND	0.42	
ndeno[1,2,3-cd]pyrene	3.2	0.18	0.42	J	ND ND	0.40		ND 0.31	0.42		ND	0.40		ND	0.42	
sophorone	4.4	ND ND	0.42		ND	0.40		0.31	0.42	J	0.20	0.40	J	0.15	0.42	J
laphthalene	13	0.19	0.42	J		-		ND 0.11	0.42		ND	0.40		ND	0.42	
litrobenzene	0.2	ND ND	0.42		ND ND	0.40		0.11	0.42	J	0.06	0.40	J	0.05	0.42	J
I-Nitrosodimethylamine	NS	ND	0.42		ND ND	0.40		ND	0.42		ND	0.40		ND	0.42	
I-Nitroso-di-n-propylamine	NS NS	ND ND				0.40		ND	1.00		ND	1.00		ND	1.10	
I-Nitrosodiphenylamine	NS NS		0.42		ND	0.40		ND	0.42		ND	0.40		ND	0.42	
entachlorophenol	1	ND ND	0.42		ND	0,40		ND	0.42		ND	0.40		ND	0.42	
		ND OAF	2.10 0.42		ND	2.00		ND	1.00		ND	1.00		ND	1.10	
										J					1	
henanthrene henal	50	0.45	-		0.07	0.40	J	0.37	0.42		0.44	0.40		0.59	0.42	
henol	0.03	ND	0.42		ND	0.40		ND	0.42	J	ND	0.40		0.59 ND	0.42	
			-	J			J			J			J			J

Notes and Abbreviations

- Bold concentrations in shaded cells exceed the RSCOs
 Duplicate samples collected from SH-5D and TE-4D.

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contamination of the sample.

J = The compound was detected at a concentration below the calibration range. The concentration is estimated.

					SITE	2										
Location	1	T	WA-9		T	WA-10		T	WA-11		Т	WA-12		Т	WA-13	
Sample ID			OCWA-9 (3			CWA-10 (CWA-11	3-3.5)	PI-2B	WA12-110	907SO04	PI-2BV	VA13-1108	8078002
Lab Sample No. Sampling Date	New York RSCOs	1	AC25567-0		1 '	AC25567-			AC25567-			AC34274-	006		AC34275-0	
Matrix		1	38971.00 SOILD)		38971.0			38971.0			11/9/200	7		11/8/200	7
Sample Depth (feet bgs)		1	3-3.5			SOILD 3-3,5		1	SOLIDS	3		SOLID		1	SOLID	
Semivolatile Organic Compo	unds (SVOCs)	Conc	MDL	Qual	Conc	MDL	Qual	Conc	3-3.5 MDL	Qual	Conc	4.5-5 MDL	01	-	3-3.5	T = -
1,2,4-Trichlorobenzene	3.4	ND	0.40		ND	0.42	1	ND	0.42	Quai			Qual	Conc	MDL	Qual
1,2-Diphenylhydrazine	NS	ND	0.40		ND	0.42	1	ND	0.42	-	ND	0.41		ND	0.41	
2,4,5-Trichlorophenol	0.1	ND	0.40		ND	0.42		ND	0.42	+	ND ND	0.41	 	ND	0.41	
2,4,6-Trichlorophenol	NS	ND	0.40		ND	0.42	1	ND	0.42	-	ND	0.41		ND	0.41	-
2,4-Dichlorophenol	0.4	ND	0.40		ND	0.42	1	ND	0.42	+	ND	0.41	 	ND	0.41	
2,4-Dimethylphenol	NS	ND	0.40		ND	0.42	1	ND	0.42	-	ND	0.41	 	ND	0.41	
2,4-Dinitrophenol	0.2	ND	2.00		ND	2.10		ND	2.10	1	ND	1.00	-	ND ND	0.41	
2,4-Dinitrotoluene	NS	ND	0.40		ND	0.42		ND	0.42	 	ND	0.41	+	ND	1.00	
2,6-Dinitrotoluene	1	ND	0.40		ND	0.42		ND	0.42	1	ND	0.41	-	ND	0.41	
2-Chloronaphthalene	NS	ND	0.40		ND	0.42		ND	0.42	1	ND	0.41	 	ND	0.41	-
2-Chlorophenol	0.8	ND	0.40		ND	0.42		ND	0.42	1	ND	0.41	 	ND	0.41	
2-Methylnaphthalene	36.4	0.18	0.40	J	0.07	0.42	J	ND	0.42	1	ND	0.41	 	0.40	0.41	J
2-Methylphenol	0,1	ND	0.40		ND	0.42		ND	0.42	1	ND	0.41	 	ND	0.41	J
2-Nitroaniline	0.43	ND	0.40		ND	0.42		ND	0.42	1	ND	0.41		ND	0.41	
2-Nitrophenol	0.33	ND	0.40		ND	0.42	T	ND	0.42	1	ND	0.41	1	ND	0.41	
3&4-Methylphenol	0.9	ND	0.40		ND	0.42		ND	0.42	1	ND	0.41	1	ND	0.41	
3,3'-Dichlorobenzidine	NS	ND	0.99		ND	. 1.10		ND	1.10		ND	0.41		ND	0.41	
3-Nitroaniline	0.5	ND	0.40		ND	0.42		ND	0.42		ND	0.41	T	ND	0.41	
4,6-Dinitro-2-methylphenol	NS	ND	0.99		ND	1.10		ND	1.10		ND	1.00		ND	1.00	
4-Bromophenyl-phenylether	NS	ND	0.40		ND	0.42	1	ND	0.42		ND	0.41		ND	0.41	
4-Chloro-3-methylphenol	0.24	ND	0.40		ND	0.42		ND	0.42		ND	0.41		ND	0.41	
4-Chloroaniline	0.22	ND	0.40		ND	0.42		ND	0.42		ND	0.41		ND	0.41	
4-Chlorophenyl-phenylether	NS	ND	0.40		ND	0.42		ND	0.42		ND	0.41		ND	0.41	
4-Nitroaniline	NS	ND	0.40		ND	0.42		ND	0.42		ND	0.41		ND	0.41	
4-Nitrophenol	0.1	ND	0.40		ND	0.42		ND	0.42		ND	0.41		ND	0.41	
Acenaphthene	50	0.18	0.40	J	ND	0.42		0.07	0.42	J	ND	0.41		0.07	0.41	J
Acenaphthylene Aniline	41	0.20	0.40	J	ND	0.42	ļ	ND	0.42		ND	0.41		0.49	0.41	
Anthracene	0.1 50	NA 0.60	0.40		NA NA			NA.			ND	0.41		ND	0.41	
Benzidine	NS NS	0.62 ND	0.40		ND	0.42	-	0.11	0.42	J	ND	0.41		0.24	0.41	J
Benzo[a]anthracene	0.224	1.70	0.99		ND	1.10	ļ	ND	1.10		ND	0.41		ND	0.41	
Benzo[a]pyrene	0.061	1.50	0.40		0.11	0.42	J	0.39	0.42	J	0.13	0.41	J	1.20	0.41	
Benzo[b]fluoranthene	1.1	2.00	0.40		0.12	0.42	J	0:33	0.42	J	0.13	0.41	J	1.30	0.41	
Benzo[g,h,i]perylene	50	0.95	0.40		0.10	0.42	J	0.47	0.42	J	0.20	0.41	J	1.90	0.41	
Benzo[k]fluoranthene	1.1	0.65	0.40	-	0.08	0.42	3	0.23	0.42	J	0.11	0.41	J	1.00	0.41	
Benzyl alcohol	NS	ND	0.40		ND	0.42		ND ND	0.42		ND	0.41	J	0.54	0.41	
Bis(2-Chloroethoxy)methane	NS	ND	0.40		ND	0.42		ND	0.42		ND	0.41		ND ND	0.41	
Bis(2-Chloroethyl)ether	NS	ND	0.40		ND	0.42		ND	0.42		ND	0.41		ND	0.41	
Bis(2-Chloroisopropyl)ether	NS	ND	0.40		ND	0.42		ND	0.42		ND	0.41		ND	0.41	
Bis(2-Ethylhexyl)phthalate	50	0.12	0.40	J	0.06	0.42	J	0.14	0.42	J	ND	0.41		0.05	0.41	J
Butylbenzylphthalate	50	ND	0.40		ND	0.42		ND	0.42		ND	0.41		ND	0.41	
Carbazole	NS	0.26	0.40	J	ND	0.42		0.05	0.42	J	ND	0.41	-	0.09	0.41	J
Chrysene	0.4	1.70	0.40	-	0.14	0.42	J	0.39	0.42	J	0.14	0.41	J	1.50	0.41	
Dibenzo[a,h]anthracene	0.014	0.26	0.40	J	ND	0.42		0.06	0.42	J	ND	0.41		0.32	0.41	J
Dibenzofuran	6.2	0.12	0.40	J	ND	0.42		ND	0.42		ND	0.41		0.18	0.41	J
Diethylphthalate	7.1	ND	0.40		ND	0.42		ND	0.42		ND	0.41		ND	0.41	
Dimethylphthalate	2	ND	0.40		ND	0.42		ND	0.42		ND	0.41		ND	0.41	
Di-n-butylphthalate	8.1	0.07	0.40	J	ND	0.42		0.05	0.42	J	ND	0.41		ND	0.41	
Di-n-octylphthalate Fluoranthene	50	ND	0.40		ND	0.42		ND	0.42		ND	0.41		ND	0.41	
Fluorene	50 50	3.20	0.40		0.20	0.42	J	0.83	0.42		0.22	0.41	J	2.20	0.41	
lexachlorobenzene	0.41	0.31 ND	0.40	J	0.09	0.42	J	0.06	0.42	J	ND	0.41		0.12	0.41	J
lexachlorobutadiene	NS NS	ND	0.40		ND	0.42		ND	0.42		ND	0.41		ND	0.41	
lexachlorocyclopentadiene	NS NS	ND	0.40		ND	0.42		ND	0.42		ND	0.41		ND	0.41	
lexachloroethane	NS NS	ND ND	0.40		ND	0.42		ND	0.42		ND	0.41		ND	0.41	
ndeno[1,2,3-cd]pyrene	3.2	0.85	0.40		ND 0.08	0.42	J	ND 0.33	0.42		ND 0.00	0.41		ND	0.41	
sophorone	4.4	ND ND	0.40		ND	0.42		0.22 ND	0.42	J	0.09	0.41	J	0.87	0.41	
laphthalene	13	0.30	0.40	J	ND	0.42		ND	0.42		ND ND	0.41		ND	0.41	
litrobenzene	0.2	ND ND	0.40		ND	0.42		ND	0.42		ND	0.41		0.28	0.41	J
l-Nitrosodimethylamine	NS	ND	0.99		ND	1.10		ND	1.10		ND ND	0.41		ND	0.41	
l-Nitroso-di-n-propylamine	NS	ND	0.40		ND	0.42		ND	0.42		ND	0.41		ND ND	0.41	
l-Nitrosodiphenylamine	NS	ND	0.40	-	ND	0.42		ND	0.42		ND	0.41		ND ND	0.41	
entachlorophenol	1 3	ND	0.99		ND	1.10		ND	1.10		ND	2.00		ND	2.00	1
henanthrene	50	2.80	0.40		0.13	0.42	J	0.56	0.42		0.12	0.41	j	1.00	0.41	
henol	0.03	ND	0.40		ND	0.42		ND	0.42		ND	0.41		ND ND	0.41	
yrene	50	3.50	0.40		0.20	0.42	J	0.81	0.42		0.26	0.41	J	2.50	0.41	
otal SVOC TICs	NS	186.75		J	194.07		J	194.48		J	82.53		Ĵ	77.46		J
otes and Abbreviations																

Notes and Abbreviations

- Bold concentrations in shaded cells exceed the RSCOs
 Duplicate samples collected from SH-5D and TE-4D.

mg/Kg = milligrams per kilogram (all units reported in mg/kg). RSCOs = Recommended Soil Cleanup Objectives from the Technical and Administrative Guidance Memorandum # 4046, dated January 24, 1994.

NA = Not analyzed NS = No Standard

Conc = Concentration

MDL = Quantitation Limit

Qual = Laboratory Data Qualifier ND = The compound was not detected

B = The analyte was found in the laboratory blank and the sample. This indicates possible laboratory

contamination of the sample.

J = The compound was detected at a concentration below the calibration range. The concentration is

					SITE	2										
Location	1	T	WA-14			WA-15		Т	WA-16			1111			~	
Sample ID			WA14-110		PI-2BV	VA15-110	707SO04	PI-2B\	WA16-110	3078003	PI-2B	WA-1 WA17-11		DI 20	SH-1 ISH01-110	0070000
Lab Sample No.	New York RSCOs	1	AC34275-0			AC34160-0	004		AC34275-0		1 / 1	AC34274			AC34274-	
Sampling Date Matrix		1	11/8/200	7	1	11/7/200	7	1	11/8/200	7		11/9/20		1	11/9/200	
Sample Depth (feet bgs)		1	SOLID			SOLID			SOLID		1	SOLIE			SOLID	
Semivolatile Organic Compou	inds (SVOCs)	Conc	3-3.5 MDL	01	 	6-6.5	1	1	4.5-5			1.5-2			4.5-5	
1,2,4-Trichlorobenzene				Qual	Conc	MDL	Qual	Conc	MDL	Qual	Conc	MDL	Qual	Conc	MDL	Qual
1,2-Diphenylhydrazine	3.4	ND	0.38	-	ND	0.42	-	ND	2.90		ND	0.41		ND	0.41	T
2,4,5-Trichlorophenol	NS	ND	0.38		ND	0.42		ND	2.90		ND	0.41		ND	0.41	
2,4,6-Trichlorophenol	0.1	ND	0.38	-	ND	0.42		ND	2.90		ND	0.41		ND	0.41	
	NS	ND	0.38		ND	0.42		ND	2.90		ND	0.41		ND	0.41	
2,4-Dichlorophenol	0.4	ND	0.38		ND	0.42		ND	2.90		ND	0.41		ND	0.41	†
2,4-Dimethylphenol	NS	ND	0.38		ND :	0.42		ND	2.90		ND	0.41		ND	0.41	1
2,4-Dinitrophenol	0.2	ND	0.96		ND	1.00		ND	7.30		ND	1.00	1	ND	1.00	
2,4-Dinitrotoluene	NS	ND	0.38		ND	0.42		ND	2.90		ND	0.41		ND	0.41	-
2,6-Dinitrotoluene	1	ND	0.38		ND	0.42		ND	2.90		ND	0.41		ND	0.41	+
2-Chloronaphthalene	NS	ND	0.38		ND	0.42		ND	2.90		ND	0.41		ND	0.41	+
2-Chlorophenol	0.8	ND	0.38		ND	0.42		ND	2.90		ND	0.41	1	ND	0.41	+
2-Methylnaphthalene	36.4	0.37	0.38	J	ND	0.42		ND	2.90		ND	0.41	1	0.36	0.41	J
2-Methylphenol	0.1	ND	0.38		ND	0.42		ND	2.90		ND	0.41		ND	0.41	J
2-Nitroaniline	0.43	ND	0.38		ND	0.42		ND	2.90	·	ND	0.41				
2-Nitrophenol	0.33	ND	0.38		ND	0.42		ND	2.90		ND	0.41	-	ND	0.41	
3&4-Methylphenol	0.9	ND	0.38		ND	0.42		ND	2.90	<u> </u>	ND	0.41	+	ND	0.41	
3,3'-Dichlorobenzidine	NS	ND	0.38		ND	0.42		ND	2.90		ND	-	+	ND	0.41	+
3-Nitroaniline	0.5	ND	0.38		ND	0.42		ND	2.90			0.41	+	ND	0.41	-
4,6-Dinitro-2-methylphenol	NS	ND	0.96		ND	1.00		ND	7.30		ND ND	0.41	+	ND	0.41	-
4-Bromophenyl-phenylether	NS	ND	0.38		ND	0.42		ND	2.90		ND	1.00	+	ND	1.00	-
4-Chloro-3-methylphenol	0.24	ND	. 0.38		ND	0.42					ND	0.41	-	ND	0.41	-
4-Chloroaniline	0.22	ND	0.38		ND	0.42		ND	2.90		ND	0.41	-	ND	0.41	
4-Chlorophenyl-phenylether	NS	ND	0.38		ND			ND	2.90		ND	0.41		ND	0.41	
4-Nitroaniline	NS	ND	0.38			0.42		ND	2.90		ND	0.41		ND	0.41	
4-Nitrophenol	0.1	ND	0.38		ND	0.42		ND	2.90		ND	0.41		ND	0.41	
Acenaphthene	50				ND	0.42		ND	2.90		ND	0.41		ND	0.41	
Acenaphthylene	41	0.35	0.38	J	ND	0.42		0.78	2.90	J	0.30	0.41	J	0.14	0.41	J
Anlline		0.60	0.38		ND	0.42		ND	2.90		0.19	0.41	J	0.15	0.41	J
Anthracene	0,1	ND	0.38		ND	0.42		ND	2.90		ND	0.41		ND	0.41	
Benzidine	50	0.38	0.38	J	ND	0.42		0.53	2.90	J	0.31	0.41	J	0.29	0.41	J
	NS	ND	0.38		ND	0.42		ND	2.90		ND	0.41		ND	0.41	
Benzo[a]anthracene	0.224	1:70	0.38		ND	0.42		0.69	2.90	J	0.59	0.41		1.10	0.41	
Benzo[a]pyrene	0.061	1.90	0.38		ND	0.42		0,56	2.90	J	0.54	0.41		1.10	0.41	
Benzo[b]fluoranthene	1.1	2.90	0.38		ND	0.42		1.30	2,90	J	0.93	0.41		1.50	0.41	
Benzo[g,h,i]perylene	50	1.70	0.38		ND	0.42		0.67	2.90	J	0.49	0.41		0.79	0.41	
Benzo[k]fluoranthene	1.1	0.98	0.38		ND	0.42		0.33	2.90	J	0.28	0.41	J	0.48	0.41	
Benzyl alcohol	NS	ND	0.38		ND	0.42		ND	7.30		ND	0.41		ND	0.41	
Bis(2-Chloroethoxy)methane	NS	ND	0.38		ND	0.42		ND	2.90		ND	0.41	1	ND	0.41	
Bis(2-Chloroethyl)ether	NS	ND	0.38		ND	0.42		ND	2.90		ND	0.41	1	ND	0.41	
Bis(2-Chloroisopropyl)ether	NS	ND	0.38		ND	0.42		ND	2.90		ND	0.41	1	ND	0.41	
Bis(2-Ethylhexyl)phthalate	50	0.09	0.38	J	ND	0.42		ND	2.90		ND	0.41		0.05	0.41	J
Butylbenzylphthalate	50	ND	0.38		ND	0.42		ND	2.90		ND	0.41		ND ND	0.41	
Carbazole	NS	0.10	0.38	J	ND	0.42		ND :	2.90		ND	0.41	 	ND	0.41	
Chrysene	0.4	2.10	0.38		ND	0.42		1:30	2.90	J	0.67	0.41	 	1.20	0.41	
Dibenzo(a,h)anthracene	0.014	0.48	0.38		ND	0.42		ND	2.90		0.18	0.41	J			
Dibenzofuran	6.2	0.21	0.38	J	ND	0.42		ND	2.90		0.24	0.41	J	0.23	0.41	J
Diethylphthalate	7.1	ND	0.38		ND	0.42		ND	2.90		ND	0.41		ND	0.41	
Dimethylphthalate	2	ND	0.38		ND	0.42		ND	2.90		ND	0.41		ND	0.41	
Di-n-butylphthalate	8.1	ND	0.38		ND	0.42		ND	2.90		ND	0.41	-	ND ND	0.41	
Di-n-octylphthalate	50	ND	0.38		ND	0.42		ND	2.90		ND			ND	0.41	
luoranthene	50	3.60	0.38		ND	0.42		2.00	2.90	J		0.41		ND 100	0,41	
luorene	50	0.17	0.38	J	ND	0.42		0.41	2.90	J	1.30	0.41		1.80	0.41	
lexachiorobenzene	0.41	ND	0.38		ND	0.42		ND	2.90	y	0.25	0.41	J	0.24	0.41	J
lexachlorobutadiene	NS	ND	0.38		ND	0.42					ND	0.41		ND	0.41	
lexachlorocyclopentadiene	NS	ND	0.38		ND	0.42		ND ND	2.90		ND	0.41		ND	0.41	
lexachloroethane	NS	ND	0.38						2.90		ND	0,41		ND	0.41	
		1.60	0.38		ND	0.42		ND	2.90		ND	0.41		ND	0.41	
		1.00	0.38		ND	0.42		0.50	2.90	J	0.41	0.41	J	0.64	0.41	
ndeno[1,2,3-cd]pyrene	3.2	ND		- 1	ND	0.42		ND	2.90		ND	0.41		ND	0.41	
ndeno[1,2,3-cd]pyrene sophorone	4.4	ND			NIP		1	0.22	2.90							J
ndeno[1,2,3-cd]pyrene sophorone laphthalene	4.4 13	0.23	0.38	J	ND	0.42		0.32		J	0.21	0.41	J	0.34	0.41	
ndeno[1,2,3-cd]pyrene sophorone laphthalene litrobenzene	4.4 13 0.2	0.23 ND	0.38 0.38	J	ND	0.42		ND	2.90	J	0.21 ND	0.41 0.41	J	0.34 ND	0.41 0.41	J
ndeno[1,2,3-od]pyrene sophorone laphthalene litrobenzene -Nitrosodimethylamine	4.4 13 0.2 NS	0.23 ND ND	0.38 0.38 0.38	J	ND ND	0.42 0.42		ND ND	2.90 2.90	J			J			J
ndeno[1,2,3-cd]pyrene sophorone aphthalene likrobenzene -Nikrosodimethylamine -Nikrosodi-n-propylamine	4.4 13 0.2 NS	0.23 ND ND ND	0.38 0.38 0.38 0.38	J	ND ND ND	0.42 0.42 0.42		ND ND ND	2.90	J	ND	0.41	J	ND	0.41	J
ndeno(1,2,3-cd)pyrene sophorone aphthaliene litrobenzeneNitrosodimethylamineNitrosod-In-propylamineNitrosodiphenylamine	4.4 13 0.2 NS NS	0.23 ND ND ND ND	0.38 0.38 0.38 0.38 0.38	J	ND ND ND ND	0.42 0.42 0.42 0.42		ND ND	2.90 2.90	J	ND ND	0.41 0.41	J	ND ND	0.41 0.41	J
ndeno[1,2,3-od]pyrene isophorone laphthalene litrobenzene -Nitrosod-In-propylamine -Nitrosod-Jn-propylamine -Nitrosod-In-propylamine entachlorophenol	4.4 13 0.2 NS NS NS	0.23 ND ND ND ND ND	0.38 0.38 0.38 0.38 0.38 1.90	J	ND ND ND ND ND	0.42 0.42 0.42 0.42 2.10		ND ND ND	2.90 2.90 2.90	J	ND ND ND	0.41 0.41 0.41	J	ND ND ND	0.41 0.41 0.41	J
ndeno[1,2,3-od]pyrene sophorone laphthalene littlobenzene -Nitrosodimethylamine -Nitrosodiphenylamine -Nitrosodiphenylamine entachlorophenol henanthrene	4.4 13 0.2 NS NS NS 1	0.23 ND ND ND ND ND ND ND	0.38 0.38 0.38 0.38 0.38 1.90 0.38	J	ND ND ND ND	0.42 0.42 0.42 0.42		ND ND ND	2.90 2.90 2.90 2.90	J	ND ND ND ND	0.41 0.41 0.41 0.41	J	ND ND ND ND ND	0.41 0.41 0.41 0.41 2.00	J
ndeno[1,2,3-od]pyrene sophorone aphthaiene littloberizene -Nitrosodienethylamine -Nitrosodi-n-propylamine -Nitrosodiphenylamine entholorophenol henanthrene	4.4 13 0.2 NS NS NS 1 50	0.23 ND ND ND ND ND ND ND ND 0.88	0.38 0.38 0.38 0.38 0.38 1.90 0.38	J	ND ND ND ND ND	0.42 0.42 0.42 0.42 2.10		ND ND ND ND	2.90 2.90 2.90 2.90 7.30		ND ND ND ND ND	0.41 0.41 0.41 0.41 2.10	J	ND ND ND ND ND ND	0.41 0.41 0.41 0.41 2.00 0.41	J
ndeno[1,2,3-od]pyrene sophorone laphthalene littlobenzene -Nitrosodimethylamine -Nitrosodiphenylamine -Nitrosodiphenylamine entachlorophenol henanthrene	4.4 13 0.2 NS NS NS 1	0.23 ND ND ND ND ND ND ND	0.38 0.38 0.38 0.38 0.38 1.90 0.38	J	ND ND ND ND ND ND	0.42 0.42 0.42 0.42 2.10 0.42		ND ND ND ND ND ND	2.90 2.90 2.90 2.90 7.30 2.90		ND ND ND ND ND ND	0.41 0.41 0.41 0.41 2.10 0.41	J	ND ND ND ND ND	0.41 0.41 0.41 0.41 2.00	3

Bold concentrations in shaded cells exceed the RSCOs

2) Duplicate samples collected from SH-5D and TE-4D.

mg/Kg = milligrams per kilogram (all units reported in mg/kg).

RSCOs = Recommended Soll Cleanup Objectives from the Technical and Administrative Guidance Memorandum # 4046, dated January 24, 1994.

NA = Not analyzed

NS = No Standard Conc = Concentration

MDL = Quantitation Limit

Qual = Laboratory Data Qualifier ND = The compound was not detected

B = The analyte was found in the laboratory blank and the sample. This indicates possible laboratory contamination of the sample.

J = The compound was detected at a concentration below the calibration range. The concentration is estimated.

Feet bgs = Feet below ground surface

TICs = Tentatively identified compounds

					SITE	2										
Location	T	Т —	SH-2			SH-3		-	SH-4			CULE				
Sample ID		PI-2B	SH-2-1120	07SO02	PI-2B	SH-3-112	007SO04	PI-2B	SH04-110	9075003	PLOF	SH-5 3SH05-110	0075000	Di an	SH-5D	1078002
Lab Sample No.	New York RSCOs	1	AC34438-0			AC34438-	003		AC34274-		1	AC34274-		P1-28	AC34483	
Sampling Date Matrix		1	11/20/200	7	1	11/20/20	07		11/9/200		ı	11/9/200			11/21/20	
Sample Depth (feet bgs)		1	SOLID			SOLID		1	SOLID			SOLID		1	SOLIE	
Semivolatile Organic Compo	unds (SVOCs)	Conc	3.5-4 MDL	Qual	-	5.5-6			4.5-5			3.5-4			3.5-4	
1,2,4-Trichlorobenzene	3.4	ND		Quai	Conc	MDL	Qual	Conc	MDL	Qual	Conc	MDL	Qual	Conc	MDL	Qual
1,2-Diphenylhydrazine	NS NS	ND	0.43	+	ND	0.39	-	ND	0.40		ND	19.00		ND	0.40	
2,4,5-Trichlorophenol	0.1	ND	0.43		ND	0.39	-	ND	0.40	4	ND	19.00		ND	0.40	
2,4,6-Trichlorophenol	NS NS		0.43	ļ	ND	0.39	-	ND	0.40		ND	19,00		ND	0.40	
2,4-Dichlorophenol		ND	0.43	ļ	ND	0.39		ND	0.40		ND	19.00		ND	0.40	
2,4-Dimethylphenol	0.4 NS	ND ND	0.43	-	ND	0.39	-	ND	0.40		ND	19.00		ND	0.40	
2,4-Dinitrophenol	0.2		0.43		ND	0.39		ND	0.40		ND	19.00		ND	0.40	
2,4-Dinitrotoluene		ND	1.10		ND	0.97	-	ND	0.99		ND	47.00		ND	0.99	
2,6-Dinitrotoluene	NS	ND	0.43		ND	0.39		ND	0.40		ND	19.00		ND	0.40	
2-Chloronaphthalene	1 1	ND	0.43		ND	0.39	-	ND	0.40		ND	19.00		ND	0.40	1
2-Chlorophenol	NS 0.8	ND	0.43		ND	0.39		ND	0.40		ND	19.00		ND	0.40	
2-Methylnaphthalene		ND	0.43		ND	0.39		ND	0.40	1	ND	19.00		ND	0.40	
2-Methylphenol	36.4	ND	0.43		ND	0.39	ļ	ND	0.40		ND	19.00		ND	0.40	
2-Nitroaniline	0.1	ND	0.43		ND	0.39		ND	0.40		ND	19.00		ND	0.40	
	0.43	ND	0.43		ND	0.39		ND	0.40		ND	19.00		ND	0.40	
2-Nitrophenol 3&4-Methylphenol	0.33	ND	0.43		ND	0.39	4	ND	0.40		ND	19.00		ND	0.40	
	0.9	ND	0.43		ND	0.39		ND	0.40		ND	19.00	I	ND	0.40	1
3,3'-Dichlorobenzidine 3-Nitroaniline	NS NS	ND	0.43		ND	0.39		ND	0.40		ND	19.00		ND	0.40	1
	0.5	ND	0.43		ND	0.39	1	ND	0.40		ND	19.00		ND	0.40	
4,6-Dinitro-2-methylphenol	NS NS	ND	1.10		ND	0.97	-	ND	0.99		ND	47.00		ND	0.99	
4-Bromophenyl-phenylether 4-Chloro-3-methylphenol	NS	ND	0.43		ND	0.39		ND	0.40		ND	19.00		ND	0.40	
4-Chloroaniline	0.24	ND	0.43		ND	0.39		ND	0.40		ND	19.00		ND	0.40	
	0.22	ND	0.43		ND	0.39		ND	0.40		ND	19.00		ND	0.40	
4-Chlorophenyl-phenylether	NS	ND	0.43		ND	0.39		ND	0.40		ND	19.00		ND	0.40	
4-Nitroaniline	NS	ND	0.43		ND	0.39		ND	0.40		ND	19.00		ND	0.40	
4-Nitrophenol	0.1	ND	0.43		ND	0.39		ND	0.40		ND	19.00		ND	0.40	
Acenaphthene	50	ND	0.43		ND	0.39		0.17	0.40	J	ND	19.00		ND	0.40	1
Acenaphthylene	41	ND	0.43		ND	0,39		0.12	0.40	J	ND	19.00		0.08	0.40	J
Aniline	0.1	ND	0.43		ND	0.39		ND	0.40		ND	19.00		ND	0.40	
Anthracene	50	0.10	0.43	J	ND	0.39		0.72	0.40		ND	19.00		0.10	0.40	J
Benzidine	NS	ND	0.43		ND	0.39		ND	0.40		ND	19.00		ND.	0.40	
Benzo[a]anthracene	0.224	0.59	0.43		0.04	0.39	J	2.70	0.40		ND	19.00		0.27	0.40	J
Benzo[a]pyrene	0.061	0,48	0.43		ND	0.39		2.00	0.40		ND	19.00		0.28	0.40	J
Benzo[b]fluoranthene	1.1	0.63	0.43		0.06	0.39	J	3,30	0.40		2.70	19.00	J	0.48	0.40	
Benzo[g,h,i]perylene	50	0.35	0.43	J	ND	0.39		1.00	0.40		ND	19.00		0.29	0.40	J
Benzo[k]fluoranthene	1.1	0.24	0.43	J	ND	0.39		1.20	0.40		ND	19.00		0.15	0.40	J
Benzyl alcohol	NS	ND	0.43		ND	0.97		ND	0.40		ND	19.00		ND	0.40	
Bis(2-Chloroethoxy)methane	NS	ND	0.43		ND	0.39		ND	0.40		ND	19.00		ND	0.40	
Bis(2-Chloroethyl)ether	NS	ND	0.43		ND	0.39		ND	0.40		ND	19.00		ND	0.40	
Bis(2-Chloroisopropyl)ether	NS	ND	0.43		ND	0.39		ND	0.40		ND	19.00		ND	0.40	
Bis(2-Ethylhexyl)phthalate Butylbenzylphthalate	50	0.09	0.43	J	ND	0.39		0,09	0.40	J	170.00	19.00		0.22	0.40	J
Carbazole	50	ND	0.43		ND	0.39		ND	0.40		33.00	19.00		ND	0.40	
Chrysene	NS	ND	0.43		ND	0.39		ND	0.40		ND	19.00		ND	0.40	
Dibenzo[a,h]anthracene	0.4	0.54	0.43		0.04	0.39	J	3.20	0.40		ND	19.00		0.29	0.40	j
Dibenzofuran	0.014	0.11	0.43	J	ND	0.39	-	0.37	0.40	J	ND	19.00		0.10	0.40	J
Diethylphthalate	6.2	ND	0.43		ND	0.39		ND	0.40		ND	19.00		ND	0.40	
Dimethylphthalate	7.1	ND	0.43		ND	0.39		ND	0.40		ND	19.00		ND	0.40	
Di-n-butylphthalate		ND	0.43		ND	0.39		ND	0.40		ND	19.00		ND	0.40	
Di-n-octylphthalate	8.1	ND	0.43		ND	0.39		ND	0.40		ND	19.00		0.09	0.40	J
Fluoranthene	50 50	ND 1.00	0.43		ND	0.39		ND	0.40		ND	19.00		ND	0.40	
Fluorene	50	1.00	0.43		0.07	0.39	J	4.40	0.40		ND	19.00		0.38	0.40	J
lexachlorobenzene	0.41	ND	0.43		ND	0.39		0.20	0.40	J	ND	19.00		0.04	0.40	J
Hexachlorobutadiene		ND	0.43		ND	0.39		ND	0.40		ND	19.00		ND	0.40	
Hexachlorocyclopentadiene	NS NS	ND	0.43		ND	0.39		ND	0.40		ND	19.00		ND	0.40	
lexachloroethane	NS NS	ND	0.43		ND	0.39		ND	0.40		ND	19.00		ND	0.40	
ndeno[1,2,3-cd]pyrene	NS 3.2	ND	0.43		ND	0.39		ND	0.40		ND	19.00		ND	0.40	
sophorone	3.2	0.33	0.43	J	ND	0.39		0.95	0.40		ND	19.00		0.23	0.40	J
laphthalene	4.4	ND	0.43		ND	0.39		ND	0.40		ND	19.00		ND	0.40	
litrobenzene	13	0.06	0.43	J	ND	0.39		0.15	0.40	J	ND	19.00		0.14	0.40	J
I-Nitrosodimethylamine	0.2	ND	0.43		ND	0.39		ND	0.40		ND	19.00		ND	0.40	
I-Nitroso-di-n-propylamine	NS Ne	ND	0.43		ND	0.39		ND	0.40		ND	19.00		ND	0.40	
I-Nitrosodiphenylamine	NS NS	ND	0.43		ND	0.39		ND	0.40		ND	19.00	T	ND	0.40	
entachlorophenol	NS 1	ND	0.43		ND	0.39		ND	0.40		ND	19.00	T	ND	0.40	
henanthrene	1 50	ND O AS	2.10		ND	0.97		ND	2.00		ND	95.00	T	ND	2.00	
henol		0.48 ND	0.43		ND	0.39		1.60	0.40		ND	19.00		0.22	0.40	J
yrene	0.03	ND OF	0.43		ND	0.39		ND	0.40		ND	19.00	T	ND	0.40	
otal SVOC TICs	50 NS	0.96 93.65	0.43	J	0.08	0.39		5.80	0.40		1.90	19.00	J	0.45	0.40	1
otes and Abbreviations		55.05		١ ١	51.70		J	279.40		J	43.00		J	157.80		J

Notes and Abbreviations

1) Bold concentrations in shaded cells exceed the RSCOs

2) Duplicate samples collected from SH-5D and TE-4D.

mg/kg = milligrams per kilogram (all units reported in mg/kg).
RSCOs = Recommended Soll Cleanup Objectives from
the Technical and Administrative Guidance Memorandum # 4046, dated January 24, 1994.

NA = Not analyzed NS = No Standard

Conc = Concentration

MDL = Quantitation Limit

Qual = Laboratory Data Qualifier ND = The compound was not detected

B = The analyte was found in the laboratory blank and the sample. This indicates possible laboratory contamination of the sample.

J = The compound was detected at a concentration

below the calibration range. The concentration is estimated.

Feet bgs = Feet below ground surface

TICs = Tentatively identified compounds

TABLE 2B SUMMARY OF SOIL ANALYTICAL RESULTS-SVOCS

		Н	НМТ-РС	ORT IVO		ILITY									
Lab Sample No. Sampling Date Matrix Sample Depth (feet bgs)	PI-2BSH AC	SH-6 -106-11090 C34274-00 11/9/2007 SOLID 5-5.5	04	PI-2BS	SH-7 H07-11090 C34274-00 11/9/2007 SOLID 3.5-4	05	PI-2BSI AG	SH-8 H-8-11150 C34394-00 I1/15/2007 SOLID 4.5-5	07	A	SH-9 H09-1112 C34274-0 11/12/200 SOLID	09	PI-2BS A	SH-10 H10-1114 C34355-0 11/14/200 SOLID	02
Semivolatile Organic Compounds (SVOCs)	Conc	MDL	Qual	Conc	MDL	Qual	Conc	MDL	Qual	Conc	5-5.5 MDL	-		6-6.5	
1.0 00000	ND ND	0.39		ND ND	0.40		ND ND	0.39	- Guer	ND ND	0.41	Qual	Conc ND	MDL 0.40	Qual
	ND ND	0.39		ND ND	0.40		ND	0.39		ND	0.41 0.41		ND ND	0.40	
2,4-Dichlorophenol 0.4	ND ND	0.39		ND ND	0.40		ND ND	0.39		ND ND	0.41 0.41		ND ND	0.40 0.40	

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ND 0.40

3.50 69.18

0.33 0.40

J

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41

0.1

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NS

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0.061

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1.1

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Pyrene Total SVOC TICs Notes and Abbreviations

2,4-Dimethylphenol

2,4-Dinitrophenol

2,4-Dinitrotoluene

2,6-Dinitrotoluene

2-Chlorophenol

2-Methylphenol

3&4-Methylphenol

3,3'-Dichlorobenzidine

4,6-Dinitro-2-methylphenol

4-Bromophenyl-phenylether

4-Chloro-3-methylphenol

4-Chlorophenyl-phenylether

2-Nitroaniline

2-Nitrophenol

3-Nitroaniline

4-Chloroaniline

-Nitroaniline

4-Nitrophenol

Acenaphthene

Aniline

Anthracene

Benzidine

Acenaphthylene

Benzo[a]anthracene

Benzo[b]fluoranthene

Benzo[g,h,l]perylene

Benzo[k]fluoranthene

Bis(2-Chloroethyl)ether

Butylbenżylphthalate

Dibenzo[a,h]anthracene

Carbazole

Chrysene

Dibenzofuran

Diethylphthalate

Dimethylphthalate

Di-n-butylphthalate

Di-n-octylphthalate

Hexachlorobenzene

Hexachloroethane

Isophorone

Naphthalene

Vitrobenzene

Hexachlorobutadiene

ndeno[1,2,3-cd]pyrene

N-Nitrosodimethylamine

N-Nitrosodiphenylamine

Pentachlorophenol

Phenanthrene

Phenol

N-Nitroso-di-n-propylamine

Hexachlorocyclopentadiene

Fluoranthene

Fluorene

Bis(2-Chloroisopropyl)ether

Bis(2-Ethylhexyl)phthalate

Bis(2-Chloroethoxy)methane

Benzo[a]pyrene

Benzyl alcohol

2-Chloronaphthalene

-Methylnaphthalene

1) Bold concentrations in shaded cells exceed the RSCOs

2) Duplicate samples collected from SH-5D and TE-4D.

mg/Kg = milligrams per kilogram (all units reported in mg/kg). RSCOs = Recommended Soll Cleanup Objectives from the Technical and Administrative Guidance Memorandum # 4046, dated January 24, 1994.

NA = Not analyzed NS = No Standard

Conc = Concentration

MDL = Quantitation Limit

Qual = Laboratory Data Qualifier

ND = The compound was not detected

B = The analyte was found in the laboratory blank and the sample. This indicates possible laboratory contamination of the sample

J = The compound was detected at a concentration below the calibration range. The concentration is estimated

Feet bgs = Feet below ground surface

TICs = Tentatively identified compounds

038

0.40

0.99

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0.05 40.47

					SITE	2										
Location Sample ID			SH-11 SH11-1113			SH-12 SH12-111		PI-2	TE-2 BTE-2-110	907003	PI-2E	TE-3 TE-3-1114	407SO03	PI-2F	TE-4 3TE-4-111	2078005
Lab Sample No. Sampling Date Matrix	New York RSCOs		AC34289-0 11/13/200 SOLID			AC34394- 11/12/20 SOLID	07		AC34394-0 11/9/200			AC34394- 11/14/20	005 07		AC34394- 11/16/20	-008 107
Sample Depth (feet bgs)			4-4.5		1	4.5-5		1	SOLID 4.5-5			SOLID 4.5-5			SOLID)
Semivolatile Organic Compou	nds (SVOCs)	Conc	MDL	Qual	Conc	MDL	Qual	Conc	MDL	Qual	Conc	MDL	Qual	Conc	6-6.5 MDL	Qual
1,2,4-Trichlorobenzene	3.4	ND	0.40		ND	0.39	1	ND	0.39	†	ND	0.39		ND	0.39	Quai
1,2-Diphenylhydrazine	NS	ND	0.40		ND	0.39		ND	0.39	1	ND	0.39	1	ND	0.39	+
2,4,5-Trichlorophenol	0.1	ND	0.40		ND	0.39		ND	0.39		ND	0.39	1	ND	0.39	-
2,4,6-Trichlorophenol	NS	ND	0.40	-	ND	0.39		ND	0.39		ND	0.39		ND	0.39	
2,4-Dichlorophenol 2,4-Dimethylphenol	0.4	ND	0.40		ND	0.39		ND	0.39		ND	0.39		ND	0.39	1
2,4-Dinitrophenol	NS 0.2	ND ND	0.40	-	- ND	0.39		ND	0.39	-	ND	0.39		ND	0.39	
2,4-Dinitrotoluene	NS	ND	1.00 0.40		ND ND	0.98	-	ND	0.97	-	ND	0.97	-	ND	0.97	
2,6-Dinitrotoluene	1	ND	0.40	 	ND	0.39	-	ND ND	0.39	ļ	ND	0.39		ND	0.39	-
2-Chloronaphthalene	NS	ND	0.40		ND	0.39	 	ND	0.39		ND	0.39	+	ND	0.39	-
2-Chlorophenol	0.8	ND	0.40		ND	0.39	1	ND	0.39	 	ND ND	0.39	-	ND	0.39	+
2-Methylnaphthalene	36.4	ND	0.40		ND	0.39		ND	0.39		ND	0.39	+	ND	0.39	+
2-Methylphenol	0.1	ND	0.40		ND	0.39		ND	0.39		ND	0.39	 	ND	0.39	
2-Nitroaniline	0.43	ND	0.40		ND	0.39		ND	0.39		ND	0.39		ND	0.39	-
2-Nitrophenol	0.33	ND	0.40	-	ND	0.39		ND	0.39		ND	0.39		ND	0.39	1
3&4-Methylphenol 3,3'-Dichlorobenzidine	0.9	ND	0.40		ND	0.39	-	ND	0.39		ND	0.39		ND	0.39	
3-Nitroaniline	NS 0.5	ND ND	0.40		ND	0.39		ND	0.39	-	ND	0.39		ND	0.39	
4,6-Dinitro-2-methylphenol	NS	ND	1.00		ND ND	0.39	-	ND ND	0.39	-	ND	0.39	-	ND	0.39	
4-Bromophenyl-phenylether	NS	ND	0.40		ND	0.39		ND	0.97		ND	0.97		ND	0.97	-
4-Chloro-3-methylphenol	0.24	NĎ	0.40		ND	0.39	-	ND	0.39		ND ND	0.39	-	ND	0.39	-
4-Chloroaniline	0.22	ND	0.40		ND	0.39		ND	0.39		ND	0.39	-	ND ND	0.39	-
4-Chlorophenyl-phenylether	NS	ND	0.40		ND	0.39		ND	0.39		ND	0.39	<u> </u>	ND	0.39	-
4-Nitroaniline	NS	ND	0.40		ND	0.39		ND	0.39		ND	0.39		ND	0.39	
4-Nitrophenol Acenaphthene	0.1	ND	0.40		ND	0.39		ND	0.39		ND	0.39		ND	0.39	
Acenaphthylene	50 41	ND ND	0.40		ND	0.39		ND	0.39		ND	0.39		ND	0.39	
Aniline	0,1	ND	0.40		ND ND	0.39	ļ	ND	0.39		ND	0.39		ND	0.39	
Anthracene	50	ND	0.40		ND	0.39	-	ND 0.10	0.39		ND	0.39		ND	0.39	-
Benzidine	NS	ND	0.40		ND	0.39		ND	0.39	J	ND ND	0.39		ND	0.39	-
Benzo[a]anthracene	0.224	ND	0.40		ND	0.39		0.16	0.39	J	0.10	0.39	J	ND ND	0.39	
Benzo[a]pyrene	0.061	0.12	0.40	J	ND	0.39		0.13	0.39	J	0.09	0.39	J	ND	0.39	
Benzo[b]fluoranthene Benzo[g,h,i]perylene	1.1	ND	0.40		ND	0.39		0.22	0.39	J	0.12	0.39	J	0.04	0.39	J
Benzo[k]fluoranthene	50 1.1	ND ND	0.40		ND	0.39		0.10	0.39	J	0.09	0.39	J	ND	0.39	
Benzyl alcohol	NS	ND	1.00		ND ND	0.39		0.08	0.39	J	0.05	0.39	J	ND	0.39	
Bis(2-Chloroethoxy)methane	NS	ND	0.40		ND	0.39	-	ND ND	0.97		ND ND	0.39		ND	0.97	
Bis(2-Chloroethyl)ether	NS	ND	0.40		ND	0.39		ND	0.39		ND	0.39		ND ND	0.39	-
Bis(2-Chloroisopropyl)ether	NS	ND	0.40		ND	0.39		ND	0.39		ND	0.39		ND	0.39	-
Bis(2-Ethylhexyl)phthalate	50	ND	0.40		ND	0.39		0.06	0.39	J	ND	0.39		ND	0.39	
Butylbenzylphthalate Carbazole	50	ND	0.40		ND	0.39		ND	0.39		ND	0.39		ND	0.39	
Chrysene	NS 0.4	ND ND	0.40		ND	0.39		ND	0.39		ND	0.39		ND	0.39	
Dibenzo[a,h]anthracene	0.014	ND	0.40		ND ND	0.39		0.20 ND	0.39	J	0.10	0.39	J	ND	0.39	
Dibenzofuran	6.2	ND	0.40		ND	0.39		ND	0.39		ND ND	0.39		ND	0.39	
Diethylphthalate	7.1	ND	0.40		ND	0.39		ND	0.39		ND	0.39		ND ND	0.39	
Dimethylphthalate	2	ND	0.40		ND	0.39		ND	0.39		ND	0.39		ND	0.39	
Di-n-butylphthalate	8.1	ND	0.40	I	ND	0.39		ND	0.39		ND	0.39		ND	0.39	
Di-n-octylphthalate Fluoranthene	50	ND	0.40		ND	0.39		ND	0.39		ND	0.39		ND	0.39	
Fluorene	50 50	ND ND	0.40		0.04	0.39	J	0.54	0.39		0.16	0.39	J	0.06	0.39	J
Hexachlorobenzene	0.41	ND	0.40		ND ND	0.39		ND ND	0.39		ND	0.39		ND	0.39	-
Hexachlorobutadiene	NS	ND	0.40		ND	0.39		ND	0.39		ND ND	0.39		ND	0.39	
Hexachlorocyclopentadiene	NS	ND	0.40		ND	0.39		ND	0.39		ND	0.39		ND ND	0.39	
Hexachloroethane	NS	ND	0.40		ND	0.39		ND	0.39		ND	0.39		ND	0.39	
Indeno[1,2,3-cd]pyrene	3.2	ND	0.40		ND	0.39		0.07	0.39	J	0.07	0.39	J	ND	0.39	
Isophorone Naphthalene	4.4	ND	0.40		ND	0.39		ND	0.39		ND	0.39		ND	0.39	
Naphthalene Nitrobenzene	13	ND	0.40		ND	0.39		ND	0.39		ND	0.39		ND	0.39	
N-Nitrosodimethylamine	0.2 NS	ND ND	0.40		ND	0.39		ND	0.39		ND	0.39		ND	0.39	
N-Nitroso-di-n-propylamine	NS	ND	0.40	-	ND ND	0.39		ND ND	0.39		ND	0.39		ND	0.39	
N-Nitrosodiphenylamine	NS	ND	0.40		ND	0.39		ND	0.39		ND ND	0.39		ND	0.39	
Pentachlorophenol	1	ND	1.00		ND	0.98		ND	0.39		ND ND	0.39 1.90		ND ND	0.39	
Phenanthrene	50	ND	0.40		ND	0.39		0.10	0.39	J	0.07	0.39	J	ND	0.97	
Phenol	0.03	ND	0.40		ND	0.39		ND	0.39		ND	0.39	-	ND	0.39	
Pyrene Total SVOC TICs	50 NS	ND 57.74	0.40		ND 49.00	0.39		0.43	0.39	$ \Box$	0.17	0.39	J	0.06	0.39	J
lotes and Abbreviations	110	31.14		J	48.00		J	75.71		J	88.59		J	45.86		J

- Bold concentrations in shaded cells exceed the RSCOs
 Duplicate samples collected from SH-5D and TE-4D.

mg/Kg = milligrams per kilogram (all units reported in mg/kg). RSCOs = Recommended Soll Cleanup Objectives from the Technical and Administrative Guidance Memorandum # 4046, dated January 24, 1994.

NA = Not analyzed

NS = No Standard Conc = Concentration

MDL = Quantitation Limit

Qual = Laboratory Data Qualifier ND = The compound was not detected

- B = The analyte was found in the laboratory blank and the sample. This indicates possible laboratory contamination of the sample.

 J = The compound was detected at a concentration
- below the calibration range. The concentration is

					SITE	2										
Location		T	TE-4D		T	TE-5		T	TE-6		T	TE-7		T	TE-8	
Sample ID Lab Sample No.			ΓE-4D-111			TE-5-1115			TE-6-1115		PI-2B	TE07-1109	907SO03	PI-2B	TE-8-1120	0078003
Sampling Date	New York RSCOs	1 '	AC34394-0 11/16/200			AC34394-		1 .	AC34394-0		1 .	AC34355-	001		AC34438-	
Matrix		1	SOLID	,,	1	11/16/20 SOLID	07		11/15/200		1	11/9/200		1	11/20/20	07
Sample Depth (feet bgs)		1	6-6.5		1	6.5-7		l	SOLID			SOLID		1	SOLID	
Semivolatile Organic Compou	unds (SVOCs)	Conc	MDL	Qual	Conc	MDL	Qual	Conc	4.5-5 MDL	Qual		5.5-6			5.5-6	
1,2,4-Trichlorobenzene	3.4	ND	0.39		ND	0.38	Quai	ND	_	Quai	Conc	MDL	Qual	Conc	MDL	Qual
1,2-Diphenylhydrazine	NS	ND	0.39	-	ND	0.38			0.39	-	ND	0.37	-	ND	0.40	
2,4,5-Trichlorophenol	0.1	ND	0.39	 	ND	0.38		ND	0.39	-	ND	0.37		ND	0.40	
2,4,6-Trichlorophenol	NS	ND	0.39	1	ND	0.38	 	ND	0.39		ND	0.37	4	ND	0.40	
2,4-Dichlorophenol	0.4	ND	0.39	 	ND	0.38	-	ND	0.39	-	ND	0.37	-	ND	0.40	-
2,4-Dimethylphenol	NS	ND	0.39	1	ND	0.38	 	ND	0.39		ND	0.37	-	ND	0.40	
2,4-Dinitrophenol	0.2	ND	0.97	 	ND	0.96		ND	0.39	-	ND	0.37		ND	0.40	-
2,4-Dinitrotoluene	NS	ND	0.39	1	ND	0.38	+	ND	0.98		ND	0.94		ND	1.00	-
2,6-Dinitrotoluene	1	ND	0.39	 	ND	0.38	+	ND	0.39		ND	0.37		ND	0.40	
2-Chloronaphthalene	NS	ND	0.39		ND	0.38	+	ND ND	0.39	-	ND	0.37		ND	0.40	
2-Chlorophenol	0.8	ND	0.39		ND	0.38	+		0.39		ND	0.37	-	ND	0.40	
2-Methylnaphthalene	36.4	ND	0.39	-	ND	0.38	-	ND	0.39	-	ND	0.37	-	ND	0.40	-
2-Methylphenol	0.1	ND	0.39		ND	0.38	 	ND	0.39		ND	0.37	-	ND	0.40	
2-Nitroaniline	0.43	ND	0.39		ND	0.38		ND ND	0.39		ND	0.37		ND	0.40	
2-Nitrophenol	0,33	ND	0.39		ND	0.38		-	0.39	-	ND	0.37	-	ND	0.40	
3&4-Methylphenol	0.9	ND	0.39	<u> </u>	ND	0.38	 	ND	0.39	 	ND	0.37		ND	0.40	ļ.
3,3'-Dichlorobenzidine	NS	ND	0.39	 	ND	0.38	 	ND	0.39	 	ND	0.37		ND	0.40	-
3-Nitroaniline	0.5	ND	0.39		ND	0.38	 	ND	0.39		ND	0.37	 	ND	0.40	
4,6-Dinitro-2-methylphenol	NS	ND	0.97	-	ND	0.38		ND	0.39		ND	0.37		ND	0.40	
4-Bromophenyl-phenylether	NS	ND	0.39	-	ND	0.96		ND	0.98	 	ND	0.94		ND	1.00	ļ
4-Chloro-3-methylphenol	0.24	ND	0.39	 	ND	0.38		ND	0.39		ND	0.37	ļ	ND	0.40	
4-Chloroaniline	0.22	ND	0.39	-	ND	0.38	 	ND ND	0.39		ND	0.37	1	ND	0.40	
4-Chlorophenyl-phenylether	NS	ND	0.39		ND				0.39		ND	0.37		ND	0.40	
4-Nitroaniline	NS	ND	0.39		ND	0.38		ND	0.39		ND	0.37		ND	0.40	
4-Nitrophenol	0.1	ND	0.39		ND	0.38		ND	0.39		ND	0.37		ND	0.40	
Acenaphthene	50	ND	0.39		ND	0.38		ND	0.39		ND	0.37		ND	0.40	
Acenaphthylene	41	ND	0.39		ND	0.38		ND	0.39		ND	0.37		0.70	0.40	
Aniline	0.1	ND	0.39		ND	0.38		ND	0.39		ND	0.37		0.07	0.40	J
Anthracene	50	ND	0.39		ND			ND	0.39		ND	0.37		ND	0.40	
Benzidine	NS	ND	0.39		ND	0.38		ND	0.39		ND	0.37		1.60	0.40	
Benzo[a]anthracene	0.224	ND	0.39		0.06	0.38	J	ND 0.07	0.39	-	ND	0.37		ND	0.40	
Benzo[a]pyrene	0.061	ND	0.39		0.06	-		0.07	0.39	J	0.04	0.37	J	4.50	0.40	
Benzo[b]fluoranthene	1.1	0.04	0.39	J	0.06	0.38	J	0.07	0.39	J	0.05	0.37	J	4.40	0.40	
Benzo[g,h,i]perylene	50	ND	0.39		ND	0.38	J	0.10	0.39	J	0.06	0.37	J	5,60	0.40	
Benzo[k]fluoranthene	1.1	ND	0.39		ND	0.38		0.06	0.39	J	ND	0.37		2.50	0.40	
Benzyl alcohol	NS	ND	0.97		ND	0.96		ND	0.39		ND	0.37		1.80	0.40	
Bis(2-Chloroethoxy)methane	NS	ND	0.39		ND	0.38		ND	0.39		ND	0.94		ND	0.40	
Bis(2-Chloroethyl)ether	NS	ND	0.39		ND	0.38		ND ND	0.39		ND	0.37		ND	0.40	
Bis(2-Chioroisopropyl)ether	NS	ND	0.39		ND	0.38		ND ND	0.39		ND	0.37		ND	0.40	
Bis(2-Ethylhexyl)phthalate	50	ND	0.39		ND	0.38	*******	ND ND	0.39		ND	0.37		ND	0.40	
Butylbenzylphthalate	50	ND	0.39		ND	0.38		ND ND	0.39		ND	0.37		ND	0.40	
Carbazole	NS	ND	0.39		ND	0.38		ND ND	0.39		ND	0.37		ND	0.40	
Chrysene	0,4	ND	0.39	-	0.07	0.38	J	0.08	0.39	J	ND	0.37		0.90	0.40	
Dibenzo[a,h]anthracene	0.014	ND	0.39		ND	0.38		ND ND	0.39		0.04	0.37	J	3.90	0.40	
Dibenzofuran	6.2	ND	0.39		ND	0.38		ND	-		ND	0.37		0.83	0.40	
Diethylphthalate	7.1	ND	0.39		ND	0.38		ND	0.39		ND	0.37		0.35	0.40	J
Olmethylphthalate	2	ND	0.39		ND	0.38		ND	0.39		ND ND	0.37		ND	0.40	
Oi-n-butylphthalate	8.1	ND	0.39		ND	0.38		ND	0.39		ND ND	0.37		ND	0.40	
Oi-n-octylphthalate	50	ND	0.39		ND	0.38		ND	0.39		ND	0.37		ND	0.40	
luoranthene	50	0.06	0.39	J	0.16	0.38	J	0.10	0.39	J	0.07	0.37		ND	0.40	
luorene	50	ND	0.39		ND	0.38		ND	0.39		ND	0.37	J	7.00	0.40	
lexachlorobenzene	0.41	ND	0.39		ND	0.38		ND	0.39			0.37		0.60	0.40	
lexachlorobutadiene	NS	ND	0.39		ND	0.38		ND	0.39		ND	0.37		ND	0.40	
lexachlorocyclopentadiene	NS	ND	0.39		ND	0.38		ND	0.39		ND	0.37		ND	0.40	
lexachloroethane	NS	ND	0.39		ND	0.38		ND	0.39		ND ND	0.37		ND	0.40	
ndeno[1,2,3-cd]pyrene	3.2	ND	0.39		ND	0.38		0.06	0.39	J		0.37		ND	0.40	
sophorone	4.4	ND	0.39		ND	0.38		ND	0.39		ND ND	0.37		2.40	0.40	
laphthalene	13	ND	0.39		ND	0.38		ND	0.39	-	ND	0.37		ND OCT	0.40	
litrobenzene	0.2	ND	0.39		ND	0.38		ND	0.39			0.37		0.67	0.40	
I-Nitrosodimethylamine	NS	ND	0.39		ND	0.38		ND	0.39		ND	0.37		ND	0.40	
I-Nitroso-di-n-propylamine	NS	ND	0.39		ND	0.38		ND	0.39		ND	0.37		ND	0.40	
I-Nitrosodiphenylamine	NS	ND	0.39		ND	0.38		ND	0.39	+	ND	0.37		ND	0.40	
entachlorophenol	1	ND	0.97		ND	0.96		ND	2.00		ND	0.37		ND	0.40	
Phenanthrene	50	ND	0.39		0.17	0.38	J	0.06	0.39		ND 0.04	0.94		ND	2.00	
henol	0.03	ND	0.39		ND ND	0.38		ND ND	0.39		0.04 ND	0.37	J	5.90	0.40	
yrene	50	0.06	0.39	J	0.14	0.38	J	0.11	0.39	-, $+$	ND 0.07	0.37		ND 7.00	0.40	
otal SVOC TICs	NS	46.50		J	42.18	5.50	J	84.85	0.39	J	0.07 36.02	0.37	J	7.20	0.40	
otes and Abbreviations								5 1.55			30.02		J	74.30		J

Bold concentrations in shaded cells exceed the RSCOs

2) Duplicate samples collected from SH-5D and TE-4D.

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Feet bgs = Feet below ground surface

TICs = Tentatively identified compounds

	·						SITE
Location Sample ID			TE-9		T	TE-10	
Lab Sample No.			TE09-1112 AC34274-0			TE10-112	
Sampling Date	New York RSCOs	1	11/12/200		1	AC34483 11/21/20	
Matrix		1	SOLID		1	SOLID	
Sample Depth (feet bgs)	1 (0)(0.0.)	_	5.5-6			6.5-7	
Semivolatile Organic Comp		Conc	MDL	Qual	Conc	MDL	Qual
1,2,4-Trichlorobenzene 1,2-Diphenylhydrazine	3.4	ND	0.40	ļ	ND	0.38	_
2,4,5-Trichlorophenol	NS 0.1	ND ND	0.40	 	ND	0.38	
2,4,6-Trichlorophenol	NS	ND	0.40		ND ND	0.38	-
2,4-Dichlorophenol	0.4	ND	0.40	 	ND	0.38	+
2,4-Dimethylphenol	NS	ND	0.40		ND	0.38	-
2,4-Dinitrophenol	0.2	ND .	1.00		ND	0.96	
2,4-Dinitrotoluene	NS	ND	0.40		ND	0.38	1
2,6-Dinitrotoluene	1	ND	0.40		ND	0.38	
2-Chloronaphthalene	NS	ND	0.40		ND	0.38	
2-Chlorophenol	0.8	ND	0.40		ND	0.38	
2-Methylnaphthalene 2-Methylphenol	36.4	ND	0.40		ND	0.38	
2-Nitroaniline	0.1	ND ND	0.40		ND	0.38	-
2-Nitrophenol	0.43	ND	0.40		ND ND	0.38	
3&4-Methylphenol	0.9	ND	0.40		ND	0.38	+
3,3'-Dichlorobenzidine	NS	ND	0.40	 	ND	0.38	1
3-Nitroaniline	0.5	ND	0.40		ND	0.38	
4,6-Dinitro-2-methylphenol	NS	ND	1.00		ND	0.96	
4-Bromophenyl-phenylether	NS	ND	0.40		ND	0.38	
4-Chloro-3-methylphenol	0.24	ND	0.40		ND	0.38	
4-Chloroaniline	0.22	ND	0.40		ND	0.38	
4-Chlorophenyl-phenylether 4-Nitroaniline	NS NS	ND	0.40		ND	0.38	
4-Nitrophenol	NS 0.1	ND	0.40		ND	0.38	-
Acenaphthene	50	ND ND	0.40		ND	0.38	
Acenaphthylene	41	ND	0.40		ND ND	0.38	
Aniline	0.1	ND	0.40		ND	0.38	-
Anthracene	50	ND	0.40		0.04	0.38	J
Benzidine	NS	ND	0.40		ND	0.38	
Benzo[a]anthracene	0.224	ND	0,40		0.25	0.38	J
Benzo[a]pyrene	0.061	ND	0.40		0.23	0.38	J
Benzo[b]fluoranthene	1.1	ND	0.40		0.35	0.38	J
Benzo[g,h,i]perylene Benzo[k]fluoranthene	50	ND	0.40		0.19	0.38	J
Benzyl alcohol	1.1 NS	ND ND	0.40 1.00		0.10	0.38	J
Bis(2-Chloroethoxy)methane	NS NS	ND	0.40		ND ND	0.38	
Bis(2-Chloroethyl)ether	NS	ND	0.40		ND	0.38	
Bis(2-Chloroisopropyl)ether	NS	ND	0.40		ND	0.38	
Bis(2-Ethylhexyl)phthalate	50	ND	0.40		0.98	0.38	
Butylbenzylphthalate	50	ND	0.40		ND	0.38	
Carbazole	NS	ND	0.40		ND	0.38	
Chrysene	0.4	ND	0.40		0.28	0.38	J
Dibenzo[a,h]anthracene Dibenzofuran	0.014	ND	0.40		0.05	0.38	J
Diethylphthalate	6.2 7.1	ND ND	0.40		ND	0.38	
Dimethylphthalate	2	ND	0.40		ND ND	0.38	
Di-n-butylphthalate	8.1	ND	0.40		ND	0.38	
Di-n-octylphthalate	50	ND	0.40		ND	0.38	
luoranthene	50	ND	0.40		0.29	0.38	J
luorene	50	ND	0.40		ND	0.38	
lexachlorobenzene	0.41	ND	0.40		ND	0.38	
lexachlorobutadiene	NS	ND	0.40		ND	0.38	
lexachlorocyclopentadiene	NS NS	ND	0.40		ND	0.38	
ndeno[1,2,3-cd]pyrene	NS 3.2	ND ND	0.40		ND 0.45	0.38	
sophorone	3.2 4.4	ND ND	0.40	+	0.15 ND	0.38	J
laphthalene	13	ND	0.40		ND 0.11	0.38	J
litrobenzene	0.2	ND	0.40		ND ND	0.38	<u> </u>
-Nitrosodimethylamine	NS	ND	0.40		ND	0.38	
-Nitroso-di-n-propylamine	NS	ND	0.40		ND	0.38	
-Nitrosodiphenylamine	. NS	ND	0.40		ND	0.38	
entachlorophenol	1	ND	1.00		ND	1.90	
henanthrene	50	ND	0.40		0.19	0.38	J
henol	0.03	ND	0.40	1	ND	0.38	

Pyrene Total SVOC TICs Notes and Abbreviations

1) Bold concentrations in shaded cells exceed the RSCOs

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contamination of the sample.

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Feet bgs = Feet below ground surface

TICs = Tentatively identified compounds

Location Sample No. Sampling Date Matrix Sample Depth (feet bgs)	New York RSCOs	PI-A2-SI AC	2ASE-1 PI-A2-SE1-081307SO0A AC33007-001 8/13/2007 SOLID 6-6.5	75004	PI-A2-S AC	2ASE-6 PI-A2-SE6-091307SO03 AC33007-002 9/13/2007 SOLID 4.5-5	7SO03 32	PI-A2-S A(2ASE-7 PI-A2-SET-091307SO04 AC33007-003 9/13/2007 SOLID 4-4.5	07SO04	PI-A2-S A(2ASE-7 PI-A2-SE7-091307SO07 AC33007-004 9/13/2007 SOLID 6-6.5	2002	PI-A2-SE AC: 9/	2ASE-8 1-A2-SE8-091307SO0: AC33007-005 9/13/2007 SOLID 4-4 5	SO03
		Conc	MDL	Qual	Conc	MDL Qual	Qual	Conc	Conc MDL	Qual	Conc	Conc MDL Qual	Pino	Conc	-	G
Total Petroleum Hydrocarbons (418.1)	SN	420	62		270	40		3800	260		45	41	╀	25000	-11-	3
% Solids		55			85			65			82	-	1		200	I

Sample ID Lab Sample No. Sampling Date Matrix Sample Depth (feet bgs)	New York RSCOs	PI-A2-SE AC	2ASE-8 I-A2-SE8-091307S006 AC33007-006 9/13/2007 SOLID 6-6.5	7SO06 6	PI-A2-SI AC 9	2ASE-9 PI-A2-SE9-091307SO03 AC33007-007 9/13/2007 SOLID 3.5-4	75003	PI-A2-SI AC 9	2ASE-9 PI-A2-SE9-091307SO09 AC33007-008 9/13/2007 SOLID 6-6.5	7SO09 8	PI-2ASE AC 9	2ASE-10 PI-2ASE10A-091707SO3 AC33058-001 9/17/2007 SOLID 3.5-4	07503	2ASE-10 PI-2ASE10A-091707SO5 AC33058-002 91712007 SOLID 5 5-6	2ASE-10 SE10A-09170 AC33058-002 9/17/2007 SOLID 5.5-6	07.SO5 2
		Conc	MDL	Qual	Conc	MDL	Qual	Conc MDL	MDL	Qual	Conc	-	leno	Conc		- GI
Total Petroleum Hydrocarbons (418.1)	NS	300	40		11000	1100		42	41		38000	1300				
% Solids		85			92			82			63		Ī	2 5	7	I

Location Sample ID Lab Sample No. Sampling Date Matrix Sample Depth (feet bgs)	New York RSCOs	PI-A2SE AC	2ASE-11 SE11B-09180' AC33103-001 9/18/2007 SOLID 3.5-4	307SO3	2ASE-11 PI-AZSE11B-091807SO3 AC33103-001 SOLID SOLID 2ASE-11 PI-AZSE-11 AC33103-002 9/18/2007 SOLID 3.5-4 5-5.5	2ASE-11 SE11B-09180 AC33103-002 9/18/2007 SOLID 5-5.5	07.806	2ASE-12 PI-A2SE-12-091807SO3 AC33103-003 9/18/2007 SOLID 3.3-3.8	2ASE-12 SE-12-091807 AC33103-003 9/18/2007 SOLID 3.3-3.8	3	PI-A2SE- AC3 9/	2ASE-12 PI-A2SE-12-091807SO5 AC33103-004 9/18/2007 SOLID 4.3-4.8		2ASE-13 PI-A2SE13A-091407SO3 AC33039-001 9/14/2007 SOLID 3 5-4	2ASE-13 SE13A-091407 AC33039-001 9/14/2007 SOLID 3.5-4	7503
		Conc	MDL	Qual	Conc	MDL	Qual	Conc MDI		C	Conc	I CM	Je I	7	1	Ġ
Total Petroleum Hydrocarbons (418.1)	SN	3500	240		410	43		16000			85	300	3	2002	101	TO SI
% Solids		7.1			79			87		Ī	20 00	P	7	1	200	Ī
	The STATE OF THE PERSON SHOWING	-	-	_	-			5			3			90	-	-

Location Sample ID Lab Sample No. Sampling Date Matrix Sample Depth (feet bgs)	New York RSCOs	2ASE-13 E13A-0914 S33039-00 9/14/2007 SOLID 4-4.5	PI-2A8	2ASE-14 PI-2ASE14-110507S004 AC34093-002 11/5/2007 SOLID 7.5-8	2ASE-15 PI-2ASE15-110507S002 AC34093-003 11/5/2007 SOLID 3.5-4	2ASE-16 PI-2ASE16-110507SO03 AC34093-004 115/2007 SOLID 4-4.5
		Conc MDL Qual	Conc MDL Qual	Conc MDL Qual	Conc MDL Qual	Conc
Total Petroleum Hydrocarbons (418.1)	NS	95 40	310 41	170 41	1400 40	520 44
% Solids		85	ΑN	AN	O AZ	NA 41
Notes and Abbresidations						ζ.

mg/Kg = milligrams per kliogram (all units reported in mg/Kg).
RSCOs = Recommended Soil Cleanup Objectives from
the Technical and Administrative Guidance
Memorandum # 4046, dated January 24, 1994. 1) Duplicate samples collected from SH-5D and TE-4D

NA = Not analyzed NS = No Standard

Conc = Concentration

MDL = Quantitation Limit
Qual = Laboratory Data Qualifier
ND = The compound was not detected
Feet bgs = Feet below ground surface
TPHC = Total Petroleum Hydrocarbons

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SUMMARY OF SOIL ANALYTICAL RESULTS-TPHC HMMT-PORT IVORY FACILITY SITE 2

Location Sample ID Lab Sample No. Sampling Date Matrix Sample Depth (feet bgs)	New York RSCOs	PI-2ASI A(2ASE-17 E17-11070 C34160-00 11/7/2007 SOLID 4-4.5		2ASE-17 PI-2ASE17-110707SO04 AC34160-002 I1772007 SOLID 6.5-7	2ASE-17 SE17-1107073 AC34160-002 11/7/2007 SOLID 6.5-7		PI-2ASE AC	2ASE-18 PI-ZASE18-110707SC02 AC34160-003 11/7/2007 SOLID 3-3.5		PI-2ASE AC	2ASE- 19 PI-2ASE19-110907SC03 AC34274-008 11/9/2007 SOLID 2.5-3	75003	PI-2B-W AC 1	WA-1 PI-2B-WA1-110507SO03 AC34093-005 11/5/2007 SOLID 4-4.5	75003 35
		Sono	MDL	Qual	Conc	MDL	Qual	Conc MDL		Qual	Conc	MDL	Oual	Conc		G
1 otal Petroleum Hydrocarbons (418.1)	NS	310	42	•	110	40		110	39		3300	200		120		
% Solids		81			84			87			AN			NIA	+	

Sample ID Lab Sample No. Sampling Date Matrix Sample Depth (feet bgs)	New York RSCOs	AOC AC	WA-2 (OCWA-2 (3.5-4) AC25567-001 9/11/2006 SOLID 3.5-4	<u></u>	AOC AC	WA-3 OCWA-3 (3-3.5) AC25567-002 9/11/2006 SOLID 3-3.5	3.5) 32	00A AC 8	WA-4 AOCWA-4 (3-3.5) AC25567-003 9/11/2006 SOLID 3-3.5	3.5)	PI-2BWA	WA-5 PI-2BWA65-110807SO03 AC34275-001 11(8/2007 SOLID A 4 5	75003	PI-2BWA AC	WA-5 PI-2BWA05-110807SO04 AC34275-002 11/8/2007 SOLID SOLID	S004
		Conc	iΩΝ	Z Z	ouo'	iCM	61.0	Con		1					0.5-7	1
The Charles of the All		1			2100	100	Kaai			Guai	Conc MUL	MUL	Qual	Conc	MDL	Qual
dai r eu oreum nyurocarbons (418.1)	NS	160	₹	_	9	۷ Z	_	570	ΑN	-	1700	5.P		080	Ç	
		81			82			79		1	2	2	1	230	5	T

MDL Qual Conc MDL Qual Conc MDL Qual Conc NA J 250 NA J 260 NA J 340 NA J 100 83 79 34 34 NA J 70 70	Sample No. Sampling Date Matrix Sample Depth (feet bgs)	New York RSCOs	WA-6 AOCWA-6 (3.5-4) AC25567-004 9/11/2006 SOLID 3.5-4	WA-7 AOCWA-7 (4-4 AC25567-00: 9/11/206 SOLID 4-4.5	1 (1) (1) (1)	WA-9 AOCWA-9 (3-3.5) AC25567-007 9/11/2006 SOILD 3-3.5	WA-10 AOCWA-10 (3-3.5) AC25567-008 9/11/2006 SOILD 3-3.5
Toleum Hydrocarbons (418.1) NS 120 NA J 250 NA J 80 83	T-4-1		MUL	Conc MDL Qual	Conc MDL Qual	MDL	Conc MDL Qual
% Solids	1 otal Petroleum Hydrocarbons (418.1)	NS	120 NA J	250 NA J	260 NA J	340 NA	L
	% Solids		80	83	62	84	62

Location Sample ID Lab Sample No. Sampling Date Matrix Sample Depth (feet bgs)	New York RSCOs	WA-11 AOCWA-11 (3-3.5) AC25567-009 9/11/2006 SOLIDS 3-3.5	3.5)	PI-2BWA7	WA-12 I-2BWA12-110907SO04 AC34274-006 11/9/2007 SOLID 4.5-5	7SO04 8	PI-2BW/	WA-13 WA13-110807 AC34275-003 11/8/2007 SOLID 3-3.5	WA-13 PI-2BWA13-110807SO02 AC34275-003 118/2007 SOLID 3-3.5		WA-14 PI-2BWA14-110807SO02 AC34275-004 11/8/2007 SOLID 3-3-5	75002 4	WA-15 PI-2BWA15-110707SO04 AC34160-004 11/7/2007 SOLID R-6-6-6	WA-15 VA15-110707 AC34160-004 11/7/2007 SOLID	78004
		Conc MDL	Qual	Conc	MDL	Oual	Conc	C N	G	7000	M Jacob		1	-	
Total Petroleum Hydrocarbons (418 1)	S.N	ANA NA	-	60	14		2077		1000	2	אוטר		Conic	MUL	Gual
% Solide		070	,	0	+		2001	41		780	39		06	43	
2000	Control of the last of the las	6/		¥ X			¥			AN			ca		T
Notes and Abbreviations								-	-	-	-		3		

1) Duplicate samples collected from SH-5D and TE-4D mg/Kg = milligrams per kilogram (all units reported in mg/Kg). RSCOs = Recommended Soil Cleanup Objectives from the Technical and Administrative Guidance Memorandum # 4046, dated January 24, 1994.

NA = Not analyzed NS = No Standard

Conc = Concentration

MDL = Quantitation Limit

Qual = Laboratory Data Qualifier
ND = The compound was not detected
Feet bgs = Feet below ground surface
TPHC = Total Petroleum Hydrocarbons

Conc MDL Qual Conc <th>Location Sample ID ab Sample No. Sampling Date: Matrix Sample Depth (feet bgs)</th> <th>New York RSCOs</th> <th>PI-2BWA AC:</th> <th>WA-16 PI-2BWA16-110807SC03 AC34275-005 11812007 SOLID 4.5-5</th> <th>O03</th> <th>WA-17 PI-2BWA17-110907SO01 AC34274-007 11/9/2007 SOLID 1.5-2</th> <th>997SO01 007 37</th> <th>PI-2B</th> <th>SH-1 SH01-110907; AC34274-001 11/9/2007 SOLID 4-4.5</th> <th>75003</th> <th>PI-2BSH- AC3 11/</th> <th>SH-2 N-2BSH-2-112007SO02 AC34438-002 11/20/2007 SOLID 3 5-4</th> <th></th> <th>SH-3 PI-2BSH-3-112007SO04 AC34438-003 11/20/2007 5 F. F.</th> <th>.007SO04 -003 107</th>	Location Sample ID ab Sample No. Sampling Date: Matrix Sample Depth (feet bgs)	New York RSCOs	PI-2BWA AC:	WA-16 PI-2BWA16-110807SC03 AC34275-005 11812007 SOLID 4.5-5	O03	WA-17 PI-2BWA17-110907SO01 AC34274-007 11/9/2007 SOLID 1.5-2	997SO01 007 37	PI-2B	SH-1 SH01-110907; AC34274-001 11/9/2007 SOLID 4-4.5	75003	PI-2BSH- AC3 11/	SH-2 N-2BSH-2-112007SO02 AC34438-002 11/20/2007 SOLID 3 5-4		SH-3 PI-2BSH-3-112007SO04 AC34438-003 11/20/2007 5 F. F.	.007SO04 -003 107
roleum Hydrocarbons (418.1) NS 18000 1500 2600 210 41 340 44 NA NA NA NA NA NA NA NA			Conc	-	100	Sonc MDL	Oual	Conc		+-	000	idw	+	3	-
NA NA NA NA NA NA NA NA	otal Petroleum Hydrocarbone (418 1)	NIC	40000	4500	_	0000				-11	2	ואוטר	4	MUL	Cuai
AN	om i cacioni i jaiocalpons (+10.1)	SN.	0000	0000				190	41		340	44	L	40	
	Solids		ΑN	41		NA		AN			AN		1 2	7	

Location Sample ID Lab Sample No. Sampling Date Matrix Sample Depth (feet bgs)	New York RSCOs	SH4 PI-2BSH04-110907S003 AC34274-002 11/9/2007 SOLID 4.5-5	SH-4 SH04-110907Si AC34274-002 11/9/2007 SOLID 4.5-5		SH-5 1-2BSH05-1 AC3427 11/9/2 SOL 3.5-	SH-5 PI-2BSH05-110907SO03 AC34274-003 11/9/2007 SOLID 3.5-4		SH-5D PI-2BSH5D-112107S002 AC34483-002 1121/2007 SOLID		PI-2BSHC AC3	SH-6 PI-2BSH06-110907SO04 AC34274-004 11/9/2007 SOLID 5-5-5		PI-2BSH0 AC3 11	SH-7 PI-2BSH07-110907S002 AC34274-005 11/9/2007 SOLID	S002
		Conc	MDL	Qual	Conc	MDL Qual	al Conc	MDL	Qual	Conc	-	Oual	Conc	-	G
Total Petroleum Hydrocarbons (418.1)	NS	650	40	•	490	39	1400	40		270	₽	╟	1	╁	3
% Solids		NA			۷A		Ϋ́		-	AN		-	S V		
															1
Sample No. Sample No. Sampling Date Matrix Sample Depth (feet bgs)	New York RSCOs		SH-8 SH-8-111507SC AC34394-007 11/15/2007 SOLID 4.5-5 MDL Q		SH-9 PI-2BSH09-11 AC3427- 11/12/2 SOLL 5-5.	SH-9 PI-2BSH09-111207SO03 AC34274-009 11/12/2007 SOLID 5-5.5 Conc MDL Qual		SH-10 410-111407 C34355-002 11/14/2007 SOLID 6-6.5 MDL		PI-2BSH1 AC3 11/ 5	SH-11 PI-2BSH11-111307SO03 AC34289-001 11/13/2007 SOLID 4-4.5 Conc MDL Qual		PI-2BSH12 AC34 11/1 S S	SH-12 PI-2BSH12-111207SO03 AC34394-004 11/12/2007 SOLID 4.5-5 Gonc MDL Qual	7.5003 4 Qual
of Colida	CN	1	40		73	41	120	6		130	41	-	77	40	
70 SOlids		AA		_	¥		84			V N		1	414	2	T

Location Sample ID Lab Sample No. Sampling Date Matrix Sample Depth (feet bgs)	New York RSCOs	PI-2BTE AC3 11	TE-2 PI-2BTE-2-110907003 AC34394-002 11/9/2007 SOLID 4.5-5	2003	PI-2BTE AC:	TE-3 PI-2BTE-3-111407S003 AC34384-005 11/14/2007 SOLID 4.5-5	7S003 5	PI-2BTE AC	TE-4 1-2BTE-4-111207SO05 AG34394-008 11/162007 SOLID 6-6.5	7SO05	PI-2BTE. AC	TE4D PI-2BTE4D-111407S005 AC34394-009 11/16/2007 SOLID 6-6-5	2005	PI-2BTE-6 AC3.	TE-5 PI-2BTE-5-111507SO05 AC34394-010 11/16/2007 SOLID 6 5-7	3005
		Conc	MDL	Qual	Conc	MDL	Oual	Conc	GM	C C	2000	MPI		000	L	
Total Petroleum Hydrocarbons (418.1)	SN	200	40		470	0,		7.			2100	101		2002	MUL	Guai
% Solids		200	}	1	2	2		/4	40		88	40		66	39	
	CONTROL OF THE PERSON NAMED IN COLUMN NAMED IN	¥N.			ν Σ			ž			¥			ΔN	-	
Notes and Abbreviations									_					1,74		

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120

Uuplicate samples collected from SH-5D and TE-4D mg/Kg = milligrams per kilogram (all units reported in mg/Kg).
 RSCOs = Recommended Soil Cleanup Objectives from

the Technical and Administrative Guidance

Memorandum # 4046, dated January 24, 1994. NA = Not analyzed

NS = No Standard

MDL = Quantitation Limit Conc ≈ Concentration

Qual = Laboratory Data Qualifier ND = The compound was not detected

Feet bgs = Feet below ground surface TPHC = Total Petroleum Hydrocarbons

Oepth (feet bgs) 4.5-5 Conc MDL Qual Coleum Hydrocarbons (418.1) NS 280 40 110	RSCOs 11/15/2007	New York AC34394-006	PI-2BTE07-110907SO03 AC34355-001 1109/2007 SOLID 5.5-6 Conc MDL Qual		TE-6 E-6-11150 C34394-0 11/15/200 SOLID 4.5-5 MDL 40	PI-2BT A(1 Conc 280	New York RSCOs NS	Location Sample ID Lab Sample No. Sampling Date Matrix Sample Depth (feet bgs)
<.2	SOLID SOLID SOLID SOLID SOLID 4.5-5 5.5-6 S.5-6 1/15/2007 11/19/2007 11/19/2007 SOLID SOLID SOLID SOLID SOLID 5.5-6 Conc MDL Qual Conc MDL Conc Conc MDL Conc MDL Conc Conc MDL Conc Conc MDL Conc C	88			Ϋ́		% Solids	
V.V.	SOLID SOLID SOLID SOLID SOLID 4.5-5 5.5-6 Solid So	11/15/2007 11/19/2007 11/19/2007 SOLID 88			ž		% Solids	
		PSCOs 11/15/2007	SOLID		SOLID		,	Matrix
New York AC34394-006 RSCOs 11/15/2007 SOLID	New York AC34394-006		PI-2BTE07-110907SO	075003	E-6-1115(PI-2BT		Sample ID
PI-2BTE-6-11507S003 No. New York AC34394-006 Nate RSCOs SOLID	PI-2BTE-6-111507SO03 New York AC34394-006	PI-2BTE-6-111507S003	TE-7		TE-6			Location

	The second secon			
Location		TE-8		
Sample ID		PI-2BTE-8-112007SO03	75003	
Lab Sample No.	, To	AC34438-001	-	
Sampling Date	New TOR	11/20/2007		
Matrix	SOCOS	SOLID		
Sample Depth (feet bgs)		5.5-6		
		Conc MDL	Qual	
Total Petroleum Hydrocarbons (418.1)	SN	54 34		
% Solids		AN		
			-	

TE-9 3TE09-111207 AC34274-010 11/12/2007 SOLID 5.5-6 c MDL			
New York RSCOs			TE-9
New York RSCOs		PI-2BTE	E09-111207SO
RSCOs SOLID S.5-6 Conc MDL NS 72 41	7	¥	334274-010
SOLID SOLID 5.5-6 Conc MDL NS 7.2 41	w rork		1/12/2007
5.5-6 Conc MDL NS 72 41	soos		SOLID
Conc MDL NS 72 41			5.5-6
SN		Conc	MDL Qual
	NS	72	41
		Α̈́	
	SSC NS	s s	

		The second secon
Location		TE-10
Sample ID		PI-2BTE10-112107SO04
Lab Sample No.	Men. Ved.	AC34483-001
Sampling Date	New TOLK	11/21/2007
Matrix	SONOR	SOLID
Sample Depth (feet bgs)		6.5-7
		Conc MDL Qual
Total Petroleum Hydrocarbons (418.1)	SN	68 39
% Solids		NA
M-4		CHARLES AND DESCRIPTION OF THE PROPERTY OF THE

Notes and Abbreviations
1) Duplicate samples collected from SH-5D and TE-4D mg/Kg = milligrams per kilogram (all units reported in mg/Kg).

RSCOs = Recommended Soil Cleanup Objectives from

Memorandum # 4046, dated January 24, 1994. the Technical and Administrative Guidance

NA = Not analyzed NS = No Standard

Conc = Concentration

MDL = Quantitation Limit

Qual = Laboratory Data Qualifier ND = The compound was not detected

Feet bgs = Feet below ground surface TPHC = Total Petroleum Hydrocarbons



TPHC concentrations ranged from 80 mg/kg at WA-12 to 18,000 mg/kg at WA-16. No RSCO has been established for TPHC. A site-specific concentration of 5,000 mg/kg has been established for the HHMT-Port Ivory Facility. The presence or absence of mobile LNAPL should be investigated where this concentration is exceeded. At AOC-Western Area, TPHC exceeded 5,000 mg/kg at only AOCWA-16.

AOC-Area 2A Southeast Soil Sampling Analytical Results

One confirmatory soil sample was collected from sample 2ASE-2 and analyzed for PAH compounds. The sample was collected as close as possible to the original sampling location and depth at WAW-2S. The analytical results indicate that benzo(a)pyrene and dibenzo(a,h)anthracene were the only PAH compounds detected at concentrations above their respective RSCOs. However, these compounds were detected at similar concentrations at other portions of the HHMT-Port Ivory Facility. Total SVOCs were detected at a concentration of 2.17 mg/kg, well below the RSCO of 500 mg/kg. SVOCs TICs were detected at a concentration of 80.6 mg/kg. As the magnitude of the soil impacts at 2ASE (WAW-2S) is similar to that throughout the site-wide historic fill, soil samples were not analyzed from step-out locations A2ASE-3, A2ASE-4, and A2ASE-5.

An additional 15 soil borings were drilled to delineate LNAPL-impacted soil encountered in AOC-Area 2A Southeast. The NYSDEC has not established an RSCO for TPHC; however, a site-specific TPHC concentration of 5,000 mg/kg has been established by the NYSDEC and The Port Authority as a trigger to investigate the presence or absence of mobile LNAPL. TPHC concentrations at AOC-Area 2A Southeast ranged from 42 mg/kg in the deeper sample collected at 2ASE-7 to 38,000 mg/kg in the shallow sample collected at 2ASE-12. TPHC concentrations exceeded 5,000 mg/kg in the shallow soil samples collected at adjacent locations 2ASE-8, 2ASE-9, 2ASE-10A, 2ASE-12, and 2ASE-13A.

AOC-TE Pipeline Soil Sampling Analytical Results

The sampling program for AOC-TE Pipeline included the collection of 22 soil samples from 22 soil borings drilled along the inactive Texas Eastern pipeline and the active IMTT pipeline. The samples were analyzed for VOC+10, SVOC+20, and TPHC.

With the exception of acetone and methylene chloride, no VOCs were detected at concentrations greater than their respective RSCOs in any of the soil samples collected from AOC-TE Pipeline. Acetone was detected at a concentration of 0.31 mg/kg, slightly above its RSCO of 0.2 mg/kg, at SH-7. Methylene chloride was detected at concentrations of 0.14 and 0.12 mg/kg, slightly above its RSCO of 0.1 mg/kg at



SH-4 and SH-7, respectively. Methylene chloride was detected in the method blanks associated with the samples. Therefore, the concentration of methylene chloride in the soil samples is likely attributable to laboratory contamination. The concentrations of VOC TICs were below 1 mg/kg in all samples.

The following SVOCs were detected at concentrations that exceeded their respective RSCOs in at least one of the soil samples collected in AOC-Western Area: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, and dibenzo(a,h)anthracene. All these compounds are PAH compounds, a subset of SVOCs that have been detected at similar concentrations at other portions of the HHMT-Port Ivory Facility. The concentration of estimated SVOC TICs ranged from 36.02 at TE-7 to 279.40 mg/kg at SH-4.

The concentrations of TPHC detected at AOC-TE Pipeline ranged from non-detect at SH-3 to 1,400 mg/kg in the duplicate sample collected from SH-5. No RSCO has been established for TPHC in soil. TPHC concentrations did not exceed 5,000 mg/kg, the site-specific threshold concentration that triggers an investigation for mobile LNAPL, and the detected concentrations were similar to those detected at other portions of the HHMT-Port Ivory Facility.

Quality Assurance/Quality Control

To monitor the effectiveness of field decontamination procedures, field blanks were collected. The Port Authority prepared three field blanks for analysis of VOCs. Chloroform and methyl tertiary butyl ether (MTBE) were the only compounds detected above the laboratory's reporting limits in the field blank samples. MTBE was detected in the method blank and is considered to be a laboratory artifact. Neither chloroform nor MTBE was detected in any of the samples collected from the site. As such, the presence of chloroform and MTBE in the field blanks does not appear to have affected data usability. Duplicate samples were collected at SH-5 and TE-4. A comparison of the analytical data reported for the sample and that for the corresponding duplicate shows good agreement. These results show good data reproducibility and analytical data for field samples are usable.

5.3.2 Groundwater Sampling Results

In addition to installing monitoring wells for the specific purpose of investigating the presence or absence of mobile LNAPL in AOC-Area 2A Southeast, the three monitoring wells were sampled to determine whether the presence of LNAPL-impacted soil in AOC-Area 2A Southeast has impacted groundwater. One groundwater sample was collected from each of the three wells, identified as MW-1 2ASE, MW-2



2ASE, and MW-3 2ASE. To investigate the environmental quality of groundwater at AOC-Western Area, a groundwater sample was collected from monitoring well MW-16WA, installed at soil boring location WA-16. No groundwater sampling was warranted at AOC-TE Pipeline, nor was mobile LNAPL suspected at this AOC. Therefore, no monitoring well was installed at AOC-TE Pipeline.

All groundwater samples were analyzed for VOC+10 and SVOC+20. Groundwater sampling results are summarized in Tables 3A and 3B and on Figure 5.

For the purposes of this summary of analytical results, the results have been compared to current NYSDEC AWQSGVs for Class GA groundwater. Groundwater classified as GA is considered to be a potential drinking water source. Given the location of the site and the potential for the groundwater to be saline, the published AWQSGVs are not appropriate for use at this site. However, at this time, these represent the only guidance available for ambient groundwater. Please note, the reference of these cleanup objectives in this report does not represent any agreement or concurrence that same are appropriate for usage at this site. A discussion of the analytical results from the groundwater component of the investigation is provided below.

AOC-Western Area Analytical Results

No targeted VOCs or VOC TICs were detected in the groundwater samples collected from MW-16WA. The following PAH compounds, a subset of SVOCs, were detected at concentrations above their respective AWQSGVs at MW-16 WA: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, and indeno(1,2,3-cd)pyrene. SVOC TICs were detected at a concentration of 272.2 micrograms per liter (ug/L).

AOC-Area 2A Southeast Groundwater Analytical Results

No targeted VOCs were detected in the three groundwater samples collected from AOC-Area 2A Southeast. The total concentrations of VOC TICs detected in the groundwater samples collected at locations MW-2 2ASE and MW-3 2ASE were 3.6 and 11.9 ug/L, respectively. No VOC TICs were detected in the groundwater sample collected at location MW-1 2ASE.

The following PAH compounds, a subset of SVOCs, were detected at concentrations above their respective AWQSGV at MW-2 2ASE: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene and chrysene. No targeted SVOCs or SVOC TICs were detected above their respective AWQSGV in the

TABLE 3A SUMMARY OF GROUNDWATER ANALYTICAL RESULTS-VOCS HMMT-PORT IVORY FACILITY SITE 2

Location			1W-1 2A		N	1W-2 2A	\SE	T N	NW-3 2/	ASF	T	MW-16V	V/Λ
Sample ID	New York	PI2AMW	1-2ASE1	21907WW1	PI2AMW	/2-2ASE1:	21907WW1	PIZAMW	/3-2ASE1	21907WW1	PI-2R-M	W16W1	220021410
Lab Sample No.	AWQSGVs	A	C34902	-005	A	C34902-	-006		C34902			C34923-	
Sampling Date		1	2/19/20	007		12/19/20	07	1	12/19/20		1	12/20/20	
Matrix	1		WATE	R		WATE	R		WATE		I	WATE	
Units			ug/L			ug/L			ug/L	•	1	ug/L	`
VOLATILE ORGANIC COMPOUN	NDS (VOCs)	Conc	MDL	Qual	Conc	MDL	Qual	Conc	MDL	Qual	Conc	MDL	Qual
1,1,1-Trichloroethane	5	ND	1		ND	1		ND	1	- Quai	ND		Quai
1,1,2,2-Tetrachloroethane	5	ND	1	1	ND	1		ND	1		ND	1	
1,1,2-trichloro-1,2,2-trifluoroethan	5	ND	5		ND	5	1	ND	5	-	ND	5	-
1,1,2-Trichloroethane	1	ND	1		ND	1		ND	1				
1,1-Dichloroethane	5	ND	1		ND	1		ND	1	-	ND	1	
1,1-Dichloroethene	5	ND	1	-	ND	1	·	ND	1	-	ND	1	
1,2,3-Trichloropropane	0.04	ND	1		ND	1	1	ND	1		ND	1	
1,2,4-Trimethylbenzene	5	ND	1		ND	1		ND	1	-	ND ND	1	
1,2-Dichlorobenzene	4.7	ND	1		ND	1		ND	1	-		1	
1,2-Dichloroethane	5	ND	0.6		ND	0.6	-	ND	0.6	+	ND	1	
1,2-Dichloropropane	1	ND	1		ND	1		ND	1	-	ND	0.6	-
1,3,5-Trimethylbenzene	5	ND	1	1	ND	1	+	ND	1	-	ND	1	
1,3-Dichlorobenzene	5	ND	<u>i</u>	-	ND	1	 	ND			ND	1	
1,3-Dichloropropane	5	ND	<u></u>		ND	1	 	ND	1	-	ND	1	-
1,4-Dichlorobenzene	5	ND	1	1	ND	1	+	ND ND		-	ND	1	
1,4-Dioxane	NS	ND	200		ND	200			1	-	ND	1	
2-Butanone	50	ND	2	-	ND	200	-	ND	200	-	ND	200	
2-Chloroethylvinylether	NS	ND	2		ND	2		ND	2		ND	2	
2-Hexanone	50	ND	2		ND	2		ND	2	-	ND	2	
4-Isopropyltoluene	5	ND	1		ND	1	-	ND	2		ND	2	
4-Methyl-2-Pentanone	50	ND	1		ND			ND	1		ND	1	
Acetone	50	ND	10		ND	1		ND	1		ND	1	
Acrolein	5	ND	5			10		ND	10		ND	10	
Acrylonitrile	5	ND	2	-	ND	5		ND	5		ND	5	
Benzene	1	ND	0.5		ND ND	2		ND	2		ND	2	
Bromodichloromethane	50	ND	1			0.5		ND	0.5		ND	0.5	
Bromoform	50	ND	1		ND	1		ND	1		ND	1	
Bromomethane	5	ND	2		ND	1		ND	11		ND	1	
Carbon disulfide	50	ND	1		ND	2		ND	2		ND	2	
Carbon tetrachloride	5	ND	1		ND	1		ND	1		ND	1	
Chlorobenzene	5	ND	1		ND	1		ND	11		ND	1	
Chloroethane	50	ND	1		ND	1		ND	1		ND	1	
Chloroform	7	ND	1		ND	1		ND	1		ND	1	
Chloromethane	NS	ND	2		ND	1		ND	1		ND	1	
Cis-1,2-Dichloroethene	5	ND	1		ND	2		ND	2		ND	2	
Cis-1,3-Dichloropropene	NS	ND	1		ND ND	1		ND	1		ND	1	
Dibromochloromethane	50	ND	1		ND	1		ND	1		ND	1	
Dichlorodifluoromethane	NS	ND	2		ND	1		ND	1		ND	1	
thylbenzene	5	ND	1			2		ND	2		ND	2	
sopropylbenzene	5	ND	1		ND	1		ND	1		ND	1	
1&p-Xylenes	5	ND	1.5		ND	1		ND	1		ND	1	
Methylene chloride	5	ND	2.5		ND	1.5		ND	1.5		ND	1.5	
lethyl-t-butyl ether	NS	ND			ND	2.5		ND	2.5		ND	2.5	
-Butylbenzene	5	ND	1		ND	1		ND	1		ND	1	
-Propylbenzene	5	ND	1		ND	1		ND	1		ND	1	
-Xylene	5		1		ND	1		ND	1		ND	1	
ec-Butylbenzene	50	ND	1		ND	1		ND	1		ND	1	
		ND	1		ND	1		ND	1		ND	1	
tyrene Butyl Alcohol	NS	ND	1		ND	1		ND	1		ND	1	
	5	ND	10		ND	10		ND	10		ND	10	
Butylbenzene	NS	ND	1		ND	1		ND	1		ND	1	
etrachloroethene	5	ND	1		ND	1		ND	1		ND	1	
oluene	5	ND	1		ND	1		ND	1		ND	1	- i
rans-1,2-dichloroethene	5	ND	1		ND	1		ND	1		ND	1	
rans-1,3-dichloropropene	NS	ND	1		ND	1		ND	1		ND	1	
richloroethene	5	ND	1		ND	1		ND	1		ND	1	
richlorofluoromethane	5	ND	1		ND	1		ND	1		ND	1	
nyl chloride	2	ND	1		ND	1		ND	1		ND	1	
otal VOC TICs	NS	ND		J	11.9								

Notes and Abbreviations:
AWQSGVs= New York Ambient Water

Quality Standards and Guidance Values.

NA= Not analyzed ND= Not detected

ND= Not detected
NS= No standard or guidance value
TICs= Tenatively Identified Compounds
J= estimated value
Conc.= Concentration
MDL= Method detection limit
ug/L= micrograms per liter
FB= Field Blank
TB= Trip Blank
B= Found in laboratory blank; a
suspected laboratory artifact. suspected laboratory artifact.

TABLE 3A SUMMARY OF GROUNDWATER ANALYTICAL RESULTS-VOCS HMMT-PORT IVON FACILITY SITE 2

Location		T	FB			FB		T	FB		T	FB	
Sample ID	New York	PI-2B-	FB1-1107	07WQ01	PI-2BF	BO1-1112	07WQ02	PI-2BF	B-1-1115	07WQ01	PI-3B-	FB01-121	907WQ1
Lab Sample No.	AWQSGVs	•	C34274-		A	C34274-	012	AC	234394-	011		34902-	
Sampling Date	1		11/7/200		1	1/12/200	07	1	1/16/20	07	1	2/19/20	07
Matrix		l	WATER	₹		WATER	₹		WATER	₹		WATER	?
Units	100 0100 1		UG/L			UG/L			UG/L			UG/L	
VOLATILE ORGANIC COMPOUN		Conc	MDL	Qual	Conc	MDL	Qual	Conc	MDL	Qual	Conc	MDL	Qual
1,1,1-Trichloroethane	5	ND	NA		ND	N/A		ND	5		ND	1	
1,1,2,2-Tetrachloroethane	5	ND	5		ND	N/A		ND	5		ND	1	
1,1,2-trichloro-1,2,2-trifluoroethan		ND	5		ND	N/A		ND	5		ND	5	
1,1,2-Trichloroethane 1,1-Dichloroethane	1 5	ND	5		ND	N/A		ND	5		ND	1	
1,1-Dichloroethane	5 5	ND	5	ļ	ND	N/A		ND	5		ND	1	
1,2,3-Trichloropropane	0.04	ND ND	5		ND	N/A		ND	5		ND	1	
1,2,4-Trimethylbenzene	5	ND	5	-	ND	N/A		ND	5		ND	1	
1,2-Dichlorobenzene	4.7	ND	1		ND	N/A		ND	1	-	ND	1	
1,2-Dichloroethane	5	ND	5		ND ND	N/A N/A		ND	5		ND	11	
1,2-Dichloropropane	1	ND	5		ND	N/A		ND	5		ND	0.6	
1,3,5-Trimethylbenzene	5	ND	5		ND	N/A		ND	5	-	ND	1	
1,3-Dichlorobenzene	5	ND	1		ND	N/A	-	ND ND	5		ND	1	
1,3-Dichloropropane	5	ND	5		ND	N/A		ND	5		ND	1	
1,4-Dichlorobenzene	5	ND	5		ND	N/A		ND	5	-	ND ND	1	
1,4-Dioxane	NS	ND	5		ND	N/A		ND	250		ND	200	
2-Butanone	50	ND	250		ND	N/A		ND	5		ND	200	
2-Chloroethylvinylether	NS	ND	5		ND	N/A		ND	5		ND	2	
2-Hexanone	50	ND	5		ND	N/A		ND	5		ND	2	
4-Isopropyltoluene	5	ND	5		ND	N/A		ND	1		ND	1	
4-Methyl-2-Pentanone	50	ND	1		ND	N/A		ND	5		ND	1	
Acetone	50	ND	5		ND	N/A		ND	25		ND	10	***************************************
Acrolein	5	ND	25		ND	N/A		ND	25		ND	5	
Acrylonitrile	5	ND	25		ND	N/A		ND	5		ND	2	
Benzene Bromodichloromethane	1 50	ND	5		ND	N/A		ND	1		ND	0.5	
Bromoform	50 50	ND	1		ND	N/A		ND	5		ND	1	
Bromomethane	5	ND ND	5		ND	N/A		ND	5		ND	1	
Carbon disulfide	50	ND	5		ND	N/A		ND	5		ND	2	
Carbon tetrachloride	5	ND	5		ND ND	N/A N/A		ND	5		ND	1	
Chlorobenzene	5	ND	5		ND	N/A		ND ND	5 5		ND	1	
Chloroethane	50	ND	5		ND	N/A		ND	5		ND ND	1	
Chloroform	7	ND	5		6.7	N/A		3.8		J	ND	1	
Chloromethane	NS	ND	5		ND	N/A		ND	5	-	ND	2	
Cis-1,2-Dichloroethene	5	ND	5		ND	N/A		ND	5		ND	1	
Cis-1,3-Dichloropropene	NS	ND	5		ND	N/A		ND	5		ND	1	
Dibromochloromethane	50	ND	5		ND	N/A		ND	5		ND	1	
Dichlorodifluoromethane	NS	ND	5		ND	N/A		ND	5		ND	2	
Ethylbenzene	5	ND	5		ND	N/A		ND	1		ND	1	
sopropylbenzene	5	ND	1		ND	N/A		ND	1		ND	1	
M&p-Xylenes Methylene chloride	5	ND	1		ND	N/A		ND	2		ND	1.5	
Methyl-t-butyl ether	5 NS	ND	2		ND	N/A		ND	5		ND	2.5	
n-Butylbenzene	5	2.1 ND	5	JB	ND	N/A		ND	1		ND	1	
i-Propylbenzene	5	ND	1		ND	N/A		ND	1		ND	1	
D-Xylene	5	ND	1		ND ND	N/A N/A		ND	1		ND	1	
ec-Butylbenzene	50	ND	1		ND	N/A		ND	1		ND	1	
Styrene	NS	ND	1		ND	N/A		ND	1		ND	1	
Butyl Alcohol	5	ND	5		ND	N/A		ND ND	5		ND	1	
Butylbenzene	NS	ND	25		ND	N/A		ND	25		ND	10	
etrachloroethene	5	ND	1		ND	N/A		ND	5		ND ND	1	
oluene	5	ND	5		ND	N/A		ND	1		ND	1	
rans-1,2-dichloroethene	5	ND	1		ND	N/A		ND	5		ND	1	
rans-1,3-dichloropropene	NS	ND	5		ND	N/A		ND	5		ND	1	
richloroethene	5	ND	5		ND	N/A		ND	5		ND	1	
richlorofluoromethane	5	ND	5		ND	N/A		ND	5		ND	1	
		110	- 1		140	14//1		IND I	- O				
indiorondoromethane indiorondoromethane otal voc Tics	2 NS	ND ND	5		ND	N/A		ND	5		ND	1 +	

Notes and Abbreviations:

AWQSGVs= New York Ambient Water

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J= estimated value

Conc.= Concentration

MDL= Method detection limit

ug/L= micrograms per liter FB= Field Blank

TB= Trip Blank
B= Found in laboratory blank; a suspected laboratory artifact.

TABLE 3A SUMMARY OF GROUNDWATER ANALYTICAL RESULTS-VOCS HMMT-PORT IVORY FACILITY SITE 2

Location		T	ТВ		l .	FB		T	ТВ	***************************************
Sample ID	New York	PI-3B-	TB01-1219	907WQ1	PI-3A-	FB01-1220	007W01	PI-3A	TB01-1220	007\A/O4
Lab Sample No.	AWQSGVs		34902-0			C34923-		1	C34923-	
Sampling Date		1	2/19/200	07	1	2/20/20		ł	2/20/20	
Matrix		ĺ	WATER	2		WATER	}		WATER	
Units		l	UG/L			UG/L			UG/L	•
VOLATILE ORGANIC COMPOUN	IDS (VOCs)	Conc	MDL	Qual	Conc	MDL	Qual	Conc	MDL	Qual
1,1,1-Trichloroethane	5	ND	1		ND	1		ND	1	Guai
1,1,2,2-Tetrachloroethane	5	ND	1		ND	1		ND	1	1
1,1,2-trichloro-1,2,2-trifluoroethane	5	ND	5		ND	5		ND	5	
1,1,2-Trichloroethane	1	ND	1		ND	1		ND	1	
1,1-Dichloroethane	5	ND	1		ND	1		ND	1	
1,1-Dichloroethene	5	ND	1		ND	1		ND	1	
1,2,3-Trichloropropane	0.04	ND	1		ND	1		ND	1	
1,2,4-Trimethylbenzene	5	ND	1		ND	1		ND	1	
1,2-Dichlorobenzene	4.7	ND	1		ND	1		ND	1	
1,2-Dichloroethane	5	ND	0.6		ND	0.6		ND	0.6	
1,2-Dichloropropane	1	ND	1		ND	1		ND	1	
1,3,5-Trimethylbenzene	5	ND	1		ND	1		ND	1	
1,3-Dichlorobenzene	5	ND	1		ND	1		ND	1	
1,3-Dichloropropane	5	ND	1		ND	1		ND	1	
1,4-Dichlorobenzene	5	ND	1		ND	1		ND	1	
1,4-Dioxane	NS	ND	200		ND	200		ND	200	
2-Butanone	50	ND	2		ND	2		ND	200	
2-Chloroethylvinylether	NS	ND	2		ND	2		ND	2	
2-Hexanone	50	ND	2		ND	2		ND	2	
4-Isopropyltoluene	5	ND	1		ND	1		ND	1	
4-Methyl-2-Pentanone	50	ND	1		ND	i		ND	1	
Acetone	50	ND	10		ND	10		ND	10	
Acrolein	5	ND	5		ND	5		ND	5	
Acrylonitrile	5	ND	2		ND	2		ND	2	
Benzene	1	ND	0.5		ND	0.5		ND	0.5	
Bromodichloromethane	50	ND	1		ND	1		ND	1	
Bromoform	50	ND	1		ND	1		ND	1	
Bromomethane	5	ND	2		ND	2		ND	2	
Carbon disulfide	50	ND	1		ND	1		ND	1	
Carbon tetrachloride	5	ND	1		ND	1		ND	1	
Chlorobenzene	5	ND	1		ND	1		ND	1	
Chloroethane	50	ND	1		ND	1		ND	1	
Chloroform	7	ND	1		4.3	1		ND	1	
Chloromethane	NS	ND	2		ND ND	2		ND	2	
Cis-1,2-Dichloroethene	5	ND	1		ND	1		ND	1	
Cis-1,3-Dichloropropene	NS	ND	1		ND	1				
Dibromochloromethane	50	ND	1		ND	1		ND ND	1	
Dichlorodifluoromethane	NS	ND	2		ND	2		ND	1	
thylbenzene	5	ND	1		ND	1			2	
sopropylbenzene	5	ND	1		ND	1		ND	1	
1&p-Xylenes	5	ND	1.5		ND	1.5		ND	1 1	
Methylene chloride	5	ND	2.5		ND	2.5		ND	1.5	
Methyl-t-butyl ether	NS	ND	1		ND			ND	2.5	
-Butylbenzene	5	ND	1			1		ND	1	
-Propylbenzene	5	ND	1		ND	1		ND	1	
0-Xylene	5	ND	1		ND	1		ND	1	
ec-Butylbenzene	50	ND	1		ND	1		ND	1	
tyrene					ND	1		ND	1	
Butyl Alcohol	NS 5	ND	1		ND	1		ND	1	
Butylbenzene	NS NS	ND	10		ND	10		ND	10	
etrachloroethene		ND	1		ND	1		ND	1	
oluene	5	ND	1		ND	1		ND	1	
	5	ND	1		ND	1		2.5	1	
rans-1,2-dichloroethene	5	ND	1		ND	1		ND	1	
rans-1,3-dichloropropene richloroethene	NS	ND	1		ND	1		ND	1	
	5	ND	1		ND	1		ND	1	
richlorofluoromethane	5	ND	1		ND	1		ND	1	
inyl chloride	2	ND	1		ND	1		ND	1	
otal VOC TICs	NS	ND			ND		Γ	ND		

Notes and Abbreviations:
AWQSGVs= New York Ambient Water

Quality Standards and Guidance Values.

NA= Not analyzed

ND= Not detected

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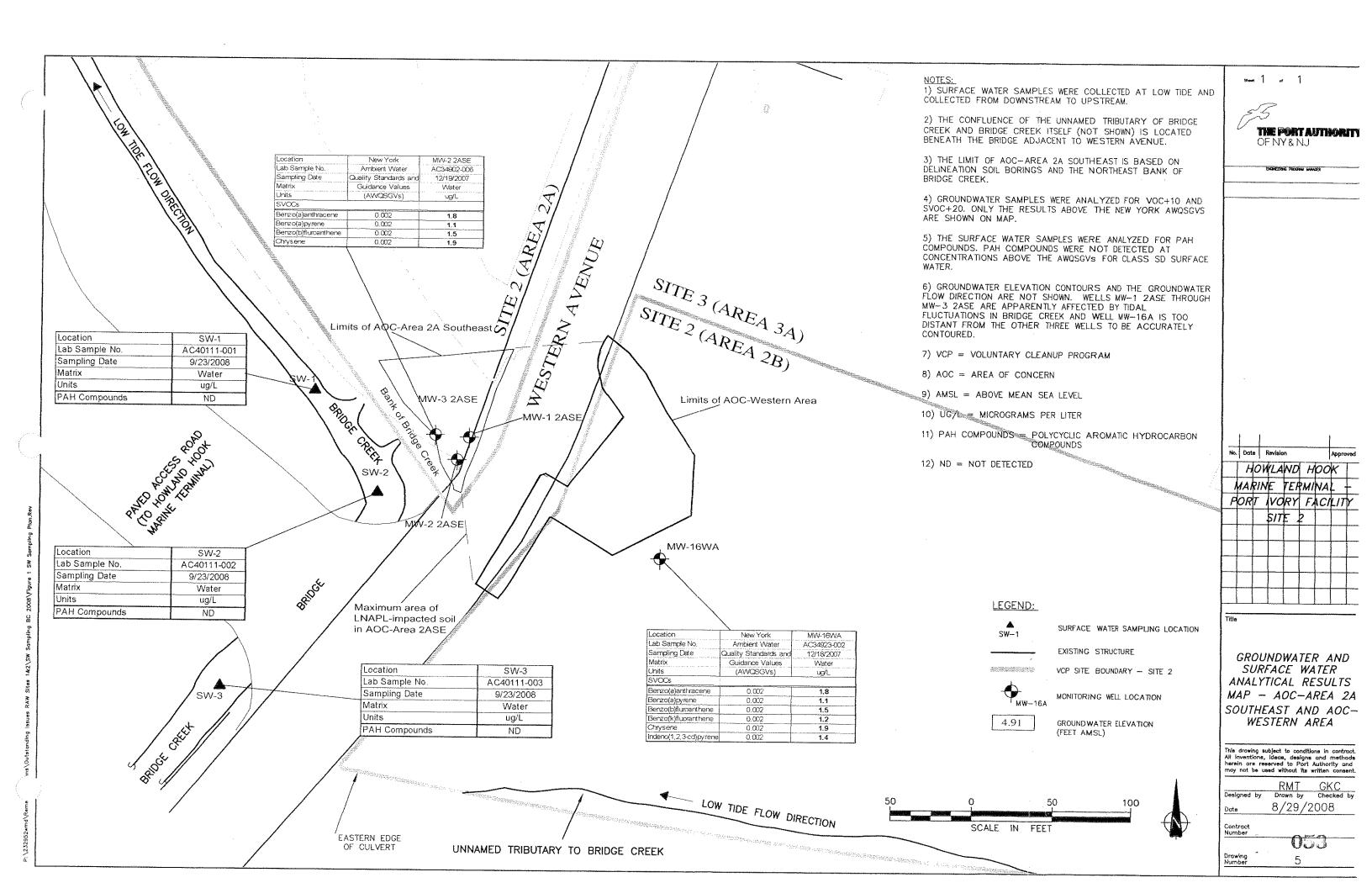
Conc.= Concentration

Conc.= Concentration
MDL= Method detection limit
ug/L= micrograms per liter
FB= Field Blank
TB= Trip Blank
B= Found in laboratory blank; a
suspected laboratory artifact.

Location Sample ID	New York	DIZA	/W-1 2	ASE	, lan	/W-2 2A	SE	N	/W-3 2A	SE		MW-16V	VA		FB	-	T	FB	
Lab Sample No.	AWQSGVs	PIZAMW	1-2ASE1	21907WW	1 PIZAMW	2-2ASE12	21907WW1	PI2AMW	3-2ASE12	1907WW				1 P⊩3E	3-FB01-1219	07WQ1	PI-3A	-FB01-1220	:007WC
Sampling Date	AWGSGVS		C34902			C34902			C34902-			C34923-			AC34902-0			C34923-	
Matrix	ŀ	1	12/19/20		1	12/19/20		1	12/19/20			12/18/20		1	12/19/200)7	1	12/20/20	07
Units		l	WATE	.r.	1	WATE	к		WATER	₹	1	WATER	₹ .	1	WATER		1	WATER	
Semivolatile Organic Compounds	(SVOCs)	Conc	ug/L MDL	Qual	Conc	ug/L	T C	 	ug/L	T 6	<u> </u>	ug/L	_		ug/L			ug/L	
1.2.4-Trichlorobenzene	5	ND	2 MDL	Qual	ND	MDL	Qual	Conc	MDL	Qual	Conc	MDL	Qual	Conc	MDL	Qual	Conc	MDL	Q
1,2-Diphenylhydrazine	NA NA	ND	0.5		ND	2		ND	2		ND	2		ND	2		ND	2	T
2,4,5-Trichlorophenol	1	ND	5	-	ND	0.51 5.1		ND	0.5		ND	0.51		ND	0.51		ND	0.5	
2,4,6-Trichlorophenol	NA NA	ND	5	+	ND	5.1	 	ND	5		ND	5.1		ND	5.1		ND	5	
2,4-Dichlorophenol	1	ND	5	+	ND	5.1	 	ND ND	5		ND	5.1		ND	5.1		ND	5	
2,4-Dimethylphenol	1	ND	5	+	ND	5.1	+	ND	5		ND	5.1		ND	5.1		ND	5	
2,4-Dinitrophenol	5	ND	10	1	ND	10	+	ND	10	 	ND	5.1		ND	5.1		ND	5	
2,4-Dinitrotoluene	5	ND	1	1	ND	1	1	ND	1		ND ND	10		ND	10		ND	10	
2,6-Dinitrotoluene	5	ND	1	1	ND	1	1	ND	1		ND	1		ND	1		ND	11	
2-Chloronaphthalene	10	ND	1	1	ND	1		ND	1		ND	1	-	ND	1		ND	1	
2-Chlorophenol	50	ND	5	1	ND	5.1		ND	5	-	ND	5.1	-	ND ND	1 54		ND	1	
2-Methylnaphthalene	50	ND	10		ND	10		ND	10		ND	10		ND	5.1		ND	5	-
?-Methylphenol	5	ND	10		ND	10		ND	10		ND	10		ND	10		ND	10	+-
?-Nitroaniline	5	ND	5		ND	5.1		ND	5		ND	5.1		ND	5.1		ND	10	+-
-Nitrophenol	5	ND	5		ND	5.1		ND	5		ND	5.1		ND	5.1		ND	5	-
&4-Methylphenol	50	ND	10		ND	10		ND	10		ND	10		ND	10		ND ND	5	+
,3'-Dichlorobenzidine	NA	ND	5		ND	5.1		ND	5		ND	5.1		ND	5.1		ND	10 5	+-
-Nitroaniline	5	ND	5		ND	5.1		ND	5		ND	5.1		ND	5.1		ND	5	+
,6-Dinitro-2-methylphenol	NA NA	ND	5		ND	5.1		ND	5		ND	5.1		ND	5.1		ND ND	5	+-
-Bromophenyl-phenylether	NA	ND	1	-	ND	1		ND	1		ND	1		ND	1		ND	1	+
-Chloro-3-methylphenol	5	ND	5	-	ND	5.1		ND	5		ND	5.1		ND	5.1		ND	5	+-
-Chlorophopul phopulather	5	ND	5	-	ND	5.1		ND	5		ND	5.1		ND	5.1		ND	5	+-
-Chlorophenyl-phenylether -Nitroaniline	NA E	ND	1	-	ND	1		ND	. 1		ND	1		ND	1		ND	1	+-
-Nitroaniline -Nitrophenol	5	ND	5		ND	5.1		ND	5		ND	5.1		ND	5.1		ND	5	T
-Nitrophenoi cenaphthene	5	ND 1.0	5		ND	5.1		ND	5		ND	5.1		ND	5.1		ND	5	1
cenaphthylene	20 20	1.8 ND		-	1.3	11		1.1	1		1.7	1		ND	1		ND	1	
niline	5	ND	1	-	ND	1		ND	1		ND	1		ND	1		ND	1	1
nthracene	50	ND	5		ND	5.1		ND	5		ND	5.1		ND	5.1		ND	5	T
enzidine	5	ND	20		ND	1		ND	1		1.6	1		ND	1		ND	1	
enzo[a]Anthracene	0.002			-	ND	20		ND	20		ND	20		ND	20		ND	20	1
enzo[a]Pyrene	0.002	ND ND	1		1.8	1		ND	1		2.3	1		ND	1		ND	1	T
enzo[b]Fluoranthene	0.002	ND	1	-	6.1.1.	1		ND	1		2.1	1		ND	1		ND	1	
enzo[g,h,i]Perylene	5	ND	1		1.5 ND	1		ND	1		. 3	1		ND	1		ND	1	
enzo[k]Fluoranthene	0.002	ND	1		ND	1		ND	1		1.5	1		ND	1		ND	1	
enzoic acid	50	ND	20		ND	20		ND	1		1.2	1		ND	1		ND	1	
s(2-Chloroethoxy)methane	5	ND	1		ND	1		ND ND	20		ND	20		ND	20		ND	20	
s(2-Chloroethyl)ether	1	ND	5		ND	5.1		ND	5		ND ND	5.1		ND	1		ND	1	
s(2-Chloroisopropyl)ether	NA	ND	1		ND	1		ND	1		ND	1		ND	5.1		ND	5	
s(2-Ethylhexyl)phthalate	50	ND	1		4.1	1		ND	1		25	1		ND ND	1		ND	1	
utylbenzylphthalate	50	ND	1		ND	1		ND	1		ND	1	+	ND	1 1		ND	1	
arbazole	NA	ND	1		ND	1		ND	1		ND	1		ND	1		ND ND	1	
nrysene	0.002	ND	1		. 1.9	1		ND	1	š	3/1/2	1		ND	1		ND	1	
benzo[a,h]Anthracene	50	ND	1		ND	1		ND	1		ND	1		ND	1		ND	1	
benzofuran	5	ND	5		ND	5.1		ND	5		ND	5.1		ND	5.1		ND	5	
ethylphthalate	50	ND	1		ND	1		ND	1		ND	1		ND	1		ND	1	
methylphthalate	50	ND	11		ND	1		ND	1		ND	1		ND	1		ND	1	
-n-Butylphthalate	50	ND	1		ND	1		ND	1		ND	1		ND	1		ND	1	
-n-octylphthalate uoranthene	50	ND	1		ND	1		ND	1		ND	1		ND	1		ND	1	
Joranthene	50	ND	1		1.6	1		ND	1		4.9	1		ND	1		ND	1	
exachlorobenzene	50 0.35	ND	1		2.9	1		ND	1		1.1	1		ND	1		ND	1	
exachlorobutadiene	0.35	ND ND	1 0.5		ND	1 0.54		ND	1		ND	1		ND	1		ND	1	
exachlorocyclopentadiene	5	ND	15		ND	0.51		ND	0.5		ND	0.51		ND	0.51		ND	0.5	
exachloroethane	5	ND	2		ND ND	15 2		ND	15		ND	15		ND	15		ND	15	
deno[1,2,3-cd]Pyrene	0.002	ND	1	+	ND ND	1	-+	ND	2		ND	2		ND	2		ND	2	
phorone	50	ND			ND	1		ND ND	1		1:4	1		ND	1		ND	1	
phthalene	10	ND	1		ND	1		ND	1		ND	1		ND	1		ND	1	
robenzene	NA NA	ND	20	-+	ND	20		ND	20		ND	20		ND	1		ND	1	
Nitroso-Di-n-propylamine	NA	ND	1		ND	1		ND	1	-+	ND ND	1		ND	20		ND	20	
Nitrosodiphenylamine	50	ND	1		ND	1		ND	1		ND	1		ND ND	1		ND	1	
ntachlorophenol	1	ND	5		ND	5.1		ND	5		ND	5.1		ND	5.1		ND	1	
enanthrene	50	ND	1		2.5	1		ND	1	-	3.8	1		ND	1		ND ND	5	
enol	1	ND	5		ND	5.1		ND	5		ND	5.1		ND	5.1		ND	5	
rene		ND	1		1.9	1		ND	1		5.2	1		ND	1		ND	1	
al SVOC TICs	NS	4.4		J	323.5		J	ND			272.2	-+	J	ND			ND	+	
tes & Abbreviations:																			
VQSGVs= New York Ambient Wa																			
Quality Standards and Guidance	values.																		
= Not analyzed																			
= Not detected																			
)																		
= No standard or guidance value s= Tenatively Identified Compou																			
s= Tenatively Identified Compou estimated value																			
s= Tenatively Identified Compou																			

ug/L= micrograms per liter FB= Field Blank TB= Trip Blank

Note 1) Concentrations in bold and shaded cells exceed the AWQSGVs.





groundwater samples collected at locations MW-1 2ASE and MW-3 2ASE. SVOC TICs were detected at a concentration of 323.5 ug/L at MW-2-2ASE.

Quality Assurance/Quality Control - Groundwater Samples

To monitor the effectiveness of the field decontamination procedures and the degree to which the laboratory may have contaminated the groundwater samples, QA/QC samples were collected. The Port Authority collected two field blanks and two trip blanks. The field blank was prepared by running laboratory-grade DI water over the sampling equipment. The trip blank was prepared by the analytical laboratory and was shipped with the groundwater sampling jars from the laboratory and transported to the laboratory with the groundwater samples. The field blanks were analyzed for TCL VOC+10 and TCL SVOC+20, while the trip blanks were analyzed for only VOC+10. Please note, the purpose of collecting a field blank on December 19, 2007 was to document the effectiveness of field decontamination procedures at Site 2 and other sample fractions associated with samples collected at Site 3. The samples collected at Site 3 were analyzed for Priority Pollutants with a 40-compound library search (PP+40). The field blanks were analyzed for the same parameters. However, since the sampling program at Site 2 included only the VOC and SVOC fractions analyzed, the field blank data reported herein include only VOCs and SVOCs. No targeted VOCs or SVOCs were detected in the field blanks prepared on December 19, 2007.

Chloroform was the only targeted VOC or SVOC detected in the field blank sample collected on December 20, 2007. However, chloroform was not detected in any of the water samples collected from the site. Therefore, the presence of chloroform in the field blank does not appear to have affected data usability. Neither VOC TICs, nor SVOC TICs were detected in the field blank samples (see Tables 3A and 3B for a summary of the QA/QC results).

Except for toluene, no targeted VOCs or VOC TICs were detected in either trip blank. Toluene was detected above the laboratory's reporting limits, but below its AWQSGV in one of the trip blank samples. Toluene was not detected in any of the groundwater samples. Therefore, the presence of toluene in one of the trip blanks does not appear to affect data usability.

5.3.3 Surface Water Sampling Results

The surface water sampling component of the FSRI included collecting surface water samples from three locations in Bridge Creek adjacent to AOC-Area 2A Southeast. The surface water samples were analyzed for PAH compounds because PAH compounds were the only contaminant of concern detected in



groundwater adjacent to Bridge Creek. PAH compounds were not detected in the surface water samples, indicating that groundwater has not impacted surface water. The surface water sampling locations are shown on Figure 5. Surface water sampling results are summarized in Table 4.

6.0 DISCUSSION OF FSRI RESULTS

The overall goal of the FSRI was to determine whether further investigative and/or remedial efforts are warranted at the three open AOCs (AOC-Area 2A Southeast, AOC-Western Area, and AOC-TE Pipeline). To meet the previously stated objectives, the FSRI included the collection of soil, groundwater and surface water samples at AOC-Area 2A Southeast, the collection of soil and groundwater samples at AOC-Western Area and the collection of soil samples at AOC-TE Pipeline. The presence or absence of mobile LNAPL was also investigated at three monitoring wells at AOC-Area 2A Southeast.

In general, the concentrations of PAH compounds detected in soil at Site 2 were similar to those detected throughout the HHMT-Port Ivory Facility and are attributable to the former placement of fill by P&G.

LNAPL-impacted soil was only encountered at one AOC (AOC-Area 2A Southeast) and was subsequently delineated during the FSRI (See Figure 3). Mobile LNAPL was not encountered at any location in AOC-Area 2A Southeast. Groundwater is impacted by PAH compounds. However, these groundwater impacts have not impacted surface water in Bridge Creek or the tributary to Bridge Creek.

Soil sampling analytical results and field observations confirmed the success of the soil removal effort at AOC-Western Area. Soil and groundwater analytical results and field observations confirm the absence of any significant environmental impacts at AOC-TE Pipeline.

The FSRI results at AOC-Western Area, AOC-Area 2A Southeast, and AOC-TE Pipeline are discussed in Sections 6.1, 6.2, and 6.3, respectively.

6.1 FSRI Results AOC-Western Area

The overall goal of the FSRI at AOC-Western Area was to confirm the success of soil removal activities previously completed by The Port Authority (Objective 1) and to confirm that no additional investigation or remedial action is warranted in this AOC.

TABLE 4
SUMMARY OF SURFACE WATER ANALYTICAL RESULTS- PAHS
HHMT-PORT IVORY FACILITY
SITE 2

Location		3000	SW-1			C-M/S			STAL 3				
Sample ID	New York	PI-BC-S	-BC-SW-1-092308SW	D8SW1	PI-BC-S	PI-BC-SW-2-092308SW1	38SW1	PI-BC-S	91-8C-SW-3-092308SW1	ORSW1	ם כ	FB PLRC.CIVER.002308CIVI	70000
Lab ID	State	Ā	AC40111-001	-	AC	AC40111-002	- 2	Ϋ́	AC40111-003	2000) } }	ACA0111-005	- ^ ^
Date Collected	AWQSGV		9/23/2008		. Co	3/23/2008		-	9/23/2008	?	ζ	9/23/2008	
Material	(Surface Water*)		Water			Water			Water			Mater	
Units	ug/L		ug/L			ng/L			ug/L			ia)/n	
Polycyclic Aromatic Hydrocarbons (PAHs)	irbons (PAHs)	Conc	Qual	MDL	Conc	Qual	MDL	Conc	Qual	IGM	Conc	Je Je	
Acenaphthene	09	QN		2.1	S		2.1	S S		2	CN		,
Acenaphthylene	20	2		2.1	QN		2.1	2		0	S S		1 0
Anthracene	50	2		2.1	Q		2.1	2		۱ ۸	S CN		1 (
Benzo[a]anthracene	0.002	2		2.1	Q		2.1	Q			2 5		, (
Benzo[a]pyrene	Detection Limit	2		2.1	2		2.1	2		0	CN.		,
Benzo[b]fluoranthene	0.002	QN		2.1	2		2.1	2		2	2 2		4 6
Benzo[g,h,i]perylene	S	Q		2.1	Q		2.1	S		2	Q Q		1 0
Benzo[k]fluoranthene	0.002	2		2.1	2		2.1	S		2	CN		1 0
Chrysene	SN	2		2.1	8		2.1	QN		2	S		1 0
Dibenzo[a,h]Anthracene	SN	ON.		2.1	QN		2.1	2		2	, E		1 0
Fluoranthene	SN	ON		2.1	S		2.1	S		2	S		2 2
Fluorene	23	S		2.1	ON.		2.1	S		2	CN		2
Indeno[1,2,3-cd]pyrene	SN	9		2.1	9		2.1	2		2	Z Z		1 0
Naphthalene	140	9		2.1	2		2.1	2		2	S		1
Phenanthrene	14	S		2.1	2		2.1	2		2	CZ		
Pyrene	NS	9		2.1	S		2.1	2		2	Q		1 ~
Notes and Abbreviations:													

AWQSGV = Ambient Water Quality Standards and Guidance Values as published in the Division of Water Technical and Operational Guidance Series (1.1.1), dated June 1998.
* Using SD water classification with protection for human consumption of fish (saline water).

UG/L = Micrograms per Liter ND = Not Detected NS=No Standard

Qual = Laboratory Qualifier Conc = Concentration MDL = Method Detection Limit FB = Field Blank



Soil samples were collected from 18 locations along the perimeter of the excavation of AOC-Western Area. As a portion of the excavation had been backfilled, soil samples collected from 8 locations were sampled below the backfill material by drilling soil borings. Field observations indicated the absence LNAPL and LNAPL-impacted soil along the excavation perimeter at all soil boring locations. Elevated concentrations of volatile organic vapors were not detected using a PID, except for WA-5, which was deemed unrelated to LNAPL impacts..

The soil analytical results indicate minor impacts to soil. These impacts consisted primarily of PAH compounds detected at similar concentrations to those in soil at other portions of the HHMT-Port Ivory Facility. These minor soil impacts are attributable to fill materials placed at the site by P&G.

TPHC concentrations were below 5,000 mg/kg, the site-specific threshold for investigating for the presence of mobile LNAPL in all except one sample. The concentration detected at WA-16 was 18,000 mg/kg. Even though LNAPL-impacted soil was not encountered at WA-16, to be consistent with the investigation of soil at other areas of the HMM Facility where TPHC concentrations in soil exceeded 5,000 mg/kg, The Port Authority installed a monitoring well (MW-16WA) to confirm the presence or absence of mobile LNAPL at location WA-16. LNAPL was not encountered in the well during gauging and prior to sampling. Therefore, mobile LNAPL is not present at this location. The analytical results of a groundwater sample collected from well MW-16WA indicated only minor impacts of PAH compounds.

The anticipated direction of groundwater flow is to the south toward the unnamed tributary of Bridge Creek. Surface water sampling of the unnamed tributary of Bridge Creek completed in 2007 did not detect VOCs or SVOCs at concentrations above the AWQSGVs for Class SD surface water.

Based on the results of the FSRI, mobile LNAPL is not present in AOC-Western Area. Minor impacts to soil and groundwater are present, which are believed to be related to fill material used to raise the site grade by P&G. However, these impacts have not affected surface water quality in the unnamed tributary of Bridge Creek, which is located to the south of Area 2B. The soil removal effort at this AOC was successful. Based on the results of the FSRI, no further investigation is warranted at AOC-Western Area.

6.2 FSRI Results AOC-Area 2A Southeast

This section summarizes the results of the FSRI at AOC-Area 2A Southeast. The FSRI at AOC-Area 2A Southeast included the drilling of 19 soil borings, the installation of three monitoring wells, the collection



of 28 soil samples, the collection of three groundwater samples, and the collection of three surface water samples. The objectives of the FSRI at AOC-Area 2A Southeast were to confirm the presence or absence of elevated concentrations of PAH compounds and total SVOCs at location 2ASE2 (WAW-2S) Objective 2, to complete the delineation of LNAPL-impacted soil (Objective 3) to confirm the presence or absence of mobile LNAPL (Objective 4), and to evaluate whether the presence of LNAPL-impacted soil has impacted groundwater or surface water (Objective 5). Since PAH compounds were detected in groundwater, surface water sampling was performed to confirm whether or not surface water in Bridge Creek has been affected by the groundwater impacts. The objectives of AOC-Area 2A Southeast have been met as discussed below.

Prior to the FSRI, elevated concentrations of PAH compounds and total SVOCs were detected in a soil sample previously detected at WAW-2S at a depth of 3.5-4 feet bgs. This impact was potentially attributable to cinders/slag included in the sample. Confirmatory sampling conducted at this location during the FSRI indicated concentrations of PAH compounds in soil similar to those throughout the HHMT-Port Ivory Facility. Therefore no further investigative or remedial efforts are warranted for soil at AOC-Area 2A Southeast.

Prior to the FSRI, LNAPL-impacted soil was encountered in an excavation for modification to the facility storm water infrastructure in AOC-Area 2A Southeast. The inactive Tidewater pipelines extend through the excavation, and these pipelines are considered to be the potential source area for the LNAPL-impacted soil. During the FSRI, LNAPL-impacted soil was encountered at 2ASE-1, 2ASE-5, 2ASE-7 through 2ASE 14, and 2ASE-17. LNAPL impacts were determined based on field observations and analytical results of TPHC. The LNAPL-impacted soil was vertically delineated to a depth of 6 feet bgs. The thickness of LNAPL-impacted soil ranged from 1 to 4 feet bgs with an average thickness of approximately 2 feet. During the FSRI, LNAPL-impacted soil was horizontally delineated to the north at soil boring locations 2ASE-15, 2ASE-18, and 2ASE-19 and to the south at locations 2ASE-2 and 2ASE-3. Horizontal delineation could not be completed to the east due to the proximity of Western Avenue. Although soil borings could not be drilled in Western Avenue to complete the eastern delineation of AOC-Area 2A Southeast, delineation was completed at the eastern side of Western Avenue by the western limit of AOC-Western Area. Therefore, LNAPL-impacted soil present in AOC-Area 2A Southeast does not extend beyond Western Avenue. No further delineation to the east is necessary.



Further delineation along the western edge of and to the west of AOC-Area 2A Southeast is also unnecessary. Soil borings drilled at the western edge of AOC-Area 2A Southeast were located on or near the bank of Bridge Creek. Soil borings could not be drilled further to the west due to the steep slope along Bridge Creek. However, LNAPL-impacted soil does not appear to extend into Bridge Creek, as indications of LNAPL impacts (sheen, stained soil, LNAPL, etc.) were not present on soils on the surface of the bank of Bridge Creek. Further, LNAPL was not encountered in a well (MW-3 2ASE) installed near the bank of Bridge Creek, nor were any VOCs or SVOCS detected at concentrations above their respective AWQSGVs in a groundwater sample collected from this well. LNAPL has not been encountered in Bridge Creek itself and PAH compounds were not detected in surface water samples collected from Bridge Creek during the RI. Relatively low concentrations of TPHC were detected in sediment samples collected from Bridge Creek. Therefore, horizontal delineation of LNAPL-impacted soil has been completed to the extent possible to the west of AOC-Area 2A Southeast.

Based on the results of the FSRI, LNAPL-impacted soil is known to be present in AOC-Area 2A Southeast within a minimum area that of 4,000 square feet. Approximately 300 cubic yards of LNAPL-impacted soil is believed to be present at AOC-Area 2A Southeast.

To evaluate whether LNAPL-impacted soil has impacted groundwater, The Port Authority initiated a groundwater investigation at AOC-Area 2A Southeast. Groundwater sampling at AOC-Area 2A Southeast (from wells MW-1-2ASE, MW-2 2ASE, and MW-3 2ASE) revealed that groundwater is impacted with benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene and chrysene. These PAH compounds were not detected in surface water. Therefore, the presence of LNAPL has resulted in minor impacts to groundwater, but has not impacted surface water.

To evaluate whether mobile LNAPL is present in AOC-Area 2A Southeast, The Port Authority used field observations and the concentrations of TPHC in soil to determine where mobile LNAPL would most likely be present. The NYSDEC and The Port Authority have established a site-specific threshold of 5,000 mg/kg for investigating the presence of mobile LNAPL. TPHC concentrations in soil were above 5,000 mg/kg at 5 locations in AOC-Area 2A Southeast. Location 2ASE-8 (25,000 mg/kg), 2ASE-10A (38,000 mg/kg) and 2ASE-12 (16,000 mg/kg) had the highest concentrations of TPHC in soil. Field screening results and field observations indicated these locations had the greatest LNAPL impacts. Monitoring wells were installed at these locations. LNAPL was not present in any of the wells, even seven days after the wells were installed. Therefore, mobile LNAPL is not present in the vicinity of these



wells. As these locations exhibit the greatest LNAPL impacts at AOC-Area 2A Southeast, mobile LNAPL is not present at this AOC.

6.3 FSRI Results AOC-TE Pipeline

The FSRI at AOC-TE Pipeline included a geophysical survey to locate the active IMTT and inactive Texas Eastern pipelines, the drilling of 22 soil borings, and the collection of 21 soil samples for analysis. The soil borings were drilled at a rate of one per 50 linear feet of pipeline, a rate that is consistent with investigations at other areas of the HHMT-Port Ivory Facility. The overall goal of the FSRI at AOC-TE Pipeline was to determine whether LNAPL was present along these pipelines.

The geophysical surveys were successful in locating 480 feet of the active IMTT pipeline and 475 feet of the inactive Texas Eastern pipeline. Therefore Objective 6, to determine the locations of the IMTT and Texas Eastern pipelines has been met. Based on field observations, LNAPL-impacted soil was not encountered at any of the soil borings drilled along either pipeline. Therefore, Objective 7, to confirm the presence or absence of LNAPL-impacted soil along these pipelines, has been met. Analytical results reveal that soil is impacted by PAH compounds, a subset of SVOCs. As the total concentrations of PAH compounds detected in AOC-TE Pipeline are similar to those in soil samples collected from historic fill materials at locations throughout the facility, The Port Authority believes these impacts to be attributable to fill materials placed by P&G to raise the site grade.

During the SI, soil impacted by benzene was detected at well MW-10D, located north of AOC-TE Pipeline at Area 2B. A soil sample collected from the 8-10 foot bgs depth interval at MW-10D prior to the FSRI contained benzene at a concentration of 0.32 milligrams per kilogram (mg/kg), slightly above its RSCO, but almost two orders of magnitude below its direct contact health-based criterion (24 mg/kg). The benzene impact was successfully delineated in all directions, except to the south, during the RI.

Delineation to the south of MW-10D was completed during the FSRI while investigating AOC-TE Pipeline. Soil boring SH-3 was drilled approximately 26 feet to the south of MW-10D and the IMTT pipeline. Benzene was not detected in the soil sample collected from the groundwater interface at a depth interval of 5.5 to 6 feet at SH-3. As indicated in the Site 2 CRIR, benzene in soil in the vicinity of MW-10D has been delineated to an area of 4,800 square feet. The soil impacts have not impacted groundwater and are of no concern relative to human health as the concentration of benzene is well below its direct



contact criterion and the benzene-impacted soil is situated eight feet bgs. No further action is warranted with respect to benzene impacted soil in the vicinity of MW-10D.

7.0 CONCLUSIONS

Based on the data generated during the FSRI, The Port Authority has drawn the following conclusions:

- LNAPL-impacted soil was not encountered at any soil sampling location in AOC-Western Area. Soil is impacted with PAH compounds at similar concentrations detected at other portions of the HHMT-Port Ivory Facility. Mobile LNAPL was not encountered on groundwater. Although minor groundwater impacts were detected with respect to PAH compounds, these impacts have not affected surface water quality in the adjacent stream. No further investigative or remedial actions are warranted in AOC-Western Area.
- FSRI soil sampling data confirmed the absence of elevated (i.e., above concentrations detected throughout the facility) concentrations of PAH compounds in soil at 2ASE-2 (WAW-2S). Therefore, no additional investigation or remedial actions are warranted for PAH compounds in soil at AOC-Area 2A Southeast.
- During the FSRI, LNAPL-impacted soil was delineated in AOC-Area 2A Southeast to a minimum area of approximately 4,000 square feet. Based on field observations, the LNAPL-impacted soil did not appear to extend below 6 feet below grade and its average thickness was 2 feet. Therefore, approximately 300 cubic yards of LNAPL-impacted soil is present in this AOC. Delineation of LNAPL-impacted soil to the east of AOC-Area 2A Southeast was completed at AOC-Western Area. To the west, sediment sampling in Bridge Creek and field observations of soil quality along the bank of Bridge Creek, demonstrate delineation of LNAPL impacts. The north and south limits of LNAPL-impacted soil were defined at soil borings. LNAPL impacts have been successfully delineated at AOC-Area 2A Southeast. Therefore, no additional investigation or remedial actions are warranted for LNAPL-impacted soil in AOC-Area 2A Southeast.
- Groundwater monitoring wells were installed at three locations which exhibited the greatest impacts based on field observations and TPHC concentrations. LNAPL was not encountered in



any of the three wells installed in AOC-Area 2A Southeast. Therefore mobile LNAPL is not located in AOC-Area 2A Southeast.

- Groundwater at AOC-Area 2A Southeast is impacted by PAH compounds. However, these
 impacts have not been detected in surface water samples collected from Bridge Creek located
 adjacent to this AOC. No further investigative or remedial actions are warranted in AOC-Area 2A
 Southeast.
- LNAPL-impacted soil was not encountered in any soil boring drilled along the active IMTT pipeline and the inactive Texas Eastern pipeline in AOC-TE Pipeline. Soil impacts are limited to PAH compounds, and these impacts are attributable to the former placement of fill materials by P&G. No further investigative or remedial actions are warranted at AOC-TE Pipeline.

8.0 RECOMMENDATIONS

Based on the results and conclusions of the FSRI, The Port Authority recommends the following:

- No further investigative or remedial actions are warranted for any environmental medium at AOC-Area 2A Southeast, AOC-Western Area, and AOC-TE Pipeline; and
- No further remedial actions are warranted for Site 2 beyond those specified in the approved Remedial Action Work Plan. An impervious cap will be constructed throughout approximately 50-90% of Site 2. Any areas at the site that will remain uncapped following redevelopment will be covered with a minimum of one foot of clean cover material with a demarcation barrier (i.e., geo-textile, plastic liner, or equivalent) between the original land surface and the cover.

APPENDIX A SOIL BORING AND WATER SAMPLING LOGS



Engineering Department Materials Engineering

		· · · · · · · · · · · · · · · · · · ·			T	g mepe	5 4				
Project	Port-Ivory	Voluntary C	Clean up		Contra	ctor	Craig	Boring No.	TE-1	Date:	11/9/07
Location	As Laid ou	it by H.M.Mc					Contract No.	426-06-008	Surface Elev.		
Spoon	3" O.D.	2.875" I.D.	Hammer/ Fall (in.)	140 lbs./30"			G	round Water	Level		
Hammer [*]	Туре	Auto	Hole Type	11		Date	Time	Depth (ft)		Remarks	
Inspector		J.Zarks			11	/9/07	11:30AM	4.0	In sample # 0		
Driller		R.Dollar.									
site_code	<u> </u>										
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Rei	marks	
01	0.0	2.0	НА	Hand Auger	Full	0.0		Fill Brown C-F	Sand & Grave	el,tr Silt	
02	2.0	4.0	НА	Hand Auger	Full	0,0	Same				
03	4.0	6.0	НА	Hand Auger	Full	0.0	Same				
	6.0									Botto	m of Boring
							Note: All samp discarded,sam	oles were scre	ened with PID	-Meter &	,,, o, cornig
				, , , , , , , , , , , , , , , , , , , ,			uscaraeu,san	ipie # 02 (0.0	-4.0 jwas save	· u .	
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Project	Port-Ivory	Voluntary C	lean up		Contra	ctor	Craig	Boring No.	TE-2	Date:	11/9/07
Location	As Laid ou	t by H.M.Mc	.Donald.				Contract No.	426-06-008	Surface Elev.		
Spoon	3" O.D.	2.875" I.D.		140 lbs./30"			G	round Water	Level		
Hammer 1	уре	Auto	Hole Type	1] [Date	Time	Depth (ft)		Remarks	
Inspector	MINOR MAN	J.Zarks			11	/9/07	1:35PM	5.0	in sample #	03	
Driller		R.Dollar									
site_code											
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Re	marks	
01	0.0	2.0	НА	Hand Auger	Full	0.0	Fill Reddish	-brown C - F S	Sand & Gravel	tr.Silt,	
02	2.0	4.0	НА	Hand Auger	Full	0.0	Fill Dark Gra	ay C-F Sand &	Gravel,tr.Silt		
03	4.0	6.0	НА	Hand Auger	Fuli	0.0	Fill Brown C-F	Sand,tr.Grav	el,tr.Silt.		
04	6.0	8.0	НА	Hand Auger	Full	0.0	Fill Brown M-F	Sand,tr.Silt.			
	8.0									Botto	m of Boring.
							Note:All samp discarded,san			-Meter &	

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Project	Port-Ivory	Voluntary C	Clean up		Contra	ctor	Craig	Boring No.	TE-3	Date	11/9-14/07
Location	As Laid ou	t by H.M.Mc	.Donald.				Contract No.	426-06-008	Surface Elev	<i>'</i> .	
Spoon	3" O.D.	2.875" I.D.	Hammer/ Fall (in.)	140 lbs./30"		,,	G	round Water	Level		
Hammer [*]	Туре	Auto	Hole Type	1	[Date	Time	Depth (ft)		Remark	S
Inspector		J.Zarks			11.	/14/07	8:20AM	5.0	In sample #	03	
Driller		C.Cohen									
site_code	3										
Sample No.	1	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	cription and F	Remarks	
01	0.0	2.0	НА	Hand Auger	Full	0.0	Fill Reddish-b	rown C-F Sar	nd & Gravel,t	r.Silt.	
02	2.0	4.0	НА	Hand Auger	Full	0.0	Grayish-brow	n C-F Sand,Li	ittle <u>Gravel,tr</u>	.Silt	
03	4.0	6.0	НА	Hand Auger	Full	0.0	Same				
~ 9 <u>4</u>	6.0	8.0	SS	12-14-10-15	18"	0.0	Same with Co	obbles	**************************************		water or very and a second
05A	8.0	9.5	SS	8-11-8	16"	0.0	Same				
	9.5									Ch	ange in Strat
05B	9.5	10.0	SS	4	4"	0.0	Brown Peat.		······································		
	10.0										ttom of Borin
							Note:All samp discarded,sar				
				-							
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Project	Port-Ivory	Voluntary C	Clean up		Contra	ctor	Craig	Boring No.	TE -4	Date	11/16/07
Location	As Laid ou	t by H.M.Mo	c.Donald.				Contract No.	426-06-008	Surface Elev		
Spoon			Fall (in.)				G	round Water	Level		
Hammer [*]	Туре		Hole Type			Date	Time	Depth (ft)		Remarks	
Inspector		J.Zarks.			11,	/16/07	2:30PM	6.5	In sample #	05	
Driller		C.Cohen.									
site_code	~ ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~					,					
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and R	emarks	
01	0.0	0.5	RC	Roller-bit	Full	0.0	Asphalt Layer				
	0.5									Cha	nge in Strata
02	0.5	2.0	HA	Hand Auger	Full	0.0	Fill Brown C - Rock.	F Sand & Gra	vel,some Col	obles & C	rushed
03	2.0	4.0	НА	Hand Auger	Full	0.0	Same				
4	4.0	6.0	НА	Hand Auger	Full	0.0	Same				
05A	6.0	7.5	SS	4-4-3	14"	0.0	Fill Brown M-F	Sand,tr white	Silty Sludge		
	7.5									Chai	nge in Strata
05B	7.5	8.0	SS	1	5"	0.0	Grayish-white	Silty Sludge.			
	8.0									Botto	om of boring.
							Note:All samp discarded,sam	es screened v ple # 05 (6.0'-	vith PID-Mete -6.5′) was sav	r & ed.	
							2 -16 oz. Samı	oles & 1 -2 oz	sample was	submitted	I ,



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					Borin	g Repo	π				
Project	Port-Ivory \	Voluntary C	lean up	wrance	Contra	ctor	Craig	Boring No.	TE-5	Date	11/16/07
Location	As Laid ou	t by H.M.Mc	.Donald.		T		Contract No.	426-06-008	Surface Elev.		
Spoon		2.875" I.D.	Fall (in.)	140 lbs./30"			G	round Water	Level		
Hammer 7	Гуре	Auto	Hole Type	1		Date	Time	Depth (ft)		Remarks	
Inspector		J.Zarks.			11,	/16/07	11:30AM	7.0	In sample # ()5	
Driller		C.Cohen.		Livery							
site_code											
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Re	marks	
01	0.0	0.3	RC	Roller-bit	Full	0.0	Aspalt Layer		· ·		
	0.3								,	Cha	nge in Strata
02	0.3	2.0	НА	Hand Auger	Full	0.0	Fill C-F Sand	& Gravel,tr.Si	lt.		
03	2.0	4.0	НА	Hand Auger	Full	0.0	Same				
04	4.0	6.0	HA	Hand Auger	Full	0.0	Same				
05	6.0	8.0	SS	12-16-18-9	20"	0.0	Fiff Brown M-I	Sand & Silt,s	some Crushed	Rock &	Cobbles
06A	8.0	8.5	SS	9	6"	0.0	Same				
	8.5									Cha	nge in Strata
06B	8.5	10.0	SS	2-1-1	18"	0.0	Brown Peat				
											om of boring
							Note:All samp discarded,san				
							MARIE AVIII				
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								mount mounts at the same of th			

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Project	Port-Ivory	Voluntary C	Clean up		Contra	ctor	Craig	Boring No.	TE-6	Date 11/14-15/07
Location	As Laid ou	t by H.M.Mc					Contract No.	426-06-008	Surface Elev.	
Spoon			Hammer/ Fall (in.)				G	round Water	Level	
Hammer [*]	Гуре		Hole Type			Date	Time	Depth (ft)		Remarks
Inspector		J.Zarks			11,	/14/07	2:45PM	5.0	In sample # (
Driller		C.Cohen								
site_code										
	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Re	marks
01	0.0	2.0	НА	Hand Auger	Full	0.0	Fill Reddish	-brown C-F S	and & Gravel,	Cobbles, Boulders.
02	2.0	4.0	НА	Hand Auger	Full	0.0	Same			
03	4.0	6.0	HA	Hand Auger	Full	0.0	Same		•	
04A 6.0 7.0 SS 6-6 10" 0.0 Same										
<u> </u>	7.0									Change in Strata
04B					12"	0.0	Brown Peat.			
	8.0									Bottom of Boring.
							Note:All samp discarded,sam	oles were scre	ened with PID	-Meter &
							3,000,001,	ipic	o.o) was save	· ·
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Project	Port-Ivory	Voluntary (Clean up		Contra	ctor	Craig	Boring No.	BH-TE 6B	Date	11/14/07
Location	As Laid ou	t by H.M.Me	Donald.		1		Contract No.	426-06-008	Surface Elev.		
Spoon			Fall (in.)				G	round Water	Level		
Hammer	Туре		Hole Type			Date	Time	Depth (ft)	F	Remarks	
Inspector		J.Zarks		··········							
Driller		C. Cohen				· · · · · · · · · · · · · · · · · · ·					
site_code		T		<u></u>							
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Descr	iption and Ren	narks	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
01	0.0	2.0	НА	Hand Auger	Full	0.0	Fill Brown C -F Sand & Gravel,tr. Silt				
02	2.0	4.0	НА	Hand Auger	Full	0.0	Fill Grayish-bro	own C- F Sar	nd & Gravel		
03	4.0	6.0	НА	Hand Auger	Full	0.0	Same				
	6.0								Obstructio	on, botto	om of boring.
							Note: All samp	les were scree			
777											
										7/4II/	

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Project	Port-Ivory	Voluntary (Clean up		Contra	actor	Craig	Boring No.	BH-TE 6C	Date	11/14/07		
Location	As Laid ou	at by H.M.Mo					Contract No.	426-06-008	Surface Elev.				
Spoon			Hammer/ Fall (in.)					round Water					
Hammer '	Type		Hole Type			Date		1					
inspector		J.Zarks	1-10/0 1960			Date	Time	Depth (ft)		Remarks			
Driller													
		C. Cohen									······································		
site_code		T		***************************************		·,							
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Rer	narks			
01	0.0	2.0	НА	Hand Auger	Full	0.0	Fill Brown C -F	= Sand & Cro	· ol				
00								Sand & Grav	/ei				
02	2.0	4.0	HA	Hand Auger	Full	0.0	Same						
03	4.0	5.0	HA	Hand Auger	Full	0.0	Same						
, a ^{ng 18} 18 <u></u>	5.0								Obstructio	n hottom	of boring		
S. J										.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
							Note: All samp	les were scre	ened with PID	-Meter 8	<u> </u>		
							discarded.						
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Project	Port-Ivory	Voluntary C	Clean up		Contra	ctor	Craig	Boring No.	BH-TE 6D	Date	11/14/07
Location	As Laid ou	t by H.M.Mc	c.Donald.				Contract No.	426-06-008	Surface Elev.		
Spoon			Hammer/ Fall (in.)				G	Fround Water	Level		
Hammer Type)		Hole Type			Date	Time	Depth (ft)		Remarks	
Inspector		J.Zarks									
Driller		C. Cohen									
site_code				7							
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Re	marks	
01	0.0	2.0	НА	Hand Auger	Full	0.0	Fill Brown C -	F Sand & Grav	/el		
02	2.0	4.0	НА	Hand Auger	Full	0.0	Same				
03	4.0	5,0	НА	Hand Auger	Full	0.0	Same				
	5.0								Obstructi	on,botto	m of boring
Z .								,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	111111111111111111111111111111111111111	· · · · · · · · · · · · · · · · · · ·	
							Note: All sam	nles were scre	ened with DIF	Motor	2 discorded
							Note. All Sain	pies weie scie	ened with Fit	-weter	<u> </u>
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Project	Port-Ivory	Voluntary C	lean up		Contra	ctor	Craig	Boring No.	TE-7	Date	11/9/07	
Location	As Laid ou	t by H.M.Mc	.Donald.	11011 11011111	· · · · · · · · · · · · · · · · · · ·		Contract No.	426-06-008	Surface Elev.			
Spoon			Hammer/ Fall (in.)				G	round Water	Level			
Hammer 1	Гуре		Hole Type		1	Date	Time	Depth (ft)		Remarks		
inspector		J.Zarks			11	/9/07	8:30AM	6.0	In sample #	04		
Driller		C. Cohen										
site_code		F									***************************************	
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	cription and Re	emarks	'\	
01	1.0	2.0	НА	Hand Auger	Full	0.0	Fill Brown C-F	Sand & Grav	vel.			
02	2.0	4.0	HA	Hand Auger	Full	0.0	Same					
03	4.0	6.0	HA	Hand Auger	Full	0.0	0 Same					
04	6.0	7.0	НА	Hand Auger	Full	0.0	Same	Same				
	. 7.0									Cha	inge in Strata	
05	7.0 8.0 SS 0-1				12"	0.0	Brown Peat		· · · · · · · · · · · · · · · · · · ·			
	8.0									~~~~~~~~~~~~~	om Of Boring.	
							Note:All samp discarded,sar					
											· · · · · · · · · · · · · · · · · · ·	
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Project	Port-Ivory	Voluntary (Clean up		Contra	ctor	Craig	Boring No.	TE-8	Date:	11/21/07
Location	As Laid ou	t by H.M.Mo	c.Donald.				Contract No.	426-06-008	Surface Elev.		
Spoon	3" O.D.	2.875" I.D.	Hammer/ Fall (in.)	140 lbs./30"		, , , , , , , , , , , , , , , , , , , ,	G	round Water			
Hammer 1	Гуре	Auto	Hole Type	1		Date	Tìme	Depth (ft)		Remarks	
Inspector		J.Zarks			11.	/21/07	11:05AM	7.0	In sample #		
Driller		J.Finch								<u> </u>	
site_code				THE STATE OF THE S							
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Re	marks	
01	0.0	2.0	НА	Hand Auger	Full	0.0	Fill Brown C -	F Sand & Gra	vel,some Cob	bles,bou	ders,tr Silt.
02	2.0	4.0	HA	Hand Auger	Full	0.0	Same				i
03	4.0	6.0	НА	Hand Auger	Full	0.0	Fill Reddish-br	own M-F San	d,some Silt.		
04	6.0	8.0	НА	Hand Auger	Full	0.0	0.0 Fill Reddish-brown M-F Sand,some Silt.				
	8.0									ge in Strata	
05	8.0	9.0	HA	Hand Auger	Full	0.0	Brown Peat.				
	9.0									Botto	m of Boring
							Note:All sampl discarded,no s	es were scree amples saved	ned with PID-	Meter &	<u> </u>
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Project	Port-Ivory	Voluntary C	Clean up		Contra	ctor	Craig	Boring No.	BH-TE 8A	Date:	11/12/07
Location	As Laid ou	t by H.M.Mc	Donald.				Contract No.	426-06-008	Surface Elev.		
Spoon	3" O.D.	2.875" I.D.	Fall (in.)	140 lbs./30"			G	round Water	Level		
Hammer 1	Гуре	Auto	Hole Type	1	[Date	Time	Depth (ft)		Remarks	
Inspector		J.Zarks			11/	12/07	12:00PM	6.0	In sample # 0	13	, , , , , , , , , , , , , , , , , , , ,
Driller		R.Dollar.		WHAT I							
site_code											
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Re	marks	
01	0.0	2.0	НА	Hand Auger	Full	0.0	Fill Grayish-br	own C-F Sanc	l & Gravel,tr.S	ilt	
02	2.0	4.0	HA	Hand Auger	Full	0.0	Same	-			
03	4.0	6.0	HA	Hand Auger	Full	0.0	Same				
04	6.0	8.0	HA	Hand Auger	Full	0.0					
	8.0								Botto	m of Boring.	
	0.0						NoteObstruction discarded, san	on,all samples	were screene 6.0')was saved	d with P	ID-Meter &
								,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
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Port-Ivory \										
	Voluntary C	lean up		Contra	ctor	Craig	Boring No.	TE-9	Date:	11/12/07
As Laid ou	t by H.M.Mc					Contract No.	426-06-008	Surface Elev.		
3" O.D.	2.875" I.D.		140 lbs./30"			G	round Water	Level		
/ре	Auto	Hole Type	1	Į į	Date	Time	Depth (ft)		Remarks	
	J.Zarks			11/	12/07	2:30PM	6.2	in sample # ()3	
	R.Dollar.									

Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Re	marks	
0.0	1.0	НА	Hand Auger	Full	0.0		-	Top Soil		
1.0									Chai	nge in Strata
1.0	2.0	НА	Hand Auger	Full	0.0	0.0 Fill Grayish-brown C -F Sand & Gravel,tr.Silt.				
2.0	4.0	НА	Hand Auger	Full	0.0	0.0 Same with some Cinders & Slag				
4.0	6.0	НА	Hand Auger	Full	0.0					
6.0	8.0	НА	Hand Auger	Full	0.0	Same with so	me Fibers.	·	· · · · · · · · · · · · · · · · · · ·	<u> </u>
8.0	9.0	НА	Hand Auger	Full	0.0	Same				
9.0										m of Boring.
									-Meter &	
	3" O.D. pe Start Depth (ft) 0.0 1.0 2.0 4.0 6.0 8.0	3" O.D. 2.875" I.D. pe Auto J.Zarks R.Dollar. Start Depth (ft) (ft) 0.0 1.0 1.0 2.0 2.0 4.0 4.0 6.0 6.0 8.0 8.0 9.0	Auto	3" O.D. 2.875" I.D. Hammer/ Fall (in.) 140 lbs./30" pe Auto Hole Type 1 J.Zarks R.Dollar. Start Depth (ft) Method Spoon Blows/6" 0.0 1.0 HA Hand Auger 1.0 2.0 HA Hand Auger 2.0 4.0 HA Hand Auger 4.0 6.0 HA Hand Auger 6.0 8.0 HA Hand Auger 8.0 9.0 HA Hand Auger Hand Auger	3" O.D. 2.875" I.D. Hammer/ Fall (in.) 140 lbs./30"	3" O.D. 2.875" I.D. Hammer/ Fall (in.) 140 lbs./30"	3" O.D. 2.875" I.D.	3" O.D. 2.875" I.D.	3" O.D. 2.875" I.D. Hammer/Fall (in.) 140 lbs./30" Ground Water Level	Start Depth (ft) End Depth (ft) Method (ft) Full 0.0 Top Soil



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Port-Ivory \	Voluntary C	Clean up		Contra	ctor	Craig	Boring No.	TE-10	Date:	11/21/07
As Laid out	t by H.M.Mc	.Donald.		··		Contract No.	426-06-008	Surface Elev.		
3" O.D.	2.875" I.D.		140 lbs./30"			G	round Water	Level		
/pe	Auto	Hole Type	1		Date	Time	Depth (ft)		Remarks	
	J.Zarks			11/	/21/07	1:10PM	7.0	In sample # 0)4	
	J.Finch									
Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Re	marks	
0.0	2.0	НА	Hand Auger	Full	0.0	Fill dark Gray Silt,Brick,Cind	C-F Sand & G ers & Slag.	iravel,some C	obbles,lit	tle
2.0	4.0	НА	Hand Auger	Full	0.0	Same				
4.0	6.0	НА	Hand Auger	Full	0.0	Same				
6.0	7.0	НА	Hand Auger	Full	0.0	Same				
7.0									B0tto	m of Boring
						Note:All samples were screened with PID-Met				
										
						,				
										
								· · · · · · · · · · · · · · · · · · ·		
	As Laid ou 3" O.D. //pe Start Depth (ft) 0.0 2.0 4.0 6.0	As Laid out by H.M.Mc 3" O.D. 2.875" I.D. 7pe Auto J.Zarks J.Finch Start Depth (ft) 0.0 2.0 2.0 4.0 4.0 6.0 6.0 7.0	Auto	As Laid out by H.M.Mc.Donald. 3" O.D. 2.875" I.D. Hammer/ Fall (in.) 140 lbs./30" //pe	As Laid out by H.M.Mc.Donald. 3" O.D. 2.875" I.D. Fall (in.) 140 lbs./30" //pe	As Laid out by H.M.Mc.Donald. 3" O.D. 2.875" I.D. Hammer/Fall (in.) 140 lbs./30" //pe	As Laid out by H.M.Mc.Donald. 3" O.D. 2.875" I.D. Fall (in.) 140 lbs./30" Gree Auto Hole Type 1 Date Time J.Zarks 11/21/07 1:10PM J.Finch Start Depth (ft) Method Spoon Blows/6" Recov'd Reading 0.0 2.0 HA Hand Auger Full 0.0 Same 4.0 6.0 HA Hand Auger Full 0.0 Same 4.0 6.0 HA Hand Auger Full 0.0 Same 6.0 7.0 HA Hand Auger Full 0.0 Same 7.0 Note:All samp	As Laid out by H.M.Mc.Donald. 3" O.D. 2.875" I.D Hammer/ Fall (in.) 140 lbs./30" Ground Water pre Auto Hole Type 1 Date Time Depth (ft) J.Zarks J.Finch As Laid out by H.M.Mc.Donald. 3" O.D. 2.875" I.D. Fall (in.) 140 lbs./30" Ground Water Level	As Laid out by H.M.Mc.Donald. 3" O.D. 2.875" I.D. Fall (in.) 140 lbs./30" Tound Water Level Auto Hole Type 1 Date Time Depth (ft) Remarks J.Zarks 11/21/07 1:10PM 7.0 In sample # 04 J.Finch Start Depth (ft) (ft) Method Spoon Blows/6" Recov'd Reading 0.0 2.0 HA Hand Auger Full 0.0 Same 4.0 6.0 HA Hand Auger Full 0.0 Same 6.0 7.0 HA Hand Auger Full 0.0 Same	



Boring Report Project Port-Ivory Voluntary Clean up Contractor Craig Boring No. BH-TE 10A Date 10/13/07 Location As Laid out by H.M.Mc.Donald. Contract No. 426-06-008 Surface Elev. Hammer/ Spoon Fall (in.) **Ground Water Level** Hammer Type Hole Type Date Time Depth (ft) Remarks Inspector J.Zarks Driller C. Cohen site_code Start Depth End Depth Sample PID Re-Method Spoon Blows/6" No. Sample Description and Remarks (ft) (ft) cov'd Reading 01 0.0 1.0 HA Hand Auger Full 0.0 Top Soil 1.0 Change in Strata 02 1.0 2.0 HA Hand Auger Full 0.0 Fill Grayish-brown C-F Sand & Gravel. 03 2.0 4.0 HA Hand Auger Full Same with brick, cinders, slag. 0.0 *j*4 4.0 5.2 HΑ Hand Auger Full 0.0 Same 5.2 Obstruction, bottom of boring. Note:All samples were screened with PID-Meter & discarded ,no samples saved.



					Borin	g Repo	ort				
Project	Port- Ivory	Voluntary	clean up		Contra	actor	Craig	Boring No.	AOC-WA-1	Date	11/5/2007
Location	As laid out	by Hatch N	Nott Mc.Dor	nald			Contract No.	426-06-008	Surface Elev.	1	
Spoon	2" O.D.	1.375" I.D.	Hammer/ Fall (in.)	140 lbs./30"			G	Ground Water			
Hammer ⁻	Гуре	Safety	Hole Type	1		Date	Time	Depth (ft)		Remarks	
Inspector		J.Zarks		VIII.	1	1/5/07	9:30AM	5.0	in sample # (*******	,
Driller		C.Cohen									
site_code											
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Rei	marks	
01	0.0	2.0	НА	Hand Auger	Full	0.0	Fill brown C-F	Sand & Grav	el,tr.Silt.		
02	2.0	4.0	НА	Hand Auger	Full	0.0	Black C-F Sar	nd &Gravel,littl	e silty Clay		
03	4.0	5.0	HA	Hand Auger	Full	0.0	Same				
	5.0									Cha	inge in strata
04	5.0	6.0	НА	Hand Auger	Full	0.0	Brown Peat			One	mge in strata
	6.0									·	
						i				Botto	om of boring.
							Note:All sampl	es screened w	vith PID-meter	&	
							discarded,sam	ple #03(4.0' - 4	4.5') was save	d.	
								, mun			

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					DOM	g Repo	ort						
Project	Port-Ivory	Voluntary-	clean up		Contra	ector	Craig	Boring No.	AOC-WA-5	Date	11/8/2007		
Location	As laid ou	t by Hatch N	Nott Mc.Dor	nald			Contract No.		Surface Elev.		. 170/2001		
Spoon	2" O.D.	1.375" I.D.	Hammer/ Fall (in.)	140 lbs./30"				round Water					
Hammer	Туре	Safety	Hole Type	1		Date	Time	Depth (ft)		Remarks			
Inspector	· AND IN THE CONTRACT OF THE C	J.Zarks			1	1/8/07	11:00AM	5.0	In sample # 0				
Driller		R.Dollar						0.0	Jiii Sample # 0				
site_code													
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6*	Re- cov'd	PID Reading		Sample Desc	ription and Re	marks			
01	0.0	2.0	НА	Hand Auger	Full	0.0	Fill Reddish-bi	rown C-F San	d & Gravel				
02	2.0	4.0	НА	Hand Auger	Full	0.0	Fill Grayish-bla	ack C-F Sand	& Gravel				
03	4.0	6.0	HA	Hand Auger	Full	32.6	32.6 Same						
04	6.0	7.5	НА	Hand Auger	Full	0.0	Brown Sand						
	7.5									Chai	nge in Strata		
05					Full	0.0	Brown Peat.	······································		Onar	ige iii Strata		
	8.0									Botton	n Of Boring.		
							Note:All sample discarded,sam	es screened v ples #03(4.0'	vith PID-Meter 4.5') & #04(6.5	· &			
								·					
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Project	Port-Ivory	Voluntary (Clean up		Contra	ctor	Craig	Boring No.	2B-WA12	Date	11/9/07
Location	As Laid ou	t by H.M.Mc	Donald.				Contract No.	426-06-008	Surface Elev.		
Spoon			Hammer/ Fall (in.)				G	round Water	Level		
Hammer 1	Туре		Hole Type		1	Date	Time	Depth (ft)		Remarks	
Inspector		J.Zarks			11	/9/07	9:05AM	5.0	In sample # ()4	
Driller		R.Dollar									
site_code	!										
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Re	marks	
01	0.0	1.0	НА	Hand Auger	Full	0.0	Fill Brown C -F Sand & Gravel,some Metal,some wood.				
02	1.0	2.0	HA	Hand Auger	Full	0.0	Same				
	2.0 4.0 HA Hand A									Chan	ge in Strata
03	2.0 4.0 HA Hand At				Full	0.0	Grayish-black	C-F Granular	size Cinders.		
	4.0									Chan	ge in Strata
04	4.0 5.5 HA Hand Aug				Full	0.0	Brown M-F Sa	ınd.			
	5.5									Chan	ge in Strata
05	5.5	6.0	НА	Hand Auger	Full	0.0	Brrown Peat.		nega		
	6.0									B0tto	om of Boring.
							Note:All samp discarded,sam				

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Project	Port-Ivory \	/oluntary C	lean up		Contrac	ctor	Craig	Boring No.	2B-WA13	Date	11/8/07
Location	As Laid out	t by H.M.Mc	.Donald.				Contract No.	426-06-008	Surface Elev.	·	ļ
Spoon			Hammer/ Fall (in.)				G	round Water	Level		
Hammer 1	Гуре		Hole Type		[Date	Time	Depth (ft)		Remarks	***************************************
Inspector		J.Zarks			11	/8/07	11:15AM	3.5	In sample # ()3	
Driller		C. Cohen									
site_code											
Sample No.		End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading	Sample Description and Remarks				
01	0.0	2.0	НА	Hand Auger	Full	0.0	Fill Reddish-brown C-F Sand & Gravel, Crushed Rock.				
02	2.0	3.0	НА	Hand Auger	Full	0.0	Same				
03	3.0	4.0	НА	Hand Auger	Full	0.0	Grayish-black	: C-F Sand,Ci	nders & Slag.		
	4.0	5.5	HA	Hand Auger	Full	0.0	Same			W-1000	
	5.5							•		·	
05	5.5	6.0	HA	Hand Auger	Full	0.0	Brown Peat			-	
	6.0									Bott	om Of Boring
									eened with PIE '-3.5')was sav		Ž×
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Project	Port-Ivory	Voluntary-c	lean up		Contra	ctor	Craig	Boring No.	AOC-WA14 Date 11/8/2007		
Location	As laid out	by Hatch M	lott Mc.Don	ald			Contract No.	426-06-008	Surface Elev.		
Spoon	2" O.D.	1.375" I.D.	Hammer/ Fall (in.)	140 lbs./30"			G	round Water	Level		
Hammer 1	Гуре	Safety	Hole Type	1	1	Date	Time	Depth (ft)	Remarks		
Inspector		J.Zarks			11	/8/07	10:00AM	3.7	In sample # 02		
Driller		R.Dollar									
site_code											
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading	Sample Description and Remarks				
01	0.0	2.0	НА	Hand Auger	Full	0.0	Misc.Fill Redd	ish-brown C-F	Sand & Gravel,Metal,,Wood.		
	2.0						Change in Strata				
02	2.0	4.0	НА	Hand Auger	Full	0.0					
3	4.0	5.0	HA	Hand Auger	Full	0.0					
\	5.0								Bottom Of Boring.		
									Dottom of Boring.		

							Note:All samp	les screened v	with PID-Meter &		
							discarded,sam	ple #02(3.0'-3	3.5')was saved.		
				- 107 HILLS AND AND AND AND AND AND AND AND AND AND							

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Engineering Department

Materials Engineering Boring Report Port-Ivory Voluntary Clean up Project Contractor Craig AOC-WA15 Date Boring No. 11/7/07 Location As Laid out by H.M.Mc.Donald. Contract No. 426-06-008 Surface Elev. Spoon Fall (in.) **Ground Water Level** Hammer Type Hole Type Date Time Depth (ft) Remarks Inspector J.Zarks 11/17/07 1:30PM 6.5 In sample # 04 Driller C.Cohen site_code Sample Start Depth End Depth Re-PID Method Spoon Blows/6" Sample Description and Remarks No. (ft) (ft) cov'd Reading Misc.Fill C-F Brown Sand & Gravel, Metal, Wood, Crushed Rock 01 0.0 2.0 HA HandAuger Full 0.0 02 2.0 4.0 HA HandAuger Full 0.0 Same 03 4.0 6.0 HA HandAuger Full 0.0 Fill brown C-F Sand & Gravel ,tr,Silt 04 6.0 8.0 HA HandAuger Full 0.0 Same 8.0 **Bottom Of Boring** Note:All samples were screened with PID-Meter & discarde, sample #04(6.0'-6.5') was saved.



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Project	Port-Ivory	Voluntary-c	lean up		Contra	ctor	Craig	Boring No.	AOC-WA16 Date 11/8/2007			
Location	As laid out	by Hatch M	ott Mc.Don	ald			Contract No.	426-06-008	Surface Elev.			
Spoon	2" O.D.	1.375" l.D.	Hammer/ Fall (in.)	140 lbs./30"			G	round Water	-			
Hammer '	Туре	Safety	Hole Type	1		Date	Time	Depth (ft)	Remarks			
Inspector		J.Zarks			11	1/8/07	9:00AM	5.5	In sample # 03			
Driller		R.Dollar										
site_code												
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Remarks			
01	0.0	2.0	НА	Hand Auger	Full	0.0	Fill Reddish-brown C-F Sand & Gravel, Crushed Rock.					
02	2.0	4.0	НА	Hand Auger	Full	0.0	Same					
	4.0								Change in Strata			
า <u>3</u>							C-F Sand,Cin	Sand,Cinders & Slag,Root-fibers.				
04	6.0	7.5	HA	Hand Auger	Full	0.0	Same					
	7.5								Change in Strata			
05	7.5	8.0	НА	Hand Auger	Full	0.0	D		Change in Strata			
		0.0		Halla Auger	Tuli	0.0	Brown Peat.					
	8.0								Bottom Of Boring.			
							Note:All sample discarded,sam	es screened v ple.# 03 (4.5'-	vith PID-Meter & 5.0') was saved			

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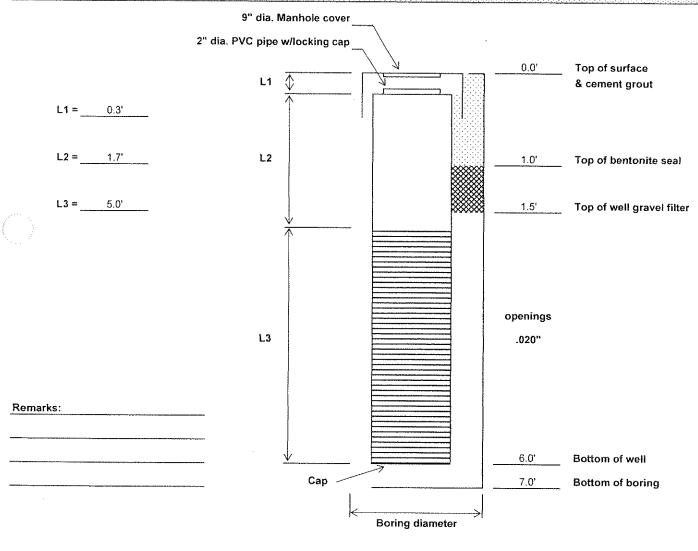
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Project	Port-Ivory	Voluntary (Clean up		Contra	ctor	Craig	Boring No.	MW 16-WA	Date:	12/7/07
Location	As Laid ou	t by H.M.Mo	Donald.				Contract No.	426-06-008	Surface Elev.		
Spoon	3" O.D.	2.875" I.D.	Hammer/ Fall (in.)	140 lbs./30"			G	round Water	Level		
Hammer 1	уре	Auto	Hole Type	1		Date	Time	Depth (ft)	F	Remarks	
Inspector		J.Zarks									
Driller	· · · · · · · · · · · · · · · · · · ·	C.Cohen									
site_code				· · · · · · · · · · · · · · · · · · ·				:			
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Ren	narks	
	0.0	7.0	НА	Hand Auger	Full			Previously	driilled as WA	-16	
				and the second s							
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Well Installation Report

PROJECT:	Port Ivory-Volu	intary Clean ι	ıp.			CONTRA	ACT NO.	426-06-008	Date:	12/7/2007
LOCATION:	As Laid out by	H.M.Mc.Don	ald.			CONTRA	ACTOR	Craig		
WELL NO.	MW 1	6-WA	WELL TYPE	"A" Monitor	-		DATE:	12/7/07	?	
DRILLER:	C.Cohen.				INSPECTOR:	J.Zarks				
Well Develo	pment Report	(NOTE: WA	TER LEVEL READING	S FROM TOP OF	PVC)					
DATE:	12/10/07	WATER L	EVEL BEFORE:		3.6'	WATER	LEVEL AFTER:		3.4'	
TAKEN	60	MINUTES	AFTER DEVELO	PMENT						



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·				,	Boring Report					
Project	Port-Ivory	Voluntary-c	lean up		Contra	ctor	Craig	Boring No.	AOC-WA17 Date 11/9/2007	
Location	As laid out	by Hatch M	lott Mc.Don	ald	.		Contract No.	426-06-008	Surface Elev.	
Spoon	2" O.D.	1.375" I.D.	Hammer/ Fall (in.)	140 lbs./30"			G	round Water	Level	
Hammer	Туре	Safety	Hole Type	1		Date	Time	Depth (ft)	Remarks	
Inspector	r	J.Zarks			11	/9/07	9:35AM	2.1	In sample # 03	
Driller		C.Cohen.								
site_code	9									
Sample No.		End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	cription and Remarks	
01	0.0	1.0	HA	Hand Auger	Full	0.0	Top Soil			
	1.0								Change in Strata	
02	1.0	2.0	НА	Hand Auger	Full	0.0	Grayish-brow	n C-F Sand,litt	tle Silt.	
າ <u>3</u>	2.0	4.0	НА	Hand Auger	Full	0.0	Same			
04	4.0	6.0	HA	Hand Auger	Full	0.0	Same			
	6.0								Bottom Of Boring.	
									ened with PID-Meter & discarded 04(5.5'-6.0') were saved.	
2000-00-00-00-00-00-00-00-00-00-00-00-00										

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Project	Port-Ivory	Voluntary C	lean up		Contrac	ctor	Craig	Boring No.	2B-WA17	Date:	11/9/07
Location	As Laid ou	t by H.M.Mc	.Donald.		r ··········		Contract No.	426-06-008	Surface Elev.		
Spoon	3" O.D.	2.875" I.D.	Hammer/ Fall (in.)	140 lbs./30"			G	Fround Water	Level		
Hammer 1	ype	Auto	Hole Type	1	[)ate	Time	Depth (ft)		Remarks	
Inspector		J.Zarks			11	/9/07	AM	2.1	In sample #	02	
Driller		C.Cohen									
site_code											
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	cription and Re	emarks	
01A	0.0	1.0	НА	HandAuger	Full	0.0	Top Soil				
	1.0							,		Cha	nge in Strata
01B	1.0	2.0	HA	HandAuger	Full	0.0	Fill Grayish-E	Brown C-F San	id & Little Silt.		
02	2.0	4.0	НА	HandAuger	Full	0.0	Fill Grayish-E	Black C-F Sand	d & Gravel.		
	4.0	6.0	НА	HandAuger	Full	0.0	Same				
	6.0									Bott	om Of Boring
							Note:All sam discarded,sa saved.	ples were scre mples # 01B(1	eened with PII 1.5'-2.0') & #0	O-meter & 3(5.5'-6.0	') were
											WAIRING TO THE TAXABLE TO THE TAXABL
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Date: 11/8/07
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Remarks
03
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Change in Strata
Change in Strata
Bottom of Boring
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Engineering Department Materials Engineering

Project Port-Vory Voluntary Clean up Contractor Craig Boring No. SH-2 Date: 11/20/07		· · · · · · · · · · · · · · · · · · ·				ווויטט	д керо	1 L	·	······································		
Spoon 3" O.D. 2.875" I.D. Fall (in.) 140 lbs./30" Sround Water Level	Project	Port-Ivory	Voluntary C	Clean up		Contra	ctor	Craig	Boring No.	SH-2	Date:	11/20/07
Spoon 3" O.D. 2.875" I.D. Fall (in.) 140 lbs./30" Ground Water Level Hammer Type Auto Hole Type 1 Date Time Depth (ft) Remarks Inspector J.Zarks 11/20/07 1:55PM 4.0 In sample # 03 Driller C.Cohen Start Depth (ft) End Depth (ft) Method Spoon Blows/6" cov'd Recov'd Reading PID Reading Sample Description and Remarks 01 0.0 0.5 HA Roller-bit Full 0.0 Asphalt Layer 02 0.5 2.0 HA Hand-Auger Full 0.0 Fill Grayish-brown C-F Sand, tr. Silt. Change in Strate 03 2.0 4.0 HA Hand-Auger Full 0.0 Same 05A 6.0 7.0 HA Hand-Auger Full 0.0 Same 05B 7.0 8.0 HA Hand-Auger Full 0.0 Wood Sample Seriet Level	Location	As Laid ou	t by H.M.Mc		•	· · · · · · · · · · · · · · · · · · ·		Contract No.	426-06-008	Surface Elev.		
Inspector	Spoon	3" O.D.	2.875" I.D.		140 lbs./30"			G	round Water	Level		
Driller C.Cohen To C.Cohen To C.Cohen To C.Cohen To C.Cohen To C.Cohen To C.Cohen To C.Cohen To C.Cohen To Change in Strate Sample Description and Remarks Change in Strate O1 0.0 0.5 HA Roller-bit Full 0.0 Asphalt Layer O2 0.5 2.0 HA Hand-Auger Full 0.0 Fill Grayish-brown C-F Sand & Gravel, tr. Silt, tr Cobbles. O3 2.0 4.0 HA Hand-Auger Full 0.0 Brown C-F Sand, tr. Silt O4 4.0 6.0 HA Hand-Auger Full 0.0 Same O5A 6.0 7.0 HA Hand-Auger Full 0.0 Same O5B 7.0 8.0 HA Hand-Auger Full 0.0 Wood Bottom of Boring Note:All samples were screened with PID-Meter &	Hammer 1	Гуре	Auto	Hole Type	1		Date	Time	Depth (ft)	Remarks		
Start Depth Find Depth No. Nethod Spoon Blows/6" Recovd Reading Start Depth No. No	Inspector		J.Zarks			11	/20/07	1:55PM	4.0	In sample # ()3	
Sample No. Start Depth (ft) End Depth (ft) Method (ft) Spoon Blows/6" (ft) Re-cov'd Reading Sample Description and Remarks 01 0.0 0.5 HA Roller-bit Full 0.0 Asphalt Layer 02 0.5 2.0 HA Hand-Auger Full 0.0 Fill Grayish-brown C-F Sand & Gravel,tr.Silt,tr Cobbles. 03 2.0 4.0 HA Hand-Auger Full 0.0 Brown C-F Sand,tr.Silt 04 4.0 6.0 HA Hand-Auger Full 0.0 Same 05A 6.0 7.0 HA Hand-Auger Full 0.0 Same 05B 7.0 8.0 HA Hand-Auger Full 0.0 Wood Bottom of Boring Note:All samples were screened with PID-Meter &	Driller		C.Cohen									
No. (ft) (ft) Method Spoon Blows/6" cov'd Reading Sample Description and Remarks 01 0.0 0.5 HA Roller-bit Full 0.0 Asphalt Layer 02 0.5 2.0 HA Hand-Auger Full 0.0 Fill Grayish-brown C-F Sand & Gravel, tr. Silt, tr Cobbles. 03 2.0 4.0 HA Hand-Auger Full 0.0 Brown C-F Sand, tr. Silt 04 4.0 6.0 HA Hand-Auger Full 0.0 Same 05A 6.0 7.0 HA Hand-Auger Full 0.0 Same 05B 7.0 8.0 HA Hand-Auger Full 0.0 Wood 8.0 Bottom of Boring Note:All samples were screened with PID-Meter &	site_code											
0.5				Method	Spoon Blows/6"		i .		Sample Desc	ription and Re	marks	
02 0.5 2.0 HA Hand-Auger Full 0.0 Fill Grayish-brown C-F Sand & Gravel,tr.Silt,tr Cobbles. 03 2.0 4.0 HA Hand-Auger Full 0.0 Brown C-F Sand,tr.Silt 04 4.0 6.0 HA Hand-Auger Full 0.0 Same 05A 6.0 7.0 HA Hand-Auger Full 0.0 Same 05B 7.0 8.0 HA Hand-Auger Full 0.0 Wood 8.0 8.0 HA Hand-Auger Full 0.0 Wood Bottom of Boring Note:All samples were screened with PID-Meter &	01	0.0	0.5	НА	Roller-bit	Full	0.0	Asphalt Layer				
03 2.0 4.0 HA Hand-Auger Full 0.0 Brown C-F Sand, tr. Silt 04 4.0 6.0 HA Hand-Auger Full 0.0 Same 05A 6.0 7.0 HA Hand-Auger Full 0.0 Same 7.0 Change in Strata 05B 7.0 8.0 HA Hand-Auger Full 0.0 Wood 8.0 Bottom of Boring Note:All samples were screened with PID-Meter &		0.5									Cha	nge in Strata
04 4.0 6.0 HA Hand-Auger Full 0.0 Same 05A 6.0 7.0 HA Hand-Auger Full 0.0 Same 7.0 Change in Strata 05B 7.0 8.0 HA Hand-Auger Full 0.0 Wood 8.0 Bottom of Boring Note:All samples were screened with PID-Meter &	02	0.5	2.0	HA	Hand-Auger	Full	0.0	Fill Grayish-br	own C-F Sand	d & Gravel,tr.S	Silt,tr Cob	bles.
05A 6.0 7.0 HA Hand-Auger Full 0.0 Same 7.0 .	03	2.0	4.0	НА	Hand-Auger	Full	0.0	Brown C-F Sa	nd,tr.Silt		·	
7.0	04	4.0	6.0	HA	Hand-Auger	Full	0.0	Same				
05B 7.0 8.0 HA Hand-Auger Full 0.0 Wood 8.0 Bottom of Boring Note:All samples were screened with PID-Meter &	05A	6.0	7.0	НА	Hand-Auger	Full	0.0	Same				
8.0 Bottom of Boring Note:All samples were screened with PID-Meter &		7.0									Chai	nge in Strata
Note:All samples were screened with PID-Meter &	05B	7.0	8.0	НА	Hand-Auger	Full	0.0	Wood				
		8.0										om of Boring
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Project	Port-Ivory	Voluntary (Clean up		Contra	ictor	Craig	Boring No.	BH-SH2A	Date:	11/20/07
Location	As Laid ou	it by H.M.M	c.Donald.				Contract No.	426-06-008	Surface Elev.		
Spoon	3" O.D.	2.875" I.D.	Hammer/ Fall (in.)	140 lbs./30"			G	round Water			
Hammer [*]	Туре	Auto	Hole Type	1	,	Date	Time	Depth (ft)		Remarks	
Inspector		J.Zarks								Kemarks	
Driller		C.Cohen									
site_code						······································					
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Re	marks	
01	0.0	0.5	RC	Roller-bit	Full	0.0		Asp	halt Layer		
	0.5									Chai	nge in Strata
02	5.0	1.5	НА	HandAuger	Full	0.0	Fill Grayish-brown C-F Sand,tr Silt,tr.Cobbles.				
	1.5						Obstruction,Concrete Slab .Bottom of bor				of boring.
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Project	Port-Ivory	Voluntary (Clean up		Contra	ctor	Craig	Boring No.	SH-3	Date:	11/20/07
Location	As Laid ou	it by H.M.Mo					Contract No.	426-06-008	Surface Elev.		
Spoon	3" O.D.	2.875" I.D.	Hammer/ Fall (in.)	140 lbs./30"			G	round Water	Level	OBTOOLS I	
Hammer 1	Гуре	Auto	Hole Type	1		Date	Time	Depth (ft)		Remarks	
Inspector		J.Zarks			11	/20/07	9:15AM	6.0	In sample # ()5	
Driller		C.Cohen									
site_code											
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Re	marks	
01	0.0	0.4	RC	Roller-bit	Full	0.0	Asphalt Layer			-	
	0.4									Char	nge in Strata
02	0.4	2.0	НА	Hand-Auger	Full	0.0	Fill Grayish-bla	ack C-F Sand	& Gravel,son	ne Cobble	es.
03	2.0	4.0	НА	Hand-Auger	Full	0.0	Fill Grayish-br	own C-F Sand	d & Gravel,tr.C	Clayey Sil	t.
	4.0									Char	nge in Strata
04	4.0	6.0	НА	Hand-Auger	Full	0.0	Reddish-brow	n Clayey Silt,li	ittle F Sand.		
	6.0									Char	nge in Strata
05	6.0	80	HA	Hand-Auger	Full	0.0	Brown Silty Cla	ay,tr F Sand.			
06	8.0	9.0	HA	Hand-Auger	Full	0.0	Same				
07A	9.0	9.5	SS	12	6"	0.0	Same				
	9.5									Char	ge in Strata
07B	9.5	11.0	SS	W-O-H	18"	0.0	Brown Peat.				
	11.0									Botton	n of Boring.
							Note:All sampl discarded,sam	es were scree ple # 04(5.5'-	ened with PID- -6.0')was save	Meter & d.	
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Port-Ivory	Voluntary C	lean up		Contra	ctor	Craig	Boring No.	SH-4	Date	11/8/07
As Laid out	t by H.M.Mc	Donald.				Contract No.	426-06-008	Surface Elev.		
		Fall (in.)				G	round Water	Level		
уре		Hole Type			Date	Time	Depth (ft)		Remarks	
	J.Zarks			11	/8/07	1:00PM	4.9	in sample # ()3	
	R.Dollar				·····					
	r	I	1							
Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Re	marks	
0.0	2.0	НА	Hand Auger	Full	0.0	Top Soil				
2.0						Change ir				
2.0	4.0	НА	Hand Auger	Full	0.0	Grayish-black	C-F Granular	Size Cinders	& Slag.	
4.0	5.5	НА	Hand Auger	Full	0.0	Same				
5.5								Chai	nge in Strata	
5.5	НА	Hand Auger	Full	0.0	Brown Peat					
6.0	8.0	НА	Hand Auger	Full	0.0	Same				
8.0									Bott	om of boring
										
										<u>,</u>
								W. E. Walletter		
	Start Depth (ft) 0.0 2.0 4.0 5.5 5.5 6.0	Start Depth (ft) End Depth (ft) (ft)	Start Depth (ft)	As Laid out by H.M.Mc.Donald. Hammer/ Fall (in.)	As Laid out by H.M.Mc.Donald. Hammer/Fall (in.) Hole Type Interpretation	Port-Ivory Voluntary Clean up Contractor	Port-Ivory Voluntary Clean up	Port-Ivory Voluntary Clean up Contractor Craig Boring No.	Note	Contractor Craig



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Project	Port-Ivory	Voluntary C	lean up		Contra	ctor	Craig	Boring No.	SH-5	Date:	11/21/07
Location	As laid out	t by H.M.Mc.	Donald,3.5	'South of BH -SH5	Α		Contract No.	426-06-008	Surface Elev.		
Spoon	3" O.D.	2.875" I.D.	Hammer/ Fall (in.)	140 lbs./30"			G	round Water	Level		
Hammer *	Туре	Auto	Hole Type	1	1	Date	Time	Depth (ft)	Remarks		
Inspector		J.Zarks			11,	/21/07	9:00AM	4.0	In sample # 02		
Driller	······································	J.Finch									
site_code											
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Re	marks	
01	0.0	2.0	НА	Hand Auger	Full	0.0	Fill Brown C -	F Sand & Gra	vel,some Cob	bles,bou	lders,tr Silt.
02	2.0	4.0	НА	Hand Auger	Full	0.0	Same				
03	4.0	6.0	НА	Hand Auger	Full	0.0	Same				,
0 <u>4A</u>	6.0	7.5	НА	Hand Auger	Full	0.0	Same				
	7.5									Cha	nge in Strata
04B	7.5	8.0	НА	Hand Auger	Full	0.0	Brown Peat.				
	8.0			, , , , , , , , , , , , , , , , , , , ,							m of Boring
							Note:All samp discarded,san				
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Materials Engineering **Boring Report** Project Port-Ivory Voluntary Clean up Contractor Craig Boring No. BH-SH5A Date: 11/8/07 Location As Laid out by H.M.Mc.Donald. Contract No. 426-06-008 Surface Elev. Hammer/ Spoon 3" O.D. 2.875" I.D. Fall (in.) 140 lbs./30" **Ground Water Level** Hammer Type Auto Hole Type Date Time Depth (ft) Remarks Inspector J.Zarks 11/8/07 2:30PM 3.5 In sample # 02 Driller R.Dollar. site_code Sample Start Depth End Depth Re-PID Method Spoon Blows/6" No. Sample Description and Remarks (ft) (ft) Reading cov,q 01 0.0 2.0 HΑ Hand Auger Full 0.0 Top soil 2.0 Change in Strata. 02 2.0 4.0 HA Hand Auger Full 0.0 Dark Gray C - F granular size Cinders 03 4.0 6.0 HA Hand Auger Full 0.0 Same 6.0 Bottom of Boring Note:Obstruction,on top of pipe-line.All samples were screened with PID-Meter & discarded,# 02(3.0'-3.5')was saved.



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Project	Port-Ivory	Voluntary C	Clean up		Contra	ctor	Craig	Boring No.	SH-6	Date	11/8/07
Location	As Laid ou	rt by H.M.Mc					Contract No.	426-06-008	Surface Elev		
Spoon			Hammer/ Fall (in.)				G	Fround Water	Level		
Hammer	Туре		Hole Type			Date	Time	Depth (ft)	Remarks		
Inspector		J.Zarks			11	/8/07	AM 5.5 In sample # 04				
Driller		C. Cohen									
site_code	,										
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and R	emarks	
01	0.0	1.0	HA	Hand Auger	Full	0.0	Top Soil				
	1.0									Cha	nge in Strata
02	1.0	2.0	НА	Hand Auger	Full	0.0	Fill Grayish-bi	rown C-F Sand	d & Gravel,Lit	tle Silt.	
	2.0									Cha	nge in Strata
J3	2.0	4.0	HA	Hand Auger	Full	0.0	Grayish-black	C -F granula	rsize Cinder	s & Slag.	
04	4.0	5.5	НА	Hand Auger	Full	0.0	Same				
	5.5									Cha	nge in Strata
05	5.5	6.0	НА	Hand Auger	Full	0.0	Brown Peat				
	6.0									Cha	nge in Strata
06	6.0	8.0	НА	Hand Auger	Full	0.0	Black Organic	Silt with brow	n Peat.		
	8.0									Botto	m of Boring.
							Note: All samp carded,sample	oles were scre e # 04(5.0'-5.5'	ened with PII)was saved.	O-Meter 8	dis-
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Project	Port-Ivory	Voluntary-c	lean up		Contra	ctor	Craig	Boring No.	AOC-SH 7	Date	11/9/2007
Location	As laid out	by Hatch M	lott Mc.Don Hammer/	ald			Contract No.	426-06-008	Surface Elev.		
Spoon	2" O.D.	1.375" I.D.		140 lbs./30"			G	round Water	Level		
Hammer 1	Гуре	Safety	Hole Type	1		Date	Time	Depth (ft)	Remarks		
Inspector		J.Zarks			11	11/9/07 8:25AM 4.0 In sample # 03					
Driller		C.Cohen.									
site_code											
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading					
01	0.0	2.0	НА	Hand Auger	Full	0.0	Fill Brown C -	F Sand & Gra	vel,some bou	ders,tr.S	Silt.
	2.0									Cha	nge in Strata
02	2.0	4.0	НА	Hand Auger	Full	0.0	Grayish-black	C-F Granular	size Cinders	& Slag.	
03	4.0	6.0	НА	Hand Auger	Full	0.0	Same				
04	4.0	6.0	НА	Hand Auger	Full	0.0	Same				
	6.0									Cha	nge in Strata
05	6.0	6.5	НА	Hand Auger	Full	0.0	Brown Peat				
	6.5		WW.							Botto	m Of Boring.
							Note:All samp samples # 02				
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	Boring Report											
Project	Port-Ivory	Voluntary (Clean up		Contra	ctor	Craig	Boring No.	SH-8	Date:	11/20/07	
Location	As Laid οι	ıt by H.M.Mo	c.Donald.		·	-	Contract No.	426-06-008	Surface Elev.			
Spoon	3" O.D.	2.875" I.D.	Hammer/ Fall (in.)	140 lbs./30"			G	round Water	Level			
Hammer '	Туре	Auto	Hole Type	1		Date Time Depth (ft) Rem			Remarks	emarks		
Inspector		J.Zarks		· · · · · · · · · · · · · · · · · · ·	11	11/15/07 8:15AM 5.0 In sample #			In sample # 0	03		
Driller		R.Dollar										
site_code				· · · · · · · · · · · · · · · · · · ·								
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Re	marks		
01	0.0	2.0	НА	Hand Auger	Full	0.0	Fill Dark Gray	C-F Sand,little	e Gravel,tr,Silt			
02	2.0	4.0	НА	Hand Auger	Full	0.0	Same					
03	4.0	6.0	НА	Hand Auger	Full	0.0	Brown C-F Sa	nd ,some Gra	vel,tr. Silt.			
04	6.0	7.0	НА	Hand Auger	Full	0.0	Same					
	7.0									Char	nge in Strata	
05	7.0	8.0	НА	Hand Auger	Full	0.0	Brown Peat					
	8.0									Botto	om of Boring	
							Note:All samp ,#03(4.5'-5.0')	les were scree was saved.	ened with PID-	-Meter &	discarded	
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Boring Report												
Project	Port-Ivory	Voluntary C	lean up		Contra	ctor	Craig	Boring No.	SH-9	Date	11/12/07	
Location	As Laid ou	t by H.M.Mc		······································			Contract No.	426-06-008	Surface Elev.			
Spoon			Hammer/ Fall (in.)				G	round Water	Level			
Hammer `	Гуре		Hole Type			Date	Time	Depth (ft)		Remarks		
Inspector		J.Zarks			11,	/12/07	1:45PM 5.5 In sample # 03					
Driller		C.Cohen.		- 0								
site_code	·											
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading	Sample Description and Remarks					
01	0.0	2.0	HA	Hand Auger	Full	0.0	Fill Gray C - F	Sand & Grav	el,some Brick	& Wood	•	
02	2.0	4.0	НА	Hand Auger	Full	0.0	Same					
03	4.0	6.0	НА	Hand Auger	Full	0.0	Same					
04	6.0	7.0	HA	Hand Auger	Full	0.0	Same					
	7.0									Cha	nge in Strata	
05	7.0	8.0	HA	Hand Auger	Full	0.0	Brown Peat w	ith Fibers.				
	8.0									Bott	tom of boring	
							Note:All samp discarded,san					

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Project	Port-Ivory	Voluntary (Clean up		Contra	ctor	Craig	Boring No.	BH-SH-9A	Date	1112/07
Location	As Laid ou	t by H.M.Mo	.Donald.				Contract No.	426-06-008	Surface Elev.		
Spoon			Hammer/ Fall (in.)				G	round Water	Level		
Hammer 1	уре		Hole Type			Date	Time	Depth (ft)		Remarks	
Inspector		J.Zarks									
Driller		R.Dollar									· · · · · · · · · · · · · · · · · · ·
site_code											
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading	Sample Description and Remarks				
01	0.0	2.0	HA	Hand Auger	Full	0.0	Fill Black C-F	Sand & Grav	vel,Little Silt.		
02	2.0	4.0	НА	Hand Auger	Full	0.0	Fill Grayish-br	own C-F Sand	d & Gravel ,tr.	Silt	
03	4.0	5.0	НА	Hand Auger	Full	0.0	Same				
	5.0						Obstruction,Co	oncrete Slab.	Bot	tom of B	oring
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Project	Port-Ivory	Voluntary (Clean up		Contra	ctor	Craig	Boring No.	SH-10	Date	11/14/07	
Location	As Laid ou	t by H.M.Mc					Contract No.	426-06-008	Surface Elev.			
Ѕрооп			Hammer/ Fall (in.)				G	round Water	Level			
Hammer 1	Гуре		Hole Type		1	Date	Time	Depth (ft)		Remarks		
Inspector		J.Zarks			11.	11/14/07 2:30PM 6.5 In samples # 04						
Driller		C. Cohen										
site_code												
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading	Sample Description and Remarks					
01	0.0	2.0	НА	Hand Auger	Full	0.0	Fill Brown C F	Sand & Grav	el,tr. Silt.	· · · · · · · · · · · · · · · · · · ·		
02	2.0	4.0	HA	Hand Auger	Full	0.0	Same					
	4.0					-				Cha	nge in Strata	
03	4.0	6.0	НА	Hand Auger	Full	0.0	Reddish-brow	n Clayey Silt	tr. F. Sand.			
	6.0									Cha	nge in Strata	
04	6.0	8.0	НА	Hand Auger	Full	0.0	Brown M-F Sa	nd & Silt				
05A	8.0	8.5	НА	Hand Auger	Full	0.0	Same					
	8.5									Cha	nge in Strata	
05B	8.5	9.0	НА	Hand Auger	Full	0.0	Brown Peat.					
	9.0									Botto	om of Boring.	
							Note: All samp ,sample # 04(oles were scre 6.0'-6.5')was s	ened with PID saved.	-Meter 8	k discarded	
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Project	Port-Ivory	Voluntary (Clean up		Contra	ictor	Craig	Boring No.	BH-SH 10 A Date 11/12/07		
Location	As Laid οι	ıt by H.M.M	c.Donald.				Contract No.	426-06-008	Surface Elev.		
Spoon			Hammer/ Fall (in.)				G	round Water			
Hammer 1	Гуре		Hole Type			Date	Time	Depth (ft)	Remarks		
Inspector		J.Zarks							romano		
Driller		R.Dollar									
site_code									. 11111		
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading	Sample Description and Remarks				
01	0.0	1.0	HA	Hand Auger	Full	0.0	Fill Br	own C-F Sand	d & Gravev,Crushed Rock.		
	1.0							Obstructio	n ,Conrete Slab.Bottom of Boring		
								NAME OF THE OWNER OF THE OWNER OF THE OWNER OF THE OWNER OF THE OWNER OF THE OWNER OF THE OWNER OF THE OWNER O			
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Project	Port-Ivory	Voluntary (Clean up		Contra	ictor	Craig	Boring No.	SH-11	Date	11/13/07		
Location	As Laid ou	t by H.M.Mo	c.Donald.		T		Contract No.	426-06-008	Surface Elev.				
Spoon	···· · · · · · · · · · · · · · · · · ·		Fall (in.)				G	round Water	Level				
Hammer '	Туре		Hole Type			Date	Time	Depth (ft)		Remarks	Remarks		
Inspector		J.Zarks			11	11/13/07 1:30PM 4.5 In sample # 03							
Driller		C. Cohen			ļ								
site_code		4											
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading	Sample Description and Remarks						
01	0.0	2.0	НА	Hand Auger	Full	0.0	Fill Crushed	Rock (DGA	BC)				
	2.0								, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Cha	nge in Strata		
02	2.0	4.0	НА	Hand Auger	Full	0.0	Fill Brown M-	F Sand,tr. Silt	t				
03	4.0	6.0	НА	Hand Auger	Full	0.0	Fill Grayish-br	rown M - F Sar	nd,tr. Silt.				
) 04	6.0	8.0	НА	Hand Auger	Full	0.0	Same						
05	8.0	9.0	НА	Hand Auger	Full	0.0	Same						
	9.0									Botte	om Of Boring		
							Note:All samp discarded,san	les were scree nple # 03(4.0'-					
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Craig Contract No. G		SH12 Surface Elev.	Date	11/12/07				
G		Surface Elev.						
	round Water	Contract No. 426-06-008 Surface Elev.						
Time	Ground Water Level							
1 3	Depth (ft)		Remarks					
10:00AM	5.0	in sample #	03					
	Sample Desc	cription and Re	emarks					
Top Soil				THE RESERVE THE PROPERTY OF TH				
	Management 11 11 11 11 11 11 11 11 11 11 11 11 11		Cha	nge in Strata				
Fill Brown C-F	Sand,tr,Claye	ey Silt						
Same								
			Cha	nge in Strata				
Black Organic	Silt.							
			Cha	nge in Strata				
Brown Peat		W						
				om of boring				
76.								
	Top Soil Fill Brown C-F Same Black Organic Brown Peat	Sample Description Top Soil Fill Brown C-F Sand,tr,Clay Same Black Organic Silt. Brown Peat	Sample Description and Re Top Soil Fill Brown C-F Sand,tr,Clayey Silt Same Black Organic Silt. Brown Peat Note:All samples were screened with PID	Sample Description and Remarks Top Soil Cha Fill Brown C-F Sand,tr,Clayey Silt Same Chai Black Organic Silt. Chai				



	Boring Report												
Project		Port Ivory-	Voluntary (Cleanup	Contra	ctor	Craig	Boring No.	AOC-A2SE1 Date 9/13/07				
Location		As Laid	out by Hat	tch Mott Mac Dona	ald		Contract No.	426-06-008	Surface Elev.				
Spoon	N/A	1.375" I.D.	Fall (in.)	140 lbs./30"		·····	G	round Water	Level				
Hammer 1	Гуре	Safety	Hole Type	1		Date	Time	Depth (ft)	Remarks				
Inspector	***************************************	J.Zarks	·		9/	13/07	AM	5.0'	In Sample # 03.				
Driller		A. Tricanic	0										
site_code													
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Remarks				
	0.0	0.2	HA.	Hand Auger	Full	0.0							
	0.2						Strata.		Change in				
01	0.2	2.0	НА	Hand Auger	Full	1.1	fill brown C-F Sand & Gravel,tr.Silt.						
02	2.0	4.0	HA	Hand Auger	Full	13.0							
3	4.0	6.0	HA	Hand Auger	Full	1.8	Same.						
	6.0								Change in Strata.				
04	6.0	6.5	НА	Hand Auger	Full	2.1	Brown Peat.						
	6.5								Bottom of Boring.				
							Note:Samples ,all_other.sam	# 02 (3.5'- 4. ples were scre	0') & # 04 (6.0-6.5') were saved ened with PID and then				
							Sample# 02 or	hold by H.M	. Mc Donald Engineering.				



·		***			Borin	g Repo	π			
Project		Port Ivory-	Voluntary C	leanup	Contra	ctor	Craig	Boring No.	AOC-A2SE 3 Date 9/12/07	
Location		As Laid	out by Hat	ch Mott Mac Dona	ıld		Contract No.	426-06-008	Surface Elev.	
Spoon	N/A	1.375" I.D.	Fall (in.)	140 lbs./30"			G	round Water	Level	
Hammer 1	Туре	Safety	Hole Type	1	1	Date	Time	Depth (ft)	Remarks	
Inspector		J.Zarks			9/	12/07	АМ	4.0'	Sample # 4 moist.	
Driller		A. Tricanic	<u> </u>	The second secon						
site_code										
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Remarks	
	0.0	0.2	HA.	Hand Auger	Full	0.0	· · · · · · · · · · · · · · · · · · ·			
	0.2						Strata.	Change in		
01	0.2	1.0	НА	Hand Auger	Full	0.0	fill brown C-F	Sand & Grav	el,tr.Silt.	
02	1.0	2.0	НА	Hand Auger	Full	0.0	Same.			
	2.0	3.0	НА	Hand Auger	Full	0.0	Same.			
04	3.0	HA	Hand Auger	Full	0.0	Same.				
	4.0							<u> </u>	Bottom of Boring.	
				TO THE STATE OF TH				ples wer scree nple # 04 save	ened with PID-Meter & ed.	
				,						
									:	
								Alexander de la constanta de l		
<u></u>				TOTAL PROPERTY AND A STATE OF THE STATE OF T						



			****			g Kepo		·				
Project		Port Ivory-	Voluntary C	Cleanup	Contra	ctor	Craig	Boring No.	AOC-A2SE4	Date	9/13/07	
Location		As Laic	d out by Har	tch Mott Mac Dona	ald		Contract No.		Surface Elev.			
Spoon	N/A	1.375" I.D.	Hammer/ Fall (in.)	140 lbs./30"			G	round Water		***		
Hammer ⁻	Туре	Safety	Hole Type	1		Date	Time	Depth (ft)		Remarks		
Inspector		J.Zarks										
Driller		A. Tricanic	o									
site_code	•											
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading	Sample Description and Remarks					
	0.0	0.2	HA.	Hand Auger	Full	0.0	Crushed Rock.					
	0.2						Strata. Char				ge in	
01	0.2	2.0	НА	Hand Auger	Full	0.0	fill brown C-F	Sand & Grave	el,tr.Silt.			
02	2.0	4.0	НА	Hand Auger	Full	0.0	Same.					
	4.0						Bottom of Boring					
							Note:Sample #	£02 (30'-35'	") was saved a	ll other	complee	
							were screened	with PID and	then discarde	d.	samples	
	<u>-</u>							····				

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					Borin	g Repo	n			
Project		Port Ivory-	Voluntary C	leanup	Contra	ctor	Craig	Boring No.	AOC-A2SE 5 Date	9/12/07
Location		As Laid	out by Hat	ch Mott Mac Dona	aid		Contract No.	426-06-008	Surface Elev.	
Spoon	N/A	1.375" l.D.	Hammer/ Fall (in.)	140 lbs./30"			G	round Water	Level	
Hammer ⁻	Туре	Safety	Hole Type	1		Date	Time	Depth (ft)	Rema	arks
Inspector		J.Zarks	···							
Driller		A. Tricanic	0							
site_code			w							
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Remark	s
	0.0	0.2	HA.	Hand Auger	Full	0.0	Crushed Rock	ζ.		
	0.2						Strata.		C	Change in
01	0.2	1.0	НА	Hand Auger	Full	0.0	fill brown C-F	Sand & Grave	el,tr.Silt.	
02	1.0	2.0	НА	Hand Auger	Full	0.0	Same.			
	2.0								E	Bottom of boring.
							Note: Termina move+ 2' NW		to obstruction.Ele	ctrical line,we
									UV-0-1-1-1-11111-1-1-1	·
									.5')& # 6 (5.0' -5.5 ed_with PID and the	
								<u> , , , , , , , , , , , , , , , , , , ,</u>		
							Samples # 04	\$ 8 06 on hold	d as per H.M.MacD	onald
										-
	·					·······································				· · · · · · · · · · · · · · · · · · ·
								······		
L. , <u>/</u>										



F	Boring Report											
Project		Port Ivory-	Voluntary C	Cleanup	Contra	ctor	Craig	Boring No.	AOC-A2SE 5A Date 9/12/07			
Location	-	As Laic	out by Hat	tch Mott Mac Dona	ald		Contract No.	426-06-008	Surface Elev.			
Spoon	N/A	1.375" I.D.	Hammer/ Fall (in.)	140 lbs./30"			G	round Water	Level			
Hammer '	Туре	Safety	Hole Type	1	1	Date	Time	Depth (ft)	Remarks			
Inspector		J.Zarks			9/	12/07	PM	5	In sample # 04			
Driller		A. Tricanic	0						- A Marine			
site_code	!											
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading	g Sample Description and Remarks					
01	0.0	2.0	HA.	Hand Auger	Full	0.0	fill brown C-F Sand & Gravel,tr.Silt.					
02	0.2	4.0	НА	Hand Auger	Full	0.0	Fill grayish-brown C-F Sand & Gravel ,little Silt.					
03	4.0	5.0	НА	Hand Auger	Full	102.0	Same.					
04	5.0	6.0	НА	Hand Auger	Full	1.3	1.3 Same.					
<u></u>	6.0								Bottom of boring			
									reened with PID-Meter & 3'-3.5') (5.0'-5.5')were saved			
				WALLES TO THE RESERVE OF THE RESERVE			saved and set	on hold by Ha	itch Mott Mac Donald.			
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Project		Port Ivory-\	Voluntary C	leanup	Contra	ctor	Craig	Boring No.	AOC-2ASE6 Date 9/13/07		
Location		As Laid	out by Hat	ch Mott Mac Dona	ald		Contract No.	426-06-008	Surface Elev.		
Spoon	N/A	1.375" I.D.	Fall (in.)	140 lbs./30"			G	round Water	Level		
Hammer 1	Туре	Safety	Hole Type	1		Date	Time	Depth (ft)	Remarks		
Inspector		J.Zarks		· · · · · · · · · · · · · · · · · · ·	9/	13/07	AM	5.0'	In sample # 3		
Driller		A. Tricanic)								
site_code											
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Remarks		
	0.0	0.2	HA.	Hand Auger	Full	0.0	Crushed Rock.				
	0.2						Strata.		Change in		
01	0.2	2.0.	НА	Hand Auger	Full	0.0	fill brown C-F Sand & Gravel,tr.Silt.				
02	2.0	4.0	HA	Hand Auger	Full	0.0	Same.				
	4.0	6.0	НА	Hand Auger	Full	0.0	Same.	·			
04	6.0	7.0	HA	Hand Auger	Full	0.0	Same.		man		
	7.0								Bottom of Boring.		
									.0') was saved ,all other samples d then discarded.		
				7,000 A 10 A 10 A 10 A 10 A 10 A 10 A 10			Sample # 03 c	on hold by H.N	M. Mc Donald Engineering.		
								, , , , , , , , , , , , , , , , , , , ,	***************************************		
									N-1		
<i>ــــــــــــــــــــــــــــــــــــ</i>											



	Boring Report												
Project	······	Port Ivory-	Voluntary C	leanup	Contra	ctor	Craig	Boring No.	AOC-A2SE7 Date 9/13/07				
Location		As Laid	out by Hat	ch Mott Mac Dona	ald		Contract No.	426-06-008	Surface Elev.				
Spoon	N/A	1.375" I.D.	Fall (in.)	140 lbs./30"			G	round Water	Level				
Hammer 1	Гуре	Safety	Hole Type	1		Date	Time	Depth (ft)	Remarks				
Inspector	SCHOOL SC	J.Zarks		***************************************	9/	13/07	AM	5.0'	In sample # 05				
Driller		A. Tricanic	0										
site_code													
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading	g Sample Description and Remarks						
	0.0	0.2	HA.	Hand Auger	Full	0.0	Crushed Rock						
	0.2						Strata.		Change in				
01	0.2	2.0	НА	Hand Auger	Full	0.0	fill brown C-F	Sand & Grave	el,tr.Sílt.				
02	2.0	3.0	НА	Hand Auger	Full	0.0	Same.						
)3	3.0	4.0	HA	Hand Auger	Full	68.0	Same.						
04	4.0	5.0	НА	Hand Auger	Full	79.0	Same.	· · · · · · · · · · · · · · · · · · ·					
	5.0								Change in Strata.				
05	5.0	5.5	HA	Hand Auger	Full	38.0							
	5.5					,			Change in Strata.				
06	5.5	6.0	НА	Hand Auger	Full	24.0	Brown M-F Sa	nd tr.Silt,tr.Gra	avel.				
07	6.0	6.5	НА	Hand Auger	Full	4.5	Brown M-F Sa	nd tr.Silt,tr.Gra	avel.				
	6.5						NI-4-AH		Bottom Of Boring				
							discarded,sampl	es screened ples # 04(4.0'	with PID-Meter & -4.5') & #07 (6.0' -6.5) saved.				
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Project		Port Ivory-	Voluntary C	Cleanup	Contra	ctor	Craig	Boring No.	AOC-A2SE8 Date	9/13/07	
Location		As Laic	out by Hat	ich Mott Mac Dona	ald		Contract No.	426-06-008	Surface Elev.		
Spoon	N/A	1.375" I.D.	Fall (in.)	140 lbs./30"			G	round Water	Level		
Hammer	Туре	Safety	Hole Type	1		Date	Time	Depth (ft)	Remarks		
Inspector		J.Zarks		7.11.11.11	9/	13/07	AM	5.0'	in sample # 05		
Driller		A. Tricanic	0			-					
site_code											
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading	Sample Description and Remarks				
	0.0	0.2	HA.	Hand Auger	Full	0.0	Crushed Rock	(.			
	0.2						Chang Strata.				
01	0.2	2.0	НА	Hand Auger	Full	0.0	fill brown C-F	Sand & Grave	el,tr.Silt.		
02	2.0	3.0	НА	Hand Auger	Full	17.5					
3	3.0	4.0	НA	Hand Auger	Full	145.0	Same.				
04	4.0	5.0	HA	Hand Auger	Full	79.0	Same.				
-	5.0								Chan	ge in Strata.	
05	5.0	5.5	HA HA	Hand Auger	Full	38.0					
	5.5								Chan	ge in Strata.	
06	5.5	6.0	НА	Hand Auger	Fuil	24.0	Brown M-F Sa	nd tr.Silt,tr.Gra	vel.		
07	6.0	6.5	НА	Hand Auger	Full	4.5	Brown M-F Sa	nd tr.Silt,tr.Gra	vel.		
	6.5								Botto	m Of Boring	
							Note:All sampl discarded,sam	es screened \ ples # 04(4.0'	vith PID-Meter & -4.5') & #07 (6.0' -6.5) saved.	
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r	Boring Report												
Project		Port Ivory-	Voluntary C	leanup	Contra	ctor	Craig	Boring No.	AOC-2ASE9 Dat	te 913/07			
Location		As Laic	out by Hat	ch Mott Mac Dona	ald		Contract No.		Surface Elev.				
Spoon	N/A	1.375" I.D.	Hammer/ Fall (in.)	140 lbs./30"			G	round Water	Level				
Hammer *	Гуре	Safety	Hole Type	1		Date	Time	Depth (ft)	Rem	arks			
Inspector		J.Zarks			9/	13/07	PM	5	In Sample # 5.				
Driller		A. Tricanic	0										
site_code													
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading	Sample Description and Remarks						
01	0.0	2.0	HA.	Hand Auger	Full	0.0	Fill Gray C-F Sand, little Silty Clay, tr. Gravel						
02	2.0	3.0	HA.	Hand Auger	Full	18.6	Same.						
03	3.0	4.0	НА	Hand Auger	Full	88.7	Same.						
	4.0								C	Change in Strata.			
<u>j4</u>	4.0	5.0	НА	Hand Auger	Full	24.2	2 Brown Peat.						
···	5.0									hange in Strata.			
05	5.0	6.0	HA	Hand Auger	Full	13.8	Fill Gray C-F	Sand,little Sili	ty Clay,tr.Gravel				
06	6.0	6.5	HA	Hand Auger	Full	11.2	Same.						
07	6.5	7.0	НА	Hand Auger	Full	0.0							
	7.0								В	ottom Of Boring.			
					İ								
							Note:All Samp discarded.Sam	les were scree ples # 03(3.5-	ned with PID-Mete 4.0') & #07 (6.5'-7	er & .0')saved.			
							Sample #I on h						
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Project		Port Ivory-	Voluntary C	leanup	Contra	ctor	Craig	Boring No.	AOC-2ASE10 Date 9/14/07	
Location		As Laic	out by Hat	ch Mott Mac Dona	ald		Contract No.	426-06-008	Surface Elev.	
Spoon	2" O.D.	1.375" I.D.	Fall (in.)	140 lbs./30"			G	round Water	Level	
Hammer [*]	Гуре	Safety	Hole Type	1	[Date	Time	Depth (ft)	Remarks	
Inspector		J.Zarks								
Driller		A. Tricanic	0							
site_code	!									
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Remarks	
01	0.0	1.0	HA.	Hand Auger	and Auger Full 0.0 Fill Brown C-F Sand & Gravel,Boulder					
02	1.0	2.0	HA.	Hand Auger	Full	0.0	same.			
03	2.0	2.4	HA	Hand Auger	Full	0.0	same.			
	2.4								Bottom Of Boring	
							Note:Obstruc	tion.Termina	te boring.	
············						·				
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	WHI									
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Project		Port Ivory-	Voluntary C	leanup	Contra	ctor	Craig	Boring No.	A2SE10A	Date 9/17	7/07
Location	2.5'N	North of AO	C-A2SE10,	as laidout by H.M.	Mc Don	ıald.	Contract No.	426-06-008	Surface Elev.		
Spoon	2" O.D.	1.375" I.D.	Hammer/ Fall (in.)	140 lbs./30"			G	round Water	THE STREET	V-2007L-2-12	
Hammer 1	Гуре	Safety	Hole Type	1		Date	Time	Depth (ft)		Remarks	
Inspector		J.Zarks				17/07	10:30AM	4.0'	In sample #		
Driller		A. Tricanic	0						m danale w	<i>y</i>	
site_code		· · · · · · · · · · · · · · · · · · ·									···
	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Re	narks	
01	0.0	1.0	HA.	Hand Auger	Full	0.0	Fill Brown C-F Sand & Gravel, Boulders, tr. Silty Clay.				
02	1.0	2.0	HA.	Hand Auger	Full	4.5	Fill Greyish-bla Silt.,Coal,Cind	ack C- F San ers & Slag	d, little Grave	.tr.	
03	2.0	4.0	НА	Hand Auger	Full	133.8	Same, w/wood		odor & tr.Produ	ict).	
04	4.0	5.0	НА	Hand Auger	Full	74.3	Same.				
5	5.0	6.0	НА	Hand Auger	Full	0.0	0.0 Fill Brown C-F Sand.				
	6.0									Bottom of Bo	oring.
'							Note: All sam discarded,sar				
								inpico ii o(o.o	-4.0) Q # 3 (3	.5 -0.0)Were	
										All and the state of the state	
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PROJECT: Port Ivory-Volu	ntary Cleanup		CONTRAC	T NO.	426-06-008
LOCATION: 2.5'North of AC	OC-A2SE10,as laidout by H.M.Mc Dor	nald.	CONTRAC	TOR	Craig
WELL NO. A2SE	MELL TYPE			DATE:	
DRILLER:		INSPECTOR: J.2	Zarks		
Well Development Report	(NOTE: WATER LEVEL READINGS FR	ROM TOP OF PVC)			
DATE:	WATER LEVEL BEFORE:		WATER LE	VEL AFTER:	
TAKEN	MINUTES AFTER DEVELOPME	ENT			
	9" dia. Manh	ole cover	· · · · · · · · · · · · · · · · · · ·		
	4" dia. PVC pipe w/loc	cking cap			
				0.0	Top of surface
	L1 🏠				& cement grout
L1 =					
L2 =	L2				Top of bentonite seal
	- - -				, op ot bottomed deal
L3 =	· · · · · · · · · · · · · · · · · · ·				Top of well gravel filter
					Top of well graver filter
				openings	
	L3		3	.020"	
				#	
Remarks:					
4,444			=		
	<u> </u>		╛ -		Bottom of well
	The second secon	Сар			Bottom of boring
		6" Boring diam			
		o buning diam	etet		



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Project	***************************************	Port Ivory-	Voluntary C	Cleanup	Contra	ctor	Craig	Boring No.	AOC-2ASE11 Date	9/17/07
Location		As Laid	out by Hat	ch Mott Mac Dona	ald		Contract No.	426-06-008	Surface Elev.	
Spoon	2" O.D.	1.375" I.D.	Fall (in.)	140 lbs./30"			G	round Water	Level	
Hammer	Гуре	Safety	Hole Type	1		Date	Time	Depth (ft)	Remarks	
Inspector		J.Zarks								
Driller		A. Tricanic	0							
site_code			·			yr				
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Remarks	
01	0.0	1.0	HA.	Hand Auger	Full	1.7	Fill Brown C-F	Sand & Grav	el,Boulders,tr.Silty Cla	у
02	1.0	2.0	HA.	Hand Auger	Full	4.8	Same			
03	2.0	3.0	HA	Hand Auger	Full	72.4	Fill Grayish-bl Gravel,tr.Silt,(Little Slag & wood.(Petro odd	or)
04	3.0	3.9	НА	Hand Auger	Full	76.5	Same			
	3.9								Bottor	n Of Boring.
							Note: Boring t screened w/P	erminated bed id-Meter & disc	ause of obstruction.Al	l samples
			wall 11							·····
				, , , , , , , , , , , , , , , , , , , ,						· · · · · · · · · · · · · · · · · · ·
										· · · · · · · · · · · · · · · · · · ·
									ATT-000	***************************************

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PROJECT: Port Ivory-Volu	ntary Cleanup				CONTRAC	CT NO.	426-06-008	
LOCATION: As Laid out by	Hatch Mott Ma	c Donald	·		CONTRAC	CTOR	Craig	
WELL NO. AOC-2	ASE11	WELL TYPE				DATE:		
DRILLER:			IN:	SPECTOR: J.Z	Zarks			
Well Development Report	(NOTE: WATE	R LEVEL READINGS	FROM TOP OF PV	2)				
DATE:	WATER LE	VEL BEFORE:			WATER L	EVEL AFTER:		
TAKEN	MINUTES A	FTER DEVELOP	MENT		5-1-2-1 <u>V</u> -1-1-2-1-2-2-2-2-2-			
		9" dia. Ma	nhole cover					
	4"	dia. PVC pipe w	locking cap					
		***		/ 1		0.0	Top of surface	•
		L1 (<u> </u>	7			& cement grou	ut
L1 =	_	/	`					
L2 =		L2		****			Top of benton	ite seal
							,	
L3 =							Top of well gra	aval filtor
		<u> </u>	/			******	, op o, non gr	
								•
						openings		
		L3				.020"		
						.020		
Remarks:								
		$\underline{\psi}$	·				Bottom of well	
			Cap				Bottom of bori	ng
			Lucana					
			1	6" Boring dian	neter			



						g Kepu	/1 L				
Project		Port Ivory-	Voluntary C	Cleanup	Contra	actor	Craig	Boring No.	A2SE11A	Date	9/17/07
Location	7'1	North of AO	C-A2SE 11,	Laid out by H.M.M	lc.Dona	ld.	Contract No.		Surface Elev.		
Spoon	2" O.D.	1.375" I.D.	Hammer/ Fall (in.)	140 lbs./30"			G	round Water			<u> </u>
Hammer [*]	Гуре	Safety	Hole Type	1		Date	Time	Depth (ft)	· · · · · · · · · · · · · · · · · · ·	Remarks	····
Inspector		J.Zarks		Trans-12						7.07.107.10	·
Driller		A. Tricanic	О								····
site_code											
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Re	marks	
01	0.0	1.0	HA.	Hand Auger	Full	0.0	Fill Brown C-F	Sand & Grav	el,Boulders,tr.	Silty Clay	
02	1.0	1.5	HA.	Hand Auger	Full	4.4	Same				
	1.5'								***************************************	Botton	n Of Boring
							Note: Obstruct	ion,concrete s	slab.No sampl	es saved	
											·····
170.00											·
											· · · · · · · · · · · · · · · · · · ·
								······································		· · · · · · · · · · · · · · · · · · ·	***************************************

PROJECT: Port Ivory-Vo	luntary Cleanup		CONTRACT NO.	426-06-008
LOCATION: 7'North of AC	C-A2SE 11,Laid out by H.M.Mc.Dona	ald.	CONTRACTOR	Craig
WELL NO. A2S	SE11A WELL TYPE		DATE:	
DRILLER:		INSPECTOR: J	Zarks	
Well Development Repor	(NOTE: WATER LEVEL READINGS F	FROM TOP OF PVC)		
DATE:	WATER LEVEL BEFORE:		WATER LEVEL AF	TER:
TAKEN	MINUTES AFTER DEVELOPM	<i>i</i> ent		
	9" dia. Man	nhole cover		
	4" dia. PVC pipe w/lo	ocking cap		
	•		0.0	Tan of mustace
	L1			Top of surface & cement grout
L1 =	$\overline{\uparrow}$			-
		*		
L2 =	,,			
L2 -	L2			Top of bentonite seal
L3 =	_			Top of well gravel filter
	<u></u>			
			openir	ngs
	L3		.020	,
•				
Remarks:				
				Bottom of well
		Cap	·	Bottom of boring
		-		bottom or borning
		← 6" Boring diar	———→ neter	



ļ					ווווטם	ig Repo	III.				
Project		Port Ivory-	Voluntary C	leanup	Contra	actor	Craig	Boring No.	A2SE11B	Date	9/18/07
Location	12'N	orth of AO	C-A2SE11,a	is laidout by H.M.I	Mc Don	ıald.	Contract No.	426-06-008	Surface Elev.		
Spoon	2" O.D.	1.375" I.D.	Hammer/ Fall (in.)	140 lbs./30"			G	round Water			
Hammer 1	Гуре	Safety	Hole Type	1		Date	Time	Depth (ft)		Remarks	<u></u>
Inspector		J.Zarks			9/	/18/07	9:00AM	4.2'	In sample #		
Driller		A. Tricanic	0						m cample #	<i></i>	
site_code											
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Re	marks	
01	0.0	2.0	HA.	Hand Auger	Fult	0.0	Fill Brown C-F	Sand & Grav	el,Boulders,tr.	Silty Cla	у.
02	2.0	3.5	HA.	Hand Auger	Full	10.7	Fill Greyish-bla Silt.,Coal,Cind	ack C-FSan ers & Slag	d, little Gravel	.tr.	
03	3.5	4.0	HA	Hand Auger	Full	15.6	Same, w/wood		odor & tr.Produ	ct).	
04	4.0	4.5	НА	Hand Auger	Full	3.2	Same.				
5	4.5	5.0	HA	Hand Auger	Full	0.8	Fill Brown C-F	Sand.			
06	5.0	5.5	HA	Hand Auger	Full	0.0					
	5.5									Bottor	n of Boring
							Note: All sam discarded,san	ples were scr nples # 3(3.5'	reened with P '-4.0') & # 6 (5	ID-Mete	r & were
			7,1	2			saved.				



PROJECT: Port Ivory-Volunt	ary Cleanup		CONTRAC	T NO.	426-06-008
LOCATION: 12'North of AOC-	A2SE11,as laidout by H.M.Mc Donald		CONTRACT	***************************************	Craig
WELL NO. A2SE1				DATE:	Craig
DRILLER:		INSPECTOR: JZ	arks	DATE:	
Well Development Report (NOTE: WATER LEVEL READINGS FROM	TOP OF PVC)	aiks		
DATE: V	VATER LEVEL BEFORE:		WATER LEV	VEL AFTER:	
TAKEN N	NNUTES AFTER DEVELOPMEN				
	9" dia. Manhole	cover			
	4" dia. PVC pipe w/locki				
L1 =	L1 			0.0	Top of surface & cement grout
L2 =	L2		_		Top of bentonite seal
L3 =			_		Top of well gravel filter
Remarks:	L3			openings .020"	
	Cap	6" Boring diamet	er		Bottom of well Bottom of boring

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Project	• • • • • • • • • • • • • • • • • • • •	Port Ivory-	Voluntary C	leanup	Contra	ctor	Craig	Boring No.	A2SE12	Date	9/18/07
Location		As	laidout by	H.M.Mc Donald.			Contract No.	426-06-008	Surface Elev.		
Spoon	2" O.D.	1.375" I.D.	Hammer/ Fall (in.)	140 lbs./30"	<u></u>		G	round Water	Level		
Hammer 1	Гуре	Safety	Hole Type	. 1		Date	Time	Depth (ft)		Remarks	· · · · · · · · · · · · · · · · · · ·
Inspector		J.Zarks			9/	18/07	12:15PM	3.8'	In sample #	04	
Driller		A. Tricanic	0	water							
site_code	•										
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading	***************************************	Sample Desc	ription and Re	marks	
01	0.0	2.0	HA.	Hand Auger	Full	0.0	Fill Brown C-F				1.
02	2.0	3.3	HA.	Hand Auger	Full	10.2	Fill Greyish-bla Silt.,Coal,Cind	ack C- F San ers & Slag	d, little Grave	l.tr.	
03	3.3	3.8	НА	Hand Auger	Full	23.7	Same, w/wood	l(Petroleum c	odor & tr.Produ	uct).	
04	3.8	4.3	НА	Hand Auger	Full	14.2	Same.				
<i>j</i> 5	4.3	4.8	НА	Hand Auger	Full	0.6	Fill Brown C-F	Sand.			
	4.8									Botto	m of Boring
		•		****			Notes All				
							Note: All sam discarded,sar	pies were sc nples # 3(3.3	reened with F -3.8") & # 5 (4	1.3'-4.8)w	r & ere saved.
							saved.	****			
		:		:			y manual de la constantina della constantina del				
-							West of the second seco				

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<u>/</u>							- Committee - Comm				:

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PROJECT: Port Ivory-Volu	ntary Cleanup		CONTRA	CT NO.	426-06-008
LOCATION: As laidout by h	ł.M.Mc Donald.		CONTRA		Craig
WELL NO. A2S				DATE:	- Cong
DRILLER:		INSPECT	TOR: J.Zarks		
Well Development Report	(NOTE: WATER LEVEL READINGS	FROM TOP OF PVC)	0.31100		V
DATE:	WATER LEVEL BEFORE:		WATER L	EVEL AFTER:	
TAKEN	MINUTES AFTER DEVELOP	MENT			
	9" dia. Ma	nhole cover			
	4" dia. PVC pipe w	/locking cap			
	<u></u>		J	0.0	Top of surface
	L1 (·			& cement grout
L1 =		Total Annual Ann			
L2 =	L2		000000		Top of bentonite seal
L3 =	,				Top of well gravel filter
	<u>↓</u>	′			
en est					
				openings	
	L3			.020"	
Remarks:					
	-				
	<u> </u>	7		WHAT A STATE OF THE STATE OF TH	Bottom of well
		Cap			Bottom of boring
		<			
		6" Bo	ring diameter		



Boring Report Project Port Ivory-Voluntary Cleanup Contractor Craig Boring No. AOCA2SE13 Date 9/14/07 Location As laid out by H.M.Mac Donald. 426-06-008 Surface Elev. Contract No. Hammer/ Spoon 2" O.D. 1.375" I.D. Fall (in.) 140 lbs./30" **Ground Water Level** Hammer Type Safety Hole Type 1 Date Time Depth (ft) Remarks Inspector J.Zarks 9/14/07 8:00AM 5.0' In Sample # 05. Driller A. Tricanico site_code Sample Start Depth End Depth Re-PID Method Spoon Blows/6" Sample Description and Remarks No. (ft) (ft) Reading cov'd 01 0.0 1.0 HA. Hand Auger Full 0.0 Fill Crushed Rock-DGABC. 02 1.0 2.0 HA. Hand Auger Full 55.7 Fill Grayish-Brown C-F Sand & Gravel,tr.Silt. 03 2.0 4.0 HA Hand Auger Full 41.4 Same. 04 4.0 5.0 HΑ Hand Auger Full 28.6 Same. 5.0 5 6.0 HΑ Hand Auger Full 16.8 Same. 06 6.0 6.5 HΑ Hand Auger Full 14.3 Same. 6.5 Bottom of Boring. Note:Obstruction at 6.5",concrete slab,All samples screened w/ PID-Meter & discarded.

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	untary Cleanup			CONTRAC	CT NO.	426-06-008
LOCATION: As laid out by	y H.M.Mac Donald.			CONTRAC	CTOR	Craig
WELL NO. AOCA	A2SE13 WELL TYPE				DATE:	
DRILLER:			INSPECTOR: J.:	Zarks		
	t (NOTE: WATER LEVEL READINGS	FROM TOP OF	PVC)	1		
DATE:	WATER LEVEL BEFORE:			WATER LI	EVEL AFTER:	
TAKEN	MINUTES AFTER DEVELOP	MENT				
	9" dia. Ma	nhole cover		<u></u>		
	4" dia. PVC pipe w					
	_				0.0	Top of surface
	L1	>	Y			& cement grout
L1 =	_					
	The state of the s		,			
L2 =	L2					Towns () and ()
***************************************	-			****		Top of bentonite seal
L3 =						
**************************************	-	,		*****		Top of well gravel filter
	1	\				
				=		
					openings	
	L3			3	.020"	
				∄ │		
				3		
Remarks:						
				3		
] _		Bottom of well
		Cap				Bottom of boring
						· · · · .
		I <	6" Boring diam	eter		



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Project		Port Ivory-	Voluntary C	leanup	Contra	ctor	Craig	Boring No.	A2SE13A	Date	9/14/07
Location	As Laid ou	t by Hatch M	ott Mac Do	nald, 3' North-East c	fAOC	-A2SE 13.	Contract No.	426-06-008	Surface Elev.		
Spoon	2" O.D.	1.375" I.D.	Hammer/ Fall (in.)	140 lbs./30"			G	round Water	Level		
Hammer [*]	Гуре	Safety	Hole Type	1		Date	Time	Depth (ft)		Remarks	
Inspector		J.Zarks			9/	14/07	11:30AM	5.0'	in Sample # (05.	
Driller		A. Tricanic	0								
site_code											
	le Start Depth End Depth (ft) Method Spoon Blows/6					PID Reading		Sample Desc	ription and Re	marks	
01	0.0	1.0	HA.	Hand Auger	Full	0.0	Fill Crushed R	lock-DGABC.			
02	1.0	2.0	HA.	Hand Auger	Full	66.3	Fill Grayish-Br	own C-F San	d & Gravel,tr.S	silt.	
03	2.0	4.0	HA	Hand Auger	Full	45.6	Same.				
4	4.0	5.0	НА	Hand Auger	Full	26.6	Same.				
05	5.0	6.0	НА	Hand Auger	Full	17.6	Same.				
06	6.0	6.5	HA	Hand Auger	Full	15.0	Same.				
	6.5									Botto	m of Boring.
							Note:Obstructi w/ PID-Meter &	ion at 6.5",cor & discarded, s	ncrete slab,Al amples # 03(3	l sample 3.5 -4.0')	s screened & #05(5.5'-
							,		4.0) & 05 (5	.5' 6.0')	were saved.

V											
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PROJECT: Port Ivory-Volum	ntary Cleanup	CONTRACT NO. 426-06-008
LOCATION: As Laid out by	Hatch Mott Mac Donald, 3' North	n-East o fAOC-A2SE 13. CONTRACTOR Craig
WELL NO. A2SE	13A WELL TYPE	DATE:
DRILLER:		INSPECTOR: J.Zarks
Well Development Report	(NOTE: WATER LEVEL READING	SS FROM TOP OF PVC)
DATE:	WATER LEVEL BEFORE:	WATER LEVEL AFTER:
TAKEN	MINUTES AFTER DEVELO	PMENT
	9" día. N	Manhole cover
	4" dia. PVC pipe	w/locking cap
L1 =	L1	0.0 Top of surface & cement grout
L2 =	L2	Top of bentonite seal
L3 =	L3	openings .920"
Remarks:		Bottom of well Bottom of boring
		6" Boring diameter

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Engineering Department Materials Engineering

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Project	Port- Ivory	Voluntary	clean up		Contrac	ctor	Craig	Boring No.	AOC-2ASE14 Date	11/5/2007
	As laid out		ott Mc.Dona	ald			Contract No.	426-06-008	Surface Elev.	
Spoon		1.375" I.D.	Hammer/ Fall (in.)	140 lbs./30"			G	round Water	Level	
Hammer *	Туре	Safety	Hole Type	1	[Date	Time	Depth (ft)	Remarks	5
Inspector		J.Zarks			11	/5/07	11:40AM	4.5	in sample # 03	
Driller		C.Cohen								
site_code	9									
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading	I A A MANAGEMENT	Sample Des	cription and Remarks	
	0.0	0.5					Asphalt -Laye	er,		<u> </u>
01	5.0	2.0	HA	Hand Auger	Full	0.0	Reddish-brov	vn C-F Sand 8	Gravel tr. Silt	
02	2.0	4.0	HA	Hand Auger	Full	0.0	Grayish-brow	n C-F Sand 8	Gravel tr. Silt	
3	4.0	6.0	НА	Hand Auger	Full	14.8	Same /with v	vood		
04	6.0	8.0	SS	6-5-5-3	18"	0.0	Same			
	8.0								Во	ttom of boring
			. ,				Note:All sam discarded,sa	ples screened mples #03(4.	d with PID-meter & 0' - 4.5')& #04(7.5'-8.0	')were saved.
									· · · · · · · · · · · · · · · · · · ·	
1.							J. Marie W. W. Paris			

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					soring	j Kepoi	L .		
Project	Port- Ivory	Voluntary	clean up		Contrac	ctor	Craig	Boring No.	AOC-2ASE15 Date 11/5/2007
	As laid out	by Hatch M	ott Mc.Dona	ald			Contract No.	426-06-008	Surface Elev.
Spoon	2" O.D.	1.375" l.D.	Hammer/ Fall (in.)	140 lbs./30"			G	round Water	Level
Hammer 1	Гуре	Safety	Hole Type	1		Date	Time	Depth (ft)	Remarks
Inspector		J.Zarks			11	/5/07	1:30PM	4.0	In sample # 03
Driller		C.Cohen_							
site_code			<u>,</u>						
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	cription and Remarks
01	0.0	2.0	НА	Hand Auger	Full	0.0	Reddish-brov	vn C-F Sand 8	Gravel tr. Silt
02	2.0	4.0	НА	Hand Auger	Full	0.0	Same		
03	4.0	6.0	НА	Hand Auger	Full	0.0	Same		
<i>j</i> 4	6.0	6.5	НА	Hand Auger	Full	0.0	Same		
	6.5								Bottom of boring.
							Note:All sam discarded,sa	ples screened mple #02(3.5'	l with PID-meter & -4.0') was saved.
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				l	<u> Boring</u>	Repor	<u>t </u>			
Project	Port- Ivory	Voluntary (clean up		Contrac	tor	Craig	Boring No.	AOC-2ASE16 Date	11/5/2007
Location	As laid out	by Hatch M	ott Mc.Dona	ald	·		Contract No.	426-06-008	Surface Elev.	
Spoon		1.375" l.D.	Hammer/ Fall (in.)	140 lbs./30"			G	round Water	Level	
Hammer			Hole Type	1)ate	Time	Depth (ft)	Remarks	S
Inspecto		J.Zarks			11	/5/07	2:30PM	4.5	In sample # 03	
Driller	<u> </u>	C.Cohen							A. A. A. A. A. A. A. A. A. A. A. A. A. A	
site_cod	e									
Sample No.		End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Des	cription and Remarks	
01	0.0	2.0	НА	Hand Auger	Full	0.0	Brown C - F	Sand,tr.Grave	el,tr.Silt.	
02	2.0	4.0	HA	Hand Auger	Full	0.0	Same			
03	4.0	6.0	НА	Hand Auger	Full	0.0	Same			
4	6.0	7.0	НА	Hand Auger	Full	0.0	Same			
	7.0								Во	ttom of boring.
							Noto:All sam	nles screene	d with PID-meter &	
							discarded,sa	ample #03(4.0	' - 4.5') was saved.	
									WALL, ARRIVE TO THE RESIDENCE OF THE PROPERTY	
									and the state of t	

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Engineering Department Materials Engineering

				<u> </u>	soring	Repor	l .					
Project	Port-Ivory V	oluntary C	lean up		Contrac	tor	Craig	Boring No.	AOC-2ASE17 Date 11/7/07			
Location	As Laid out	by H.M.Mc	.Donald.				Contract No.	426-06-008	Surface Elev.			
Spoon			Hammer/ Fall (in.)				G	round Water	Level			
Hammer 1	Type		Hole Type			ate	Time	Depth (ft)	Remarks			
Inspector		J.Zarks			11/	17/07	8:30AM	4.9	In sample # 03			
Driller		C.Cohen										
site_code			- AMAZIA									
	T	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Des	cription and Remarks			
01	0.0	2.0	НА	HandAuger	Full	0.0	Fill Brown C-	F Sand & Gr	avel ,tr . Silt			
02	2.0	4.0	НА	HandAuger	Full	0.0	Same					
03	4.0	6.0	НА	HandAuger	Full	0.0	Same					
<i>j</i> 4	6.0	7.0	НА	HandAuger	Full	0.0	Same					
	7.0								Bottom Of Boring			
							Note:All sam	ples were scr mples #03(4.	eened with PID-Meter & 0'-4.5') (6.5"-7.0') were saved.			
(<u> </u>												
				<u></u>								

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Project	Port-Ivory V	/oluntary C	lean up		Contrac	tor	Craig	Boring No.	AOC-2ASE18 Date	11/7/07	
	As Laid out		.Donald.		г		Contract No.	426-06-008	Surface Elev.		
Spoon			Hammer/ Fall (in.)				G	round Water	Level		
Hammer 1	ivne		Hole Type			Date	Time	Depth (ft)	Remarks		
Inspector		J.Zarks			11/	11/17/07 10.00AM 3.9 In sample # 02					
Driller		C.Cohen							· · · · · · · · · · · · · · · · · · ·		
		0.000									
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Des	cription and Remarks	Marin Marin Control	
	0.0	0.7	RC	Cutter Head	Full	0.0	Asphalt Laye	ſ			
01	0.7	2.0	НА	HandAuger	Full	0.0	Fill Brown C	- F Sand & Gr	avel ,tr . Silt		
02	2.0	4.0	НА	HandAuger	Full	0.0	Same		Acceptance of the second secon	······································	
3	4.0	6.0	HA	HandAuger	Full	0.0	Same				
04	6.0	8.0	НА	HandAuger	Full	0.0	Same				
	8.0									m Of Boring	
							Note:All sam discarded,S	nples were scr ample #02 (3.)	eened with PID-Meter & 0'-3.5')was saved.		
							-				
										<u></u>	
										<u></u>	
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Project	Port-Ivory \	/oluntary C	lean up		Contrac	tor	Craig	Boring No.	2A-SE18	Date	11/7/07
	As Laid out		.Donald.				Contract No.	426-06-008	Surface Elev.		
Spoon			Hammer/ Fall (in.)			***************************************	G	round Water	Level		
Hammer 1	уре		Hole Type			Date	Time	Depth (ft)		Remarks	
Inspector		J.Zarks			11	/7/07	10:00AM 3.9 In sample # 03				
Driller		C. Cohen									
site_code											
	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Des	cription and Re	emarks	
0.1	0.0	0.7	НА	Cutter Head	Full	0.0	Asphalt Laye	<u>r</u>			
	0.7							<u>, ,</u>		Cha	ange in Stra
02	0.7	2.0	НА	Hand Auger	Full	0.0	Fill Brown C-	F Sand & Gra	vel,tr Sil		
ر 3	2.0	4.0	HA	Hand Auger	Full	0.0	Same				
04	4.0	6.0	НА	Hand Auger	Full	0.0	Same				
05	6.0	8.0	HA	Hand Auger	Full	0.0	Same				
	8.0								L XI DI		tom of Borin
							Note:All sam discarded,sa	iples were scr imple #03(3.0	eened with Pl)'-3.5')was sa	ved.	Э.
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<u> </u>											

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Project Port-Ivory Voluntary Clean up Contractor Craig Boring No. 2ASE19 Data	
Contract No. 426-06-008 Surface Elev.	te: 11/9/07
Spoon 3" O.D. 2.875" I.D. Fall (in.) 140 lbs./30" Ground Water Level	
Inspector J.Zarks	VE
Driller C.Cohen site_code Sample No. (ft)	arks
Sample No. Start Depth (ft) Method Spoon Blows/6" Recov'd Reading Sample Description and Remark	
Sample No. Start Depth (ft) Method Spoon Blows/6" Recov'd Reading Sample Description and Remark	
No. (ft) (ft) Spoon Blows/6" cov'd Reading Sample Description and Remark O1 0.0 2.0 HA Hand Auger Full 0.0 Fill Brown C-F Sand & Gravel, Crushed Rock, L O2 2.0 4.0 HA Hand Auger Full 0.0 Fill Black C-F Sand & Gravel O3 4.0 6.0 HA Hand Auger Full 0.0 Same B Note: All samples were screened with PID-met	
02 2.0 4.0 HA Hand Auger Full 0.0 Fill Black C-F Sand & Gravel 03 4.0 6.0 HA Hand Auger Full 0.0 Same 6.0 B Note: All samples were screened with PID-met	s
03 4.0 6.0 HA	ittle Silt.
6.0 B Note: All samples were screened with PID-met	
Note: All samples were screened with PID-met	
Note: All samples were screened with PID-met	ottom Of Boring.
	ter &



***************************************					וווויטם	g Kepo	11.				
Project	Port-Ivory	Voluntary-o	lean up		Contra	ictor	Craig	Boring No.	A2SE BH20A	Date	11/8/2007
Location	As laid out	by Hatch M	lott Mc.Don	ald			Contract No.	426-06-008	Surface Elev.		
Spoon	2" O.D.	1.375" I.D.	Hammer/ Fall (in.)	140 lbs./30"			G	round Water	Level		
Hammer	Туре	Safety	Hole Type	1		Date	Time	Depth (ft)	F	Remarks	
Inspector	•	J.Zarks									
Driller		C.Cohen.									
site_code	9										
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Ren	narks	<u> </u>
01	0.0	2.0	НА	Hand Auger	Full	0.0	Fill Reddish-b	rown C-F San	d & Gravel, Cri	ushed F	Rock.
02	2.0	3.0	НА	Hand Auger	Full	0.0					
02	2.0	4.0	НА	Hand Auger	Full	0.0	Grayish-blad	ck C-F Sand,C	inders & Slag		
<u> </u>	4.0	5.5	НА	Hand Auger	Full	0.0	Same				
·	5.5								7.77	Cha	nge in Strata
04	5.5	6.0	HA	Hand Auger	Full	0.0	Brown Peat.				
Visiting	6.0									Bottor	n Of Boring.
							Note:All sampl discarded,sam	es screened v ple.# 02(3.0'-3	vith PID-Meter 3.5') was saved	8	
											
<u></u>											C. Line



					LJUI III	g Kepo	11	···	
Project	Port-Ivory	Voluntary-o	dean up		Contra	ctor	Craig	Boring No.	BH-2ASE19B Date 11/7/2007
Location	As laid out	by Hatch M	lott Mc.Don	ald,15'N of BH 19	A		Contract No.	426-06-008	Surface Elev.
Spoon	2" O.D.	1.375" I.D.	Hammer/ Fall (in.)	140 lbs./30"			G	round Water	
Hammer 1	Гуре	Safety	Hole Type	1		Date	Time	Depth (ft)	Remarks
Inspector		J.Zarks			11	/17/07	11:55AM	3.0'	In sample # 03
Driller		C.Cohen							
site_code									
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Remarks
01	0.0	0.5	НА	Hand Auger	Full	0.0	Fill Crushed R	łock.	
	0.5								Change in Strata
02	0.5	2.0	НА	Hand Auger	Full	0.0	Fill Reddish-bi	rown Gravel,L	ittle C-F Sand,some Silty Clay.
∕ 1 <u>3</u>	2.0	3.0	HA	Hand Auger	Full	0.0	Same		
	3.0								Bottom Of Boring.
							Note:All sampl	es screened v	with PID-Meter & discarded.
							Obstruction at	3.0',concrete	slab.
							·		
****				· · · · · · · · · · · · · · · · · · ·					
					L				



1					7	g iveho	/I L		
Project	Port-Ivory	Voluntary-c	clean up	·	Contra	ictor	Craig	Boring No.	BH-2ASE19A Date 11/7/2007
Location	As laid out	t by Hatch M	/lott Mc.Don	ald			Contract No.		Surface Elev.
Spoon	2" O.D.	1.375" I.D.	Hammer/ Fall (in.)	140 lbs./30"				round Water	
Hammer	Туре	Safety	Hole Type	1		Date	Time	Depth (ft)	Remarks
Inspector	•	J.Zarks				/17/07	11:30AM	3.0'	In sample # 03
Driller		C.Cohen			<u> </u>	· · · · · · · · · · · · · · · · · · ·		0.0	in sample # 03
site_code									
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Remarks
01	0.0	0.5	НА	Hand Auger	Full	0.0	Fill Crushed R	ock.	
	0.5			· · · · · · · · · · · · · · · · · · ·					Change in Strata
02	0.5	2.0	НА	Hand Auger	Full	0.0	Fill Reddish-br	own Gravel,Li	ittle C-F Sand,some Silty Clay.
.03	2.0	3.0	НА	Hand Auger	Full		Same		
04	3.0	3.5	НА	Hand Auger	Full	0.0	Same		
	3.5								Bottom Of Boring.
							Note:All sampli discarded,sam	es screened v	vith PID-Meter & 3.0')was saved.
							Obstruction at		
									- The state of the
		·							
								·····	

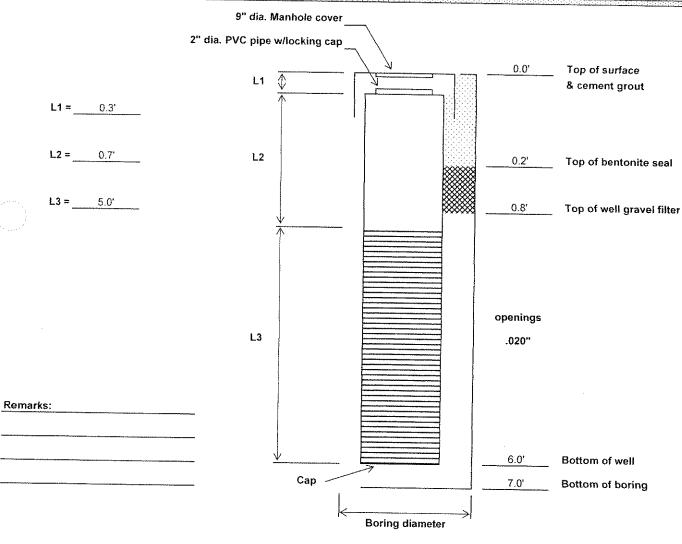
THE PURTAUTHORITY OF NY & NU

Engineering Department Materials Engineering

Dynisot	D = 4 1	Mark and a	~ t		T	<u> </u>				1	
Project		Voluntary (Contra	ctor	Craig	Boring No.	MW1-2ASE	Date:	12/5/07
Location	As Laid οι	ut by H.M.Me	c.Donald. Hammer/		1		Contract No.	426-06-008	Surface Elev.		
Spoon	3" O.D.	2.875" I.D.	Fall (in.)	140 lbs./30"			G	round Water	Level		
Hammer 1	Туре	Auto	Hole Type	1		Date	Time	Depth (ft)		Remarks	
Inspector		J.Zarks									
Driller		C.Cohen									
site_code											
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Ren	narks	
	0.0	6.0	НА	Hand Auger	Full		Pre	viously driilled	as 2ASE 12 c	n 9/18/07	
:									,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
error (<u></u>											
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PROJECT	: Port Ivory-Volu	untary Clean i	up.			CONTRA	CT NO.	426-06-008	
LOCATIO	N: As Laid out by	H.M.Mc.Don	ald.			CONTRA	CTOR	Craig	
WELL NO.	. MV/1	-2ASE	WELL TYPE	"A" Monitor			DATE:	12/5/07	
DRILLER: Well Deve		t (NOTE: WA	TER LEVEL READING	S FROM TOP O	INSPECTOR:	J.Zarks			
DATE:	12/6/07	WATER L	EVEL BEFORE:			WATER	LEVEL AFTER		
TAKEN		MINUTES	AFTER DEVELO	PMENT					

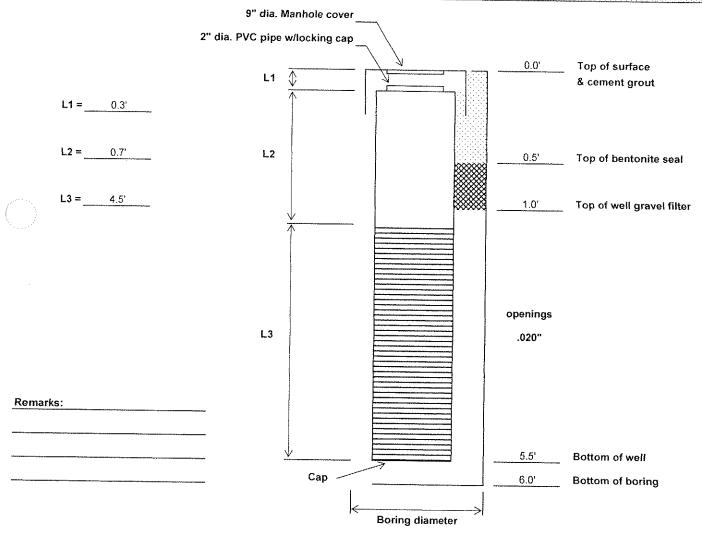




Project	Port-Ivory	Voluntary	Clean up		Contra	actor	Craig	Boring No.	MW2-2ASE	Date:	12/10/07
Location	As Laid ou	ut by H.M.M	c.Donald.				Contract No.	426-06-008	Surface Elev.		
Spoon	3" O.D.	2.875" I.D	Hammer/ Fall (in.)	140 lbs./30"			G	round Water			
Hammer	Туре	Auto	Hole Type	1		Date	Time	Depth (ft)		lemarks	
Inspector		J.Zarks								Cinarks	
Driller		C.Cohen									
site_code				. Annabad						······································	
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Rem	narks	
	0.0	6.0	НА	Hand Auger	Full			Previously	driilled as 2AS	E8	
Year of											***************************************
											· · · · · · · · · · · · · · · · · · ·

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								174114444			
										<u></u>	

PROJECT:	Port Ivory-Volu	intan Clean i	rp.							
	· Oit ivoly voic	intery Orean c	ν.			CONTRACT NO. 426-06-008				
LOCATION:	: As Laid out by	H.M.Mc.Dona	ald.			CONTRA	CTOR	Craig		
WELL NO.	MW2-	2ASE	WELL TYPE	"A" Monitor	-		DATE:	12/10/07		
DRILLER:	C.Cohen.				INSPECTOR:	J.Zarks				
Well Develo	pment Report	(NOTE: WA	TER LEVEL READING	S FROM TOP O	PVC)					
DATE:	12/10/07	WATER L	EVEL BEFORE:		3.5'	WATER L	EVEL AFTER:	3.4'	***************************************	
TAKEN	60	MINUTES	AFTER DEVELO	PMENT						

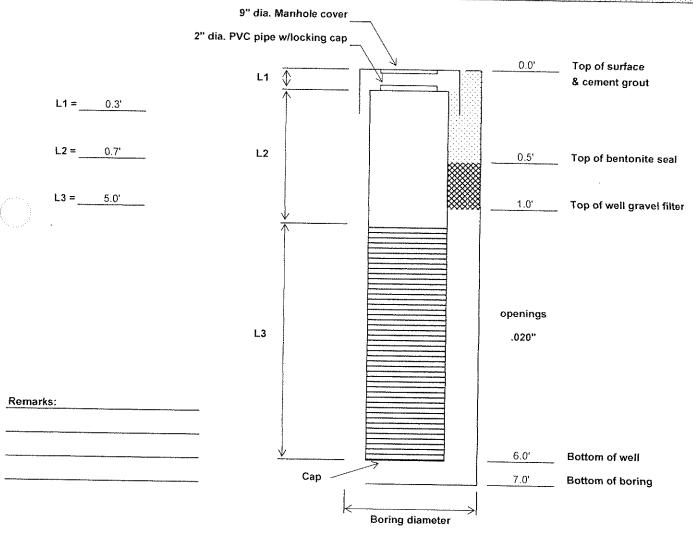


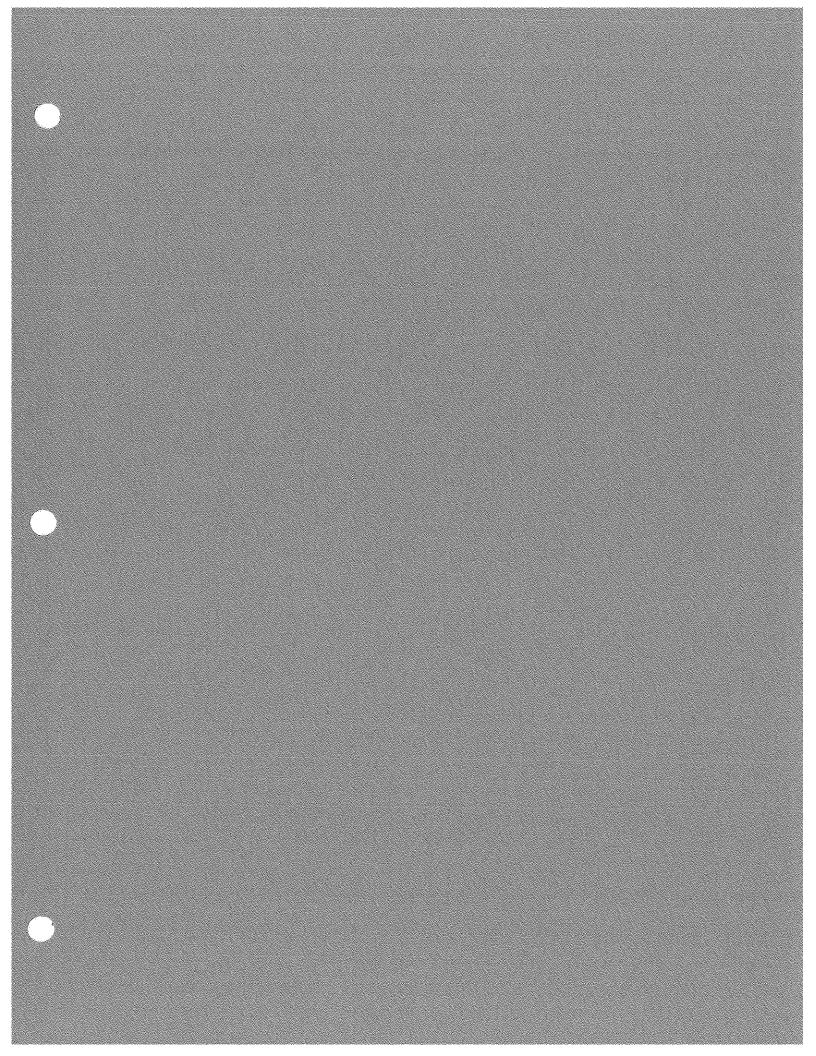
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Engineering Department Materials Engineering

f					<u> </u>						
Project	Port-Ivory	Voluntary (Clean up		Contra	ctor	Craig	Boring No.	MW3-2ASE	Date:	12/10/07
Location	As Laid ou	ıt by H.M.Mc	c.Donald.	·			Contract No.		Surface Elev.		
Spoon	3" O.D.	2.875" I.D.	Hammer/ Fall (in.)	140 lbs./30"			G	round Water			
Hammer 1	Гуре	Auto	Hole Type	1		Date	Time	Depth (ft)	F	Remarks	
Inspector		J.Zarks		· · · · · · · · · · · · · · · · · · ·							
Driller		C.Cohen		77777							
site_code		· · · · · · · · · · · · · · · · · · ·	,							***************************************	···········
Sample No.	Start Depth (ft)	End Depth (ft)	Method	Spoon Blows/6"	Re- cov'd	PID Reading		Sample Desc	ription and Ren	narks	10. 10. 10. 10. 10. 10. 10. 10. 10. 10.
	0.0	7.0	НА	Hand Auger	Full			Previously of	driilled as 2AS	E10	
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www							•				
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PROJECT:	Port Iron Malus	ton. Ole				1			
THOOLOT,	Port Ivory-Volun	iary Clean up).		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	CONTRA	426-06-008		
LOCATION:	As Laid out by H	I.M.Mc.Donal	d.			CONTRA	CTOR	Craig	
WELL NO.	MW3-2	ASE	WELL TYPE	"A" Monitor			DATE:	12/10/07	
DRILLER:	C.Cohen.				INSPECTOR:	J.Zarks			
Well Develo	pment Report	(NOTE: WATE	ER LEVEL READING	S FROM TOP OF	PVC)	"1			
DATE:			VEL BEFORE:		3.3'	WATER L	EVEL AFTER:	3.2'	
TAKEN			AFTER DEVELO						





THE PORT AUTHORITY OF NY & NJ

MATERIALS ENGINEERING DIVISION WELL MONITORING DATA SHEET

			W	ELL MO	NITORI	NG DAT	TA SHEE	ET			
PROJECT: H	HMT - Por	rt Ivory				CHARG	E CODE:				
WELL DESIG	NATION:	1W - T	- 2ASF	-				1107			
LOW FLOW?	NO				······································		DIAMETER		·		
WEATHER CO	ONDITIONS	5: 40	0 (100				IP DISTANC		Shed	,	
		·						VE 1700	271.C.		A.S.
			DISTA	NCE FRO	M TOP OF	PIPE TO:		1	Dir	(ppm)	-
	TIME		WATER (FE			RODUCT (I	FEET)	_	<u> </u>	y (ppiri)	1
PRE-PURGE:	111 :29		22						170	7 —	
POST PURGE	12 35	4.0	f	,,					100	1	
	DEPTH O	F WELL:		6.0	3						
	DEPTH T	O WATER		3.2	Z						(FEE
	LENGTH	OF WATE	R COLUMN	2.8	***						(FEE
	FACTOR			0.1							(1 C.C.
	VOLUME	TO BE RE	MOVED	1.7		per v	rolume x 3	volumes (n	nin) = 5	22	(LITER
			* FACTOR =	0.618 FO	R 2 INCH D	NAMETER '	WELL CAS	ING			(E) (E)
Low Flow #'s	± 0,1	± 3%	FACTOR = ± 10%	2 471 FO ± 10%	R 4 INCH E ± 3%	NAMETER	WELL CAS				
	рН	COND	TURB	DO	TEMP	SALINITY	TDS	± 10mv ORP	Purge Voi	< 0.3 ft DTW/P -	100-500r Flow Rai
TIME	(SU)		(NTU)	(mg/L)	(°C)	(%)	(g/L)	(mV)	} ~	(ft)	(ml / mir
14:03	10.38	0.293		11.49	9.72	011	1.67	-153	Start	3.55	1.
12:07	10.49	0201	157.0	341	8.23	0.09	129	-121	2.00		
12 11	10.50	0.203	135.0	2.73	847	0.10	1.31	- 13/	4.00		1
12:16	9.97	0.210	805.0	5.32	8.65	0.10	1.35	- P3	6.00	4.07	
					<u> </u>	 		0 -	0.00	7.07	
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MPLED BY:	N.G	£ 5.5	5`				SAMPLE TII	ME: 127	<u> </u>		
MMENTS:		(1	DUPLICATE	TAKEN?	Na		
			·		COLUMN TO SERVICE SERV				, - 		



		<u>IVIA I</u>	EKIALS	FIACIL	FERING DIVIS	ION		<i>*</i>
*		<u>W</u>	ELL MON	VITORI	NG DATA SHEE	=		
PROJECT: H	HMT - Port	lvory			CHARGE CODE:			
WELL DESIGN	NATION:	1W-7- ZA	SÉ		DATE: /2 / 19	107		
LOW FLOW?	,				CASING DIAMETER	R: 2 (In)		
WEATHER CO	NDITIONS	400 Clear			STICK-UP DISTAN	CE: Flus	. hed	***************************************
			NCE FROM	CHICKS THE CONTRACTOR	OF TOTAL CAR STORY		PID (ppm)	
PRE-PURGE.	() 20	WATER (FEI	=T)	PF	RODUCT (FEET)			
POST PURGE:	**************************************	5.73 5.24					118	
	DEPTH OF	WELL:	553	2	OVERAL SQUARE STATE OF THE STAT			(FEET)
į	DEPTH TO	WATER	3.13			***************************************		(FEET)
	LENGTH C	F WATER COLUMN	2.39					(FEET)
	FACTOR		0 618	7 .				
	VOLUME T	O BE REMOVED	1.48		per volume x 3	l volumes (m	in) = 4.44	(LITERS)
					NAMETER WELL CAS		· · · · · · · · · · · · · · · · · · ·	

			FACTOR :	= 2.471 FOI	R 4 INCH D	IAMETER V	VELL CASI	NG			
Low Flow #'s	± 0.1	± 3%	± 10%	± 10%	± 3%			± 10mv		< 0.3 ft	100-500ml
TIME	pH (SU)	COND	TURB	DO	TEMP	SALINITY	•	ORP	Purge Vol.		Flow Rate
			(NTU)	(mg/L)	(°C)	(%)	(g/L)	(mV)	(L)	(ft)	(ml / min)
11:22	10.37	1.62	4070	11.38	19.28	0.51	59	1-112	Start	313	1
11 - 25	10-31	6.424	-5 OF	7.49	9.28	0.23	2.91	-108	1.50		
11:27	10.16	0.431	925.0	4.86	9.43	6.22	2.79	-93	3.00		
11:31	991	6.430	5530	719	9 35	0.21	269	-82	4.50	5 24	
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		1	10	1	<u> </u>	L		<u> </u>	<u> </u>]	
SAMPLED BY:	M.C.	8,	5.12				SAMPLE T	IME H	35		
		·					DUPLICAT	E TAKEN?	No	····	
COMMENTS:											
											······································

MATERIALS ENGINEERING DIVISION WELL MONITORING DATA SHEET

			₩	<u>ELL MO</u>	NITORI	NG DAT	A SHEE	I)	*				
PROJECT: H						CHARGE CODE.							
WELL DESIG		<u> 11U - 3</u>	- 2AS	<u>e</u>	· · · · · · · · · · · · · · · · · · ·	DATE:	2119	1.200	}_				
LOW FLOW?		,		:		CASING	DIAMETER	: <u>2</u> (In)					
WEATHER CO	NDITIONS	s: 40°	<u>Clivic</u>	1		STICK-U	P DISTANC	EFIUS	hed				
<u> </u>				1		J							
	TIME	<u> </u>		NCE FROM	District of the Control of the Contr]	PID	(ppm)]		
PRE-PURGE:	10 : 3		WATER (FE - · 54	E 1)	P	RODUCT (F	EET)	-	17	/1			
POST PURGE			08		The same of the sa			-	1 +	. 7			
· · · · · · · · · · · · · · · · · · ·					<u> </u>				<u> </u>				
	DEPTH C			6.03		·					(FEE)		
		O WATER	3.001.1184.1	2.54 3.49		· · · · · · · · · · · · · · · · · · ·		***************************************			(FEET		
	FACTOR	OF WATER	R COLUMN	0.613		· · · · · · · · · · · · · · · · · · ·					(FEET		
		TO BE REI	MOVED	2.16									
	VOCOME		* FACTOR :		R 2 INCH F	V 18Q	olume x 3	volumes (n	$\sin x = 6$	48	(LITERS		
			FACTOR :	= 2.471 FOI	R 4 INCH D	IAMETER !	WELL CASI	NG					
Low Flow #'s	± 0.1	± 3%	± 10%	± 10%	± 3%	15.1.1.1.1.5		± 10mv		< 0.3 ft	100-500m		
TIME	(SU)	()	(NTU)	DO (mg/L)	(°C)	SALINITY (%)	TDS (g/L)	ORP (mV)	Purge Vol.	DTW/P	Flow Rate (ml / min)		
10 34	1153	62.3	FOF	11 14	804	0.03	0.395	-149	Start	2.54	(1017 11011)		
10 43	10 45		-5 o)=	7.95	810	0 03		-137	2.50	2.01	 		
10 49	10.89	57.7	-5 o F	4.50		002	0.392				 		
i0 : 55	(0.49	58.7			11.04		0.368		5.00		-		
رد . ۲۰	10.41	30.4	411.0	4.07	13.42	0.02	0.377	-138	7.50	5.08			
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	.	\$ 5.	R		<u>L</u>		<u></u>		7				
MPLED BY:	NG	7 > .					SAMPLE TI	ME: 110		·-			
OMMENTS:							DUPLICATE	IAKEN?	V0	·			



MATERIALS ENGINEERING DIVISION

			W	ELL MOI	NITORIN	IG DAT	A SHEE	Ţ	•				
PROJECT: HI	HMT - Port			- C.,		CHARGE	CODE:						
WELL DESIGN	IATION:	MW-	16 W	4		DATE:	2120	107					
LOW FLOW?	NO					CASING	DIAMETER	2 (In)		***************************************			
WEATHER CO	NDITIONS	: 4/20	Clear		THE PERSON NAMED AND ADDRESS OF THE PERSON NAMED AND ADDRESS O	STICK-UF	DISTANC	E: FIUSI	hed.	***************************************			
									TT	»····	***************************************		
			DISTA	NCE FROM	1 TOP OF F	PIPE TO: PID (ppr				(ppm)	7		
	TIME		VATER (FE	ET)	PR	ODUCT (FI	EET)]					
PRE-PURGE:	11:45	2:(26	Titi 985 irli sejenjerirele jelena "azan "azin jezan				1		abla			
POST PURGE:	12:45	<u> 15</u>	<u> </u>		<u> </u>		·	J	<i>\(\psi\)</i>	0	j		
	DEРТН О	F WELL:		6.18	7			·			(FEET)		
)	DEPTH TO	O WATER		7.0	6				, , , , , , , , , , , , , , , , , , , ,	<u> </u>	(FEET)		
	LENGTH (OF WATER	COLUMN	4. 1	2						(FEET)		
	FACTOR			0.61									
	VOLUME:	TO BE REM	IOVED	2. 9	5.5	per vo	olume x 3	volumes (m	in.) = 7	65	(LITERS)		
·			FACTOR =										
Low Flow #'s	± 0.1	± 3%	-FACTOR:= ± 10%	:12:471-FOF ± 10%	₹4 INCH DI ± 3%	IAMETER V	VELL CASI	NG: ± 10mv	•		100 C00		
1	pН	COND	TURB	DO	TEMP	SALINITY	TDS	ORP	Purge Vol.	< 0.3 ft DTW/P	100-500ml Flow Rate		
TIME	(SU)	()	(NTU)	(mg/L)	(°C)	(%)	(g/L)	(mV)	(.L)	(ft)	(ml / min)		
12:10	6.51	69.5	-5.0F	10.26	3 63	6.0	0,001	~33	5+45	2.06			
12:15	7.05	63.2	-50F	10.11	2.33	0.0	0 001	-41	3.00				
WEN	τ	DR-Y							6.00				
									9.00	5.71			

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			}										
·			<u>-</u>	<u>-</u>			[
AMPLED BY:	1.61	05B	<u> </u>	5.K			SAMPLE TI	ME: 12	225				
AMPLED BY: \	110m	f dril	(a)	17.19	< .]	SAMPLE TI DUPLICATE	TAKEN?	NO				
OIVINETA 12	Or CPI	Y	- (°	141		L Sak	y 100	Atice	1 F /	<u> </u>	19 ye		



MATERIALS ENGINEERING DIVISION WATER QUALITY DATA SHEET

PROJECT: HHMT - PORT IVORY Facility Site 2	CHARGE CODE: CP11233295
	DATE: 09 / 23 / 2008
WEATHER CONDITIONS:	

SAMPLE ID	SAMPLE TIME	ANALYSIS TIME	pH * (SU) €	COND (ms/m)	DO (mg/L)	TEMP	ORP (mV)	TURB (NTU)
BC-SW-1	9:57	9:59	6.78	28.4	5.17	17.73	-15.8	8.07
BC-SW-2	10:04	10:06	7.02	27.4	6.75	17.36	-23.3	10.84
BC-SW-3	0.43	10:17	7.21	31.6	8.43	17.22	-14.8	9.02
BC-SW-4	0.42	10:12	7.13	1.5	4.95	22.17	-113.3	16.70
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SAMPLED BY:	T. Gard / S. Byrne	
COMMENTS:		
Low tid	le at 09:49	
BC-SW	1-4 taken directly from discharge point east of SW-2 (sh	ark tail).