PHASE II INVESTIGATION REPORT

COKE POINT CONTAINER TERMINAL
AREA B: PARCELS B10, B11, B12, and B18
TRADEPOINT ATLANTIC
SPARROWS POINT, MARYLAND

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1.0 INTRODUCTION

ARM Group LLC (ARM), on behalf of Tradepoint Atlantic (TPA), has completed the Phase II Investigation on the portion of the TPA property (formerly Sparrows Point Terminal, LLC) that has been designated as the Coke Point Container Terminal (Container Terminal) area, which includes portions of Area B: Parcels B10, B11, B12, and B18 (the Site). The Container Terminal is comprised of 168 acres of the approximately 3,100-acre former plant property located as shown on **Figure 1**.

The Phase II Investigation was performed in accordance with procedures outlined in the approved Phase II Investigation Work Plan for the Container Terminal (Revision 0 dated September 14, 2023) (Work Plan) and the associated Comment Response Letter (November 16, 2023). This Work Plan and the subsequent comment response letter were approved by the Maryland Department of the Environment (MDE) and United States Environmental Protection Agency (USEPA) (hereafter referred to as the Agencies) via email on December 12, 2023.

Results from this investigation phase are included and discussed in this report. The investigations were implemented in compliance with requirements pursuant to the following:

- Administrative Consent Order between TPA (formerly Sparrows Point Terminal, LLC) and the MDE effective September 12, 2014; and
- Settlement Agreement and Covenant Not to Sue (SA) between TPA (formerly Sparrows Point Terminal, LLC) and the USEPA effective November 25, 2014.

The Site is part of the acreage that was removed (Carveout Area) from inclusion in the Multimedia Consent Decree between Bethlehem Steel Corporation, the USEPA, and the MDE (effective October 8, 1997) as documented in correspondence received from the USEPA on September 12, 2014. Based on this agreement, the USEPA has determined that no further investigation or corrective measures will be required under the terms of the Consent Decree for the Carveout Area. However, the SA reflects that the property within the Carveout Area will remain subject to USEPA's Resource Conservation and Recovery Act Corrective Action authorities.

An application to enter the full TPA property (3,100 acres) into the MDE's Voluntary Cleanup Program was submitted to the MDE and delivered on June 27, 2014. The property's current and anticipated future use is Tier 3 (Industrial) and plans for the full TPA property include continued demolition and redevelopment over the next several years.

TPA has developed an initial master plan that shows potential future development areas across the entire TPA property. This master plan shows future development of the Site as a container terminal. Development will be proposed through the future submission of a Response and Development Work Plan (RADWP).

1.1. SITE HISTORY

From the late 1800s until 2012, the production and manufacturing of steel was conducted at Sparrows Point. Iron and steel production operations and processes at Sparrows Point included raw material handling, coke production, sinter production, iron production, steel production, and semi-finished and finished product preparation. In 1970, Sparrows Point was the largest steel facility in the United States, producing hot and cold rolled sheets, coated materials, pipes, plates, and rod and wire. The steel making operations at Sparrows Point ceased in fall 2012.

Groundcover at the Site is comprised of approximately 94% non-native fill materials (i.e., slag) based on the approximate shoreline of the Sparrows Point Peninsula in 1916, as shown on **Figure 2** (adapted from Figure 2-20 on the Description of Current Conditions (DCC) Report prepared by Rust Environment and Infrastructure, dated January 1998).

The Site is mainly positioned within the Coke Point Area (CPA) of the TPA property, and includes portions of Parcels B10, B11, B12, and B18. The CPA was the location of the former coking operations from the 1940s to the early 1980s. Numerous plants, shops, offices, batteries, tar storage tanks, and oil tanks were located throughout the Site. Prior to that time, the CPA did not exist and was open water; slag (a byproduct of iron- and steel-making) was used as an on-site fill material to build up the land surface. Historic aerial photographs show a progression of filling and expansion of operations in the CPA beginning in the 1938 aerial, and continuing to the present CPA configuration (as shown in a 1982 photograph). The navigation charts show the depth of the water surrounding the CPA to be roughly 15 to 20 feet. Boring logs show the thickness of the slag fill in the CPA to be 20 to 30 feet.

The northern portion of the Container Terminal Site (within Parcels B10 and B18) was the historic Coke Oven Area (COA). The COA included the former coke ovens and coke batteries, former coke wharfs, former coal tar processing area, the former benzene / light oil processing area, former coal conveyors, and the former biological wastewater treatment plant. A Phase II investigation was previously completed for Parcel B18, with the results summarized in the *Parcel B18 Phase II Investigation Report* (Revision 0, August 3, 2020).

The southern portion of the Container Terminal Site (within Parcels B11 and B12) includes historical bulk storage areas and scrap reclamation areas (Parcel B11) and a portion of the Coke Point Landfill (CPLF; Parcel B12). The portion of Parcel B11 within the Container Terminal Site was A Phase II investigation was previously completed for Parcel B11, with the results summarized in the *Parcel B11 Phase II Investigation Report* (Revision 0, December 22, 2020).

Groundwater in the vicinity of the CPLF is monitored semi-annually, while groundwater within the COA is monitored quarterly. The results from each groundwater sampling event are reported to the MDE within routine monitoring reports.

The COA has several operational interim measure (IM) remediation cells. These operations are discussed in the "Draft Pre-Design Investigation Summary Report" for the Former COA (Key Environmental Inc., dated October 9, 2015). As shown on **Figure 3**, a portion of COA IM Cell 6 and the entirety of Cell 4 and Cell 5 are contained within the boundary of the Site.

The Phase I Environmental Site Assessment prepared by Weaver Boos Consultants dated May 19, 2014, identified the COA and CPLF as Special Study Areas with numerous Findings and Recognized Environmental Conditions.

1.2. OBJECTIVES

The objective of this Phase II Investigation was to characterize the nature and extent of potential contamination or hazardous conditions for future tenants or personnel working on the Site. A summary table of the proposed site investigation locations, including the sample identification numbers and the analyses performed, is provided as **Appendix A**. Throughout the Phase II Investigation, 70 soil samples (from 24 soil boring locations) were collected and analyzed. This report includes a summary of the work performed, including the environmental setting, site investigation methods, analytical results and data usability assessment, and findings and recommendations.

2.0 ENVIRONMENTAL SETTING

2.1. LAND USE AND SURFACE FEATURES

The TPA property consists of the former Sparrows Point steel mill. The CPA has historically hosted numerous plants, shops, offices, batteries, tar storage tanks, and oil tanks throughout the Site.

Ground surface elevations at the Site are generally flat and range from approximately 8 to 14 feet above mean sea level (amsl). There are several stockpiles and geographic prominences, especially towards the south of the Site, but these are generally of limited extent.

According to Figure B-2 of the property Stormwater Pollution Prevention Plan Revision 10 dated July 15, 2023, surface water runoff from the Site flows through gravel filter berms to the east and south, which discharges to the Patapsco.

2.2. REGIONAL GEOLOGY

The Site is located within the Atlantic Coastal Plain Physiographic Province (Coastal Plain). The western boundary of the Coastal Plain is the "Fall Line", which separates the Coastal Plain from the Piedmont Plateau Province. The Fall Line runs from northeast to southwest along the western boundary of the Chesapeake Bay, passing through Elkton (MD), Havre de Grace (MD), Baltimore City (MD), and Laurel (MD). The eastern boundary of the Coastal Plain is the off-shore Continental Shelf.

The unconsolidated sediments beneath the Site belong to the Talbot Formation (Pleistocene), which is then underlain by the Cretaceous formations which comprise the Potomac Group (Patapsco Formation, Arundel Formation, and the Patuxent Formation). The Potomac Group formations are comprised of unconsolidated sediments of varying thicknesses and types, which may be several hundred feet to several thousand feet thick. These unconsolidated formations may overlie deeper Mesozoic and/or Precambrian bedrock. Depth to bedrock is approximately 700 feet within the Site.

2.3. SITE GEOLOGY

The approximate shoreline of the Sparrows Point Peninsula in 1916 is shown in **Figure 2** (adapted from Figure 2-20 in the DCC Report prepared by Rust Environment and Infrastructure dated January 1998). In general, the encountered subsurface geology was comprised of non-native fill materials including slag, concrete, wood, sand, and gravel, as well as natural soils including fine-grained sediments (clays and silts) and coarse-grained sediments (sands). Shallow groundwater was observed in soil borings at varying depths ranging from approximately 5 to 16 feet below ground surface (bgs) across the Site. Soil boring observation logs are provided in **Appendix B**.

3.0 SITE INVESTIGATION

A total of 70 soil samples (from 24 soil boring locations), were collected for analysis as part of this Phase II Investigation.

This Phase II Investigation followed the procedures included in the Quality Assurance Project Plan (QAPP) Revision 4 dated May 31, 2022, which was approved by the Agencies to support the investigation and remediation of the TPA property. Information regarding the project organization, field activities and sampling methods, sampling equipment, sample handling and management procedures, the selected laboratory and analytical methods, quality control and quality assurance procedures, investigation-derived waste (IDW) management methods, and reporting requirements are described in detail in the approved Work Plans and the QAPP.

All site characterization activities were conducted under the property wide TPA Health and Safety Plan.

As previously mentioned, portions of the Site within Parcels B11 and B18 were investigated under separate Phase II Investigations. The *Parcel B11 Phase II Investigation Report* (Revision 0, December 22, 2020) includes information derived from 26 soil borings advanced within or adjacent to the Site boundary. The *Parcel B18 Phase II Investigation Report* (Revision 0, August 3, 2020) includes information derived from 13 soil borings advanced within or adjacent to the Site boundary. Refer to **Appendix C** for a figure showing all completed soil boring locations within the Coke Point Container Terminal Site. Relevant soil boring data will be included in the Coke Point Container Terminal RADWP.

3.1. SAMPLE TARGET IDENTIFICATION

Sampling target locations were identified if the historical drawings depicted industrial activities or a specific feature at a location that may have been a source of environmental contamination. Additional sample locations were distributed to provide complete coverage of the Site and to fill in areas with insufficient coverage. A summary table of the investigation plan, along with the applicable boring identification numbers and the analyses performed, has been provided as **Appendix A**. Note that this investigation does not focus on the portions of the Container Terminal Site within Parcels B11 or B18 because, as noted above, a previous Phase II Investigation was completed for Parcels B11 and B18.

During the completion of fieldwork, it was necessary to shift some borings from the approved locations given in the Work Plan, primarily due to equipment refusal and/or access restrictions. **Table 1** provides the identification numbers of the field adjusted borings, the coordinates of the proposed and final locations, and the distance/direction of the field shifts.

3.2. SOIL INVESTIGATION

Continuous core soil borings were advanced at 24 locations across the Site to assess the presence or absence of soil contamination, and to assess the vertical distribution of any encountered contamination (**Figure 3**). The 24 soil borings were advanced using a sonic rig to a maximum depth of 20 feet bgs, or to 5 feet deeper than observed groundwater, whichever was first. At each of the 24 boring locations, the soil core was visually inspected and screened with a hand-held photoionization detector (PID) prior to logging soil types. Soil boring logs have been included as **Appendix B**, and the PID calibration log has been included as **Appendix D**.

In each boring, one shallow sample was collected from the 0 to 1-foot depth interval in accordance with the approved Work Plan. An underlying sample was collected from the 4- to 5-foot depth interval from each continuous core soil boring but could be adjusted based on field observations. If the PID or other field observations indicated contamination to exist at a depth greater than 3 feet bgs but less than 9 feet bgs, and above the water table, the sample from the deeper 4- to 5-foot interval was shifted to the alternate depth interval. One additional sample was collected from the 9- to 10-foot depth interval if groundwater had not been encountered. The 10-foot bgs samples were held by the laboratory prior to analysis in accordance with the requirements given in the Work Plan. These project-specific requirements for the analysis of 10-foot bgs samples are further described below. It should be noted that soil samples were not collected from a depth that was below the water table. Shallow groundwater was observed in soil cores at depths as shallow as 5 feet (in CT-001-SB).

Soil sampling activities were conducted in accordance with the procedures and methods referenced in **Field Standard Operating Procedure (SOP) Numbers 008, 009, 012, and 013** provided in Appendix A of the QAPP. Sample containers, preservatives, and holding times for the sample analyses are listed in the QAPP Worksheet 19 & 30 – Sample Containers, Preservation, and Holding Times. Down-hole soil sampling equipment was decontaminated after soil sampling had been concluded at each location, according to the procedures and methods referenced in **Field SOP Number 016** provided in Appendix A of the QAPP.

Each soil sample collected during this investigation was submitted to Alpha Analytical Services, Inc. for analysis. The 10-foot bgs samples were held prior to analysis in accordance with the Work Plan requirements. Excluding these deep samples, the remaining soil samples were analyzed for Target Compound List (TCL) semi-volatile organic compounds (SVOCs) and polynuclear aromatic hydrocarbons (PAHs) via USEPA Methods 8270 and 8270 SIM, Oil & Grease via USEPA Method 9071, total petroleum hydrocarbon (TPH) diesel range organics (DRO) and gasoline range organics (GRO) via USEPA Method 8015, Target Analyte List (TAL) Metals via USEPA Methods 3050, Mercury via USEPA Method 7471, hexavalent chromium via USEPA Method 7196, and cyanide via USEPA Method 9012. The shallow soil samples collected across the Site from the 0- to 1-foot bgs interval were also analyzed for polychlorinated biphenyls (PCBs)

via USEPA Method 8082. Samples from any depth interval with a sustained PID reading of greater than 10 parts per million (ppm) were also analyzed for TCL volatile organic compounds (VOCs) via USEPA Method 8260.

If the PID reading from the deep (9- to 10-foot bgs) sampling interval was less than 10 ppm, all parameters were held by the laboratory pending the analysis of the overlying samples. If the deep sampling interval exhibited a sustained PID reading of 10 ppm or greater, the sample was released to be analyzed for VOCs, SVOCs, TPH-DRO, TPH-GRO, and Oil & Grease. However, the samples for metals and cyanide were still held by the laboratory pending the analysis of the overlying samples. If the preliminary laboratory results from the 4- to 5-foot bgs (or field adjusted) interval indicated exceedances of the Project Action Limits (PALs) for any constituents, the held sample from the deep interval was then released to be analyzed for those constituents that exhibited PAL exceedances in the overlying sample.

3.3. Management of Investigation-Derived Waste

IDW generated during this Phase II Investigation was containerized in 55-gallon (DOT-UN1A2) drums. Following the completion of field activities, a composite sample was gathered from the Phase II IDW soil drums and submitted for waste characterization analysis. Based on this analysis, the waste soil was characterized as non-hazardous and is suitable for disposal at Greys Landfill. A list of all results from the soil waste characterization procedure can be found in **Table 2**.

4.0 ANALYTICAL RESULTS

4.1. SOIL CONDITIONS

Soil analytical results were screened against PALs established in the property wide QAPP (or other direct guidance from the Agencies; i.e., TPH/Oil & Grease) to determine PAL exceedances. PALs are generally based on the USEPA's Regional Screening Levels (RSLs) for the Composite Worker exposure to soil. RSLs for cadmium and chromium have been updated recently and therefore the PALs for these constituents have also been updated. These updates have not yet been reflected in the QAPP. The Composite Worker is defined by the USEPA as a long-term receptor exposed during the workday who is a full-time employee that spends most of the workday conducting maintenance activities (which typically involve on-site exposures to surface soils) outdoors.

The analytical results for the detected soil parameters are summarized and compared to the PALs in **Table 3** (Organics) and **Table 4** (Inorganics). The laboratory Certificates of Analysis (including Chains of Custody) and Data Validation Reports (DVRs) have been included as electronic attachments. The DVRs contain a glossary of qualifiers for the final flags assigned to results in the attached summary tables.

4.1.1. Soil Conditions: Organic Compounds

Table 3 provides a summary of VOCs detected above the laboratory's reporting limits (RLs) in the soil samples collected as part of this investigation. Samples were only analyzed if PID readings exceeded 10 ppm at the soil boring location. Two VOCs (benzene and ethylbenzene) were detected above their respective PALs in multiple soil samples. Benzene was detected above (or equal to) its PAL of 5.1 milligrams per kilogram (mg/kg) in four of the 39 samples where it was analyzed, and ethylbenzene was detected above its PAL of 25 mg/kg in two of the 39 samples where it was analyzed. The maximum detections of benzene (17 mg/kg) and ethylbenzene (340 mg/kg) were both observed in CT-006-SB-6. The VOC PAL exceedances are shown on **Figure 4**.

Table 3 provides a summary of SVOCs detected above the laboratory's RLs in the soil samples as part of this investigation. There were a total of six SVOCs (benz[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, dibenz[a,h]anthracene, indeno[1,2,3-c,d]pyrene, and naphthalene) detected above their respective PALs. Soil sample CT-007-SB-3 had the highest concentrations for all six: benz[a]anthracene (820 mg/kg), benzo[a]pyrene (460 mg/kg), benzo[b]fluoranthene (490 mg/kg), dibenz[a,h]anthracene (58 mg/kg), indeno[1,2,3-c,d]pyrene (310 mg/kg), and naphthalene (3,200 mg/kg). The SVOC PAL exceedances are shown on **Figure 5**.

Shallow soil samples collected across the Site from the 0- to 1-foot bgs interval were analyzed for PCBs. **Table 3** provides a summary of PCBs detected above the laboratory's RLs. The PAL for total PCBs (0.97 mg/kg) was exceeded at one location (CT-010-SB-1), with a concentration of

1.05 mg/kg. There were no other PCBs detected above their PALs. The PCB PAL exceedance is shown on **Figure 6**.

Table 3 provides a summary of the TPH/Oil & Grease detections above the laboratory's RLs in the soil samples collected from across the Site. There were no PAL exceedances of TPH-GRO, however multiple samples showed TPH-DRO and Oil & Grease exceedances. The maximum concentrations for both TPH-DRO (26,000 mg/kg) and Oil & Grease (36,200 mg/kg) were both observed at CT-007-SB-3. The TPH/Oil & Grease PAL exceedances are shown on **Figure 7**.

4.1.2. Soil Conditions: Inorganic Constituents

Table 4 provides a summary of inorganic constituents detected above the laboratory's RLs in the soil samples collected from across the Site. Six inorganic constituents (arsenic, hexavalent chromium, lead, manganese, thallium, and vanadium) were detected above their respective PALs. Arsenic was detected above (or equal to) its PAL of 3 mg/kg in 48 of the 67 samples where it was analyzed, with a maximum detection of 21.7 mg/kg in CT-003-SB-10. The maximum detection of hexavalent chromium was observed at CT-021-SB-8, with a value of 16.2 mg/kg. The maximum detection of lead was observed at CT-015-SB-1, with a value of 2,600 mg/kg. The maximum detection of manganese was observed at CT-021-SB-10, with a value of 46,100 mg/kg. The maximum detection of thallium was observed at CT-024-SB-9, with a value of 15.7 mg/kg. The maximum detection of vanadium was observed at CT-008-SB-3, with a value of 5,860 mg/kg. The inorganic PAL exceedances are shown on **Figure 8**.

4.1.3. Soil Conditions: NAPL Observations

Physical evidence of non-aqueous phase liquid (NAPL) was observed in six soil cores (CT-004-SB, CT-006-SB, CT-007-SB, CT-010-SB, CT-017-SB, and CT-018-SB) completed during this investigation. On October 26, and October 27, 2023, three NAPL screening piezometers with screened intervals from 10 to 20 feet bgs were installed as CT-007-PZ, CT-010-PZ, and CT-017-PZ, as shown on **Figure 9**. Note that piezometers were not installed at CT-004-SB and CT-006-SB due to rig refusal, but were addressed subsequently via test pitting, which is discussed separately in a forthcoming report. Additionally, a piezometer was not installed at CT-018-SB because dense NAPL observed in the soil boring was likely associated with Cell 4. The three screening piezometers were then checked for the potential presence of NAPL using an oil-water interface probe. NAPL was not observed in any of the piezometers during the 0-hr, 48-hr, 7-day, or 30-day gauging events, and the piezometers were abandoned on November 30, 2023, with Agency approval. Additional NAPL delineation activities via test pitting are ongoing in the area and are summarized in separate reports.

4.1.4. Soil Conditions: Results Summary

Table 3 and **Table 4** provide summaries of the detected organic and inorganics compounds in the soil samples submitted for laboratory analysis, while **Figure 4** through **Figure 8** present the soil sample results that exceeded the PALs. PAL exceedances in soil were limited to two VOCs (benzene and ethylbenzene), six SVOCs (benz[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, dibenz[a,h]anthracene, indeno[1,2,3-c,d]pyrene, and naphthalene), six inorganics (arsenic, hexavalent chromium, lead, manganese, thallium, and vanadium), one PCB mixture, TPH-DRO, and Oil & Grease.

Lead, PCBs, and TPH/Oil & Grease are subject to special requirements as designated by the Agencies: lead results above 10,000 mg/kg are subject to additional delineation (and possible excavation), PCB results above 50 mg/kg are subject to delineation and excavation, and TPH/Oil & Grease results above 6,200 mg/kg should be evaluated for the potential presence and mobility of NAPL in any future development planning:

- There were no locations where detections of lead exceeded 10,000 mg/kg.
- There were no locations where detections of PCBs exceeded 50 mg/kg.
- Locations where NAPL was observed in the soil core (CT-004-SB, CT-006-SB, CT-007-SB, CT-010-SB, CT-017-SB, and CT-018-SB) were evaluated for installing a temporary NAPL piezometer or test pit for further NAPL observations. Temporary NAPL piezometers were installed at CT-007-PZ, CT-010-PZ, and CT-017-PZ and test pits were completed at CT-004-SB and CT-006-SB. NAPL was not identified in any of the NAPL piezometers or in test pit CT-004-TP; NAPL was observed in test pit CT-006-TP and is being removed. Details regarding these test pits are covered under a separate submittal.

4.2. Soil Conditions within the Entire Container Terminal Site

As previously mentioned, portions of the Site within Parcels B11 and B18 were investigated under separate Phase II Investigations. Refer to **Appendix C** for figures showing all soil PAL exceedances for VOCs, SVOCs, TPH, and inorganics within the Container Terminal Site.

5.0 DATA USABILITY ASSESSMENT

The approved property wide QAPP specified a process for evaluating data usability in the context of meeting project goals. Specifically, the goal of the Phase II Investigation is to determine if potentially hazardous substances or petroleum products (VOCs, SVOCs, PCBs, metals, cyanide, or TPH/Oil & Grease) are present in Site media (soils) at concentrations that could pose an unacceptable risk to Site receptors. Individual results are compared to the PALs established in the QAPP (i.e., the USEPA RSLs), or based on other direct guidance from the Agencies, to identify the presence of PAL exceedances in each environmental medium.

Quality assurance and quality control (QA/QC) samples were collected during the field studies to evaluate field/laboratory variability. A summary of QA/QC samples associated with this investigation has been included as **Appendix E**. The following QA/QC samples were required by the QAPP to support the data validation:

- Trip Blank – at a rate of one per cooler with VOC samples per day
  - Soil/Sediment – VOCs only
  - Water – VOCs only
- Blind Field Duplicate – at a rate of one per twenty samples
  - Soil/Sediment – VOCs, SVOCs, Metals, TPH-DRO, TPH-GRO, Oil & Grease, PCBs, hexavalent chromium, and cyanide
  - Water – VOCs, SVOCs, Metals, TPH-DRO, TPH-GRO, Oil & Grease, hexavalent chromium, and cyanide
- Matrix Spike/Matrix Spike Duplicate – at a rate of one per twenty samples
  - Soil/Sediment – VOCs, SVOCs, Metals, TPH-DRO, TPH-GRO, Oil & Grease, PCBs, and hexavalent chromium
  - Water – VOCs, SVOCs, Metals, TPH-DRO, TPH-GRO, Oil & Grease, and hexavalent chromium
- Field Blank and Equipment Blank – at a rate of one per twenty samples
  - Soil/Sediment – VOCs, SVOCs, Metals, TPH-DRO, TPH-GRO, Oil & Grease, hexavalent chromium, and cyanide
  - Water – VOCs, SVOCs, Metals, TPH-DRO, TPH-GRO, Oil & Grease, hexavalent chromium, and cyanide

The QA/QC samples were collected and analyzed in accordance with the QAPP Worksheet 12 – Measurement Performance Criteria, QAPP Worksheet 20 – Field Quality Control, and QAPP Worksheet 28 – Analytical Quality Control and Corrective Action.

5.1. DATA VERIFICATION

A verification review was performed on documentation generated during sample collection and analysis. The verification included a review of field logbooks, field data sheets, and Chains of Custody to ensure that all planned samples were collected, and to ensure consistency with the field methods and decontamination procedures specified in the QAPP Worksheet 21 – Field SOPs and Appendix A of the QAPP. In addition, calibration logs were reviewed to ensure that field equipment was calibrated at the beginning of each day and re-checked as needed. The logs have been provided in **Appendix D** (PID calibration log).

The laboratory deliverables were reviewed to ensure that all records specified in the QAPP as well as necessary signatures and dates are present. Sample receipt records were reviewed to ensure that the sample condition upon receipt was noted, and any missing/broken sample containers (if any) were noted and reported according to plan. The data packages were compared to the Chains of Custody to verify that results were provided for all collected samples. The data package case narratives were reviewed to ensure that all exceptions (if any) are described.

5.2. DATA VALIDATION

USEPA Stage 2B data validation was completed for a representative 30% (minimum) of the environmental sample analyses performed by Alpha Analytical Services, Inc. and supporting Level IV Data Package information by Environmental Data Quality Inc. (EDQI). The DVRs provided by EDQI have been included as electronic attachments.

Sample analyses have undergone an analytical quality assurance review to ensure adherence to the required protocols. The Stage 2B review was performed as outlined in "Guide for Labeling Externally Validated Laboratory Analytical Data for Superfund Use", EPA-540-R-08-005. Results have been validated or qualified according to general guidance provided in "USEPA National Functional Guidelines for Inorganic Superfund Data Review (ISM02.1)", USEPA October 2013. Region III references this guidance for validation requirements. This document specifies procedures for validating data generated for Contract Laboratory Program (CLP) analyses. The approved property wide QAPP dated April 5, 2016, and the quality control requirements specified in the methods and associated acceptance criteria were also used to evaluate the non-CLP data.

The Alpha Analytical Services, Inc. laboratory facility implements quality assurance and reporting requirements through the TNI certification program with the State of Pennsylvania, which is accepted by Maryland. Since late January 2017, these requirements include the flagging of contaminants with a "B" qualifier when an analyte is detected in an associated laboratory method blank, regardless of the level of the contaminant detected in the sample. A method blank is analyzed at a rate of one blank for each 20 sample analytical batch. The USEPA has previously specified that results flagged with the "B" qualifier do not represent legitimate detections. They

have also specified that results flagged with a "JB" qualifier are invalid, and any such results should be revised to display the "B" qualifier only.

Although elevated sample results may be "B" qualified by the laboratory as non-detects (due to low-level blank detections), EDQI corrects any erroneous "B" qualifiers during the data validation procedure to avoid under-reporting analytical detections. EDQI removes the "B" qualifiers for relevant samples according to the guidance given in the table below. Therefore, a result originally flagged with a "B" qualifier in the laboratory certificate may be reported as a legitimate detection without this qualifier. Likewise, a result originally flagged with a "JB" qualifier in the laboratory certificate may be reported as a "J" qualifier if the erroneous "B" qualifier can be eliminated but would be reported as a "B" qualified non-detect result if the original "B" qualifier is legitimate.

Blank Result	Sample Result	Qualifying Action
Result less than RL	Result less than RL	Result is Qualified "B"
	Result greater than RL	Remove "B"
Result greater than RL	Result less than Blank Result	Result is Qualified "B"
	Result greater than Blank Result	Remove "B"

RL = Reporting Limit

As directed by EDQI, ARM has reviewed all non-validated laboratory reports (those which were not designated to be reviewed by EDQI) and applied the same validation corrections to any relevant "B" or "JB" qualified results. This review of the non-validated data ensures that any elevated detections of parameters, including those which may exceed the PALs, are not mistakenly reported as non-detect values simply because they did not undergo the formal validation procedure by EDQI. ARM has also revised the non-validated results to eliminate any laboratory-specific, non-standardized qualifiers (L2, 6c, ip, 4c, etc.), which are customarily removed by EDQI during the validation procedure.

5.3. DATA USABILITY

The data were evaluated with respect to the quality control elements of precision, bias, representativeness, comparability, completeness, and sensitivity relative to data quality indicators and performance measurement criteria outlined in QAPP Worksheet 12 – Measurement Performance Criteria. The following discussion details deviation from the performance measurement criteria, and the impact on data quality and usability.

The measurement performance criteria of precision and bias were evaluated in the data validation process as described in the DVRs provided as electronic attachments. Where appropriate, potential limitations in the results have been indicated through final data flags. These flags indicate whether

particular data points were quantitative estimates, biased high/low, associated with blank contamination, etc. Individual data flags are provided with the results in the detection summary tables. A qualifier code glossary is included with the DVRs provided by EDQI. Particular results may have been marked with the "R" flag if the result was deemed to be unreliable and was not included in any further data evaluation. The analytical soil results that were rejected during data validation are provided in **Table 5**. A discussion of data completeness (the proportion of valid data) is included below.

Representativeness is a measure of how accurately and precisely the data describe the Site conditions. Representativeness of the samples submitted for analysis was ensured by adherence to standard sampling techniques and protocols, as well as appropriate sample preservation prior to analysis. The sampling was conducted in accordance with the QAPP Worksheet 21 – Field SOPs and Appendix A of the QAPP. Specific Field SOPs applicable to the assessment of representativeness include **Field SOP Numbers 003, 006, 008, 009, 010, 011, 017, and 024**. Review of the field notes and laboratory sample receipt records indicated that sample collection at the Site was representative, with no significant deviations from the SOPs.

Comparability describes the degree of confidence in comparing two sets of data. Comparability is maintained across multiple datasets by the use of consistent sampling and analytical methods across multiple project phases. Comparability of sample results was ensured through the use of approved standard sampling and analysis methods outlined in the QAPP. QA/QC protocols help to maintain the comparability of datasets, and in this case were assessed via blind duplicates, blank samples, and spiked samples, where applicable. Any significant deviations from the QAPP are noted in the DVRs.

Sensitivity is a determination of whether the analytical methods and quantitation limits will satisfy the requirements of the project. The laboratory reports were reviewed to verify that reporting limits met the quantitation limits for specific analytes provided in QAPP Worksheet #15 – Project Action Limits and Laboratory-Specific Detection/Quantitation Limits. In general, the laboratory reporting limits met the detection and quantitation limits specified in the QAPP.

Completeness is expressed as a ratio of the number of valid data points to the total number of analytical data results. Non-usable ("R" flagged) data results were determined through the data validation process. The approved QAPP specifies that the completeness of data is assessed by professional judgement but should be greater than or equal to 90%. Data completeness for each compound is provided in **Appendix F**. This evaluation of completeness includes only the representative 30% (minimum) of sample results which were randomly selected for validation.

A total of 12 analytes had completeness ratios less than 90% (1,4-dioxane, 2,3,4,6-tetrachlorophenol, 2,4,5-trichlorophenol, 2,4,6-trichlorophenol, 2,4-dichlorophenol, 2,4-dimethylphenol, 2,4-dinitrophenol, 2-chlorophenol, 2-methylphenol, 3&4-nethylphenol (m&p Cresol), pentachlorophenol, and phenol). None of these parameters had PAL exceedances in any

samples collected across the Site. Overall, the soil data can be used as intended, and no significant data gaps were identified.

6.0 FINDINGS AND RECOMMENDATIONS

The objective of the Container Terminal Phase II Investigation was to characterize the nature and extent of contamination at the Site. During the Phase II Investigation, a total of 70 soil samples (from 24 soil boring locations) were collected for analysis. The sampling and analysis plan for the parcel was developed to target specific features that represented a potential release of hazardous substances and/or petroleum products to the environment, as well as providing general site coverage.

Soil samples were analyzed for VOCs, SVOCs, TPH-DRO/GRO, Oil & Grease, TAL-Metals, hexavalent chromium, cyanide, and PCBs, in accordance with the requirements of the project-specific soil sampling plan.

6.1. SOIL

The concentrations of constituents in the soil have been characterized by the Phase II Investigation to provide estimates of exposure point concentrations to support risk assessment.

PCB concentrations are below levels that would warrant delineation and evaluation of a removal remedy (50 mg/kg). Additionally, lead concentrations were below the mandatory delineation threshold (10,000 mg/kg). No further action is required with respect to PCBs or lead at the Site.

PAL exceedances in soil within the Site were limited to two VOCs (benzene and ethylbenzene), six SVOCs (benz[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, dibenz[a,h]anthracene, indeno[1,2,3-c,d]pyrene, and naphthalene), six inorganics (arsenic, hexavalent chromium, lead, manganese, thallium, and vanadium), one PCB mixture, TPH-DRO, and Oil & Grease. Additionally, NAPL was observed in six soil cores CT-004-SB, CT-006-SB, CT-007-SB, CT-010-SB, CT-017-SB, and CT-018-SB. NAPL was not identified in the temporary NAPL piezometers installed at a subset of these locations (CT-007-PZ, CT-010-PZ, and CT-017-PZ), or in the test pit installed at CT-004-SB. NAPL was identified in the test pit installed at CT-006-SB; NAPL removal is ongoing and the results will be included in a separate submittal.

6.2. RECOMMENDATIONS

Phase II Invetigation data has been collected to evaluate the nature and extent of possible constituents of concern within the Container Terminal. Recommendations for the Site are as follows:

- The borings with elevated concentrations of TPH-DRO, Oil & Grease, and/or observations of NAPL (CT-003-SB, CT-004-SB, CT-006-SB, CT-007-SB, CT-010-SB, CT-017-SB, and CT-018-SB) should be considered for proximity to proposed utilities in any future development plans. If future utilities are proposed in the vicinity of these borings,

appropriate protocols for the mitigation of potential product (NAPL) mobility should be specified in a project-specific RADWP.

- A hot spot excavation was proposed to remove the shallow impacted soil at CT-007-SB. The removal of this material and subsequent confirmatory sampling will mitigate risks for the future Composite Worker. Details about the completed hotspot excavation were included in the *Coke Point Container Terminal Interim Status Update* (January 4, 2024).
- NAPL gauging / removal (if needed) will continue at CT-006-TP, with details included in the *Coke Point Container Terminal Interim Status Update* (January 4, 2024) and other subsequent reports. NAPL delineation in the vicinity of CT-006-TP is also recommended, to include additional test pits to the west and east of CT-006-TP. Results will be included in a separate submittal.

7.0 REFERENCES

ARM Group LLC (2023). *Phase II Investigation Work Plan – Coke Point Container Terminal.* Revision 0. September 14, 2023.

ARM Group LLC (2023). *Comment Response Letter for the Phase II Investigation Work Plan – Coke Point Container Terminal.* Revision 0. November 16, 2023.

ARM Group LLC (2022). *Quality Assurance Project Plan – Sparrows Point Terminal Site*. Revision 4. May 31, 2022.

ARM Group LLC (2023). *Stormwater Pollution Prevention Plan*. Revision 10. July 15, 2023.

Rust Environment and Infrastructure (1998). *Description of Current Conditions: Bethlehem Steel Corporation*. Final Draft. January 1998.

Weaver Boos Consultants (2014). *Phase I Environmental Site Assessment: Former RG Steel Facility*. Final Draft. May 19, 2014.

FIGURES

LEGEND

- Container Terminal LOD
- Site Boundary
- Parcel Boundaries
- Private Property

Parcel A9
Parcel A5
Parcel A13
Parcel A7
Parcel A14
Parcel A11
Parcel A8
Parcel A12
Parcel A2
Parcel A15
Parcel A17
Parcel A18
Parcel A6
Parcel A4
Parcel A3
Parcel A1
Parcel A10
Parcel B6
Parcel B8
Parcel B14
Parcel B22
Parcel B16
Parcel B21
Parcel B24
Parcel B15
Parcel B23
Parcel B25
Parcel B7
Parcel B1
Parcel B2
Parcel B3
Parcel B17
Parcel B19
Parcel B4
Parcel B5
Parcel B9
Parcel B18
Parcel B10
Parcel B13
Parcel B20
Parcel B11
Parcel B12

Tradepoint Atlantic Property
Area A and Area B Parcels
December 13, 2023

Figure
1

ARM Group LLC
Engineers and Scientists

0 500 1,000 2,000 Feet

Tradepoint Atlantic
Sparrows Point
Baltimore County, MD
ARM Project 21010210

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Site Boundary
Parcel Boundaries
1916 Shoreline:
Land
Marsh
Water

Parcel A9
Parcel A5
Parcel A13
Parcel A7
Parcel A14
Greys Creek
Bear Creek
Parcel A11
Parcel A8
Parcel A12
Parcel A2
Parcel A15
Parcel A17
Parcel A18
Parcel A16
Parcel A6
Parcel A3
Parcel A4
Parcel A10
Parcel A1
Parcel B6
Humphrey Creek
Parcel B8
Parcel B14
Parcel B21
Parcel B22
Parcel B16
Parcel B15
Parcel B24
Parcel B23
Parcel B25
Old Road Bay
Block House Cove
Parcel B7
Jones Creek
Parcel B1
Parcel B2
Parcel B3
Parcel B17
Parcel B19
Parcel B4
Parcel B5
Parcel B9
Parcel B18
Parcel B10
Parcel B13
Parcel B20
Parcel B11
Parcel B12
Patapsco River

Approximate Shoreline 1916

April 20, 2023

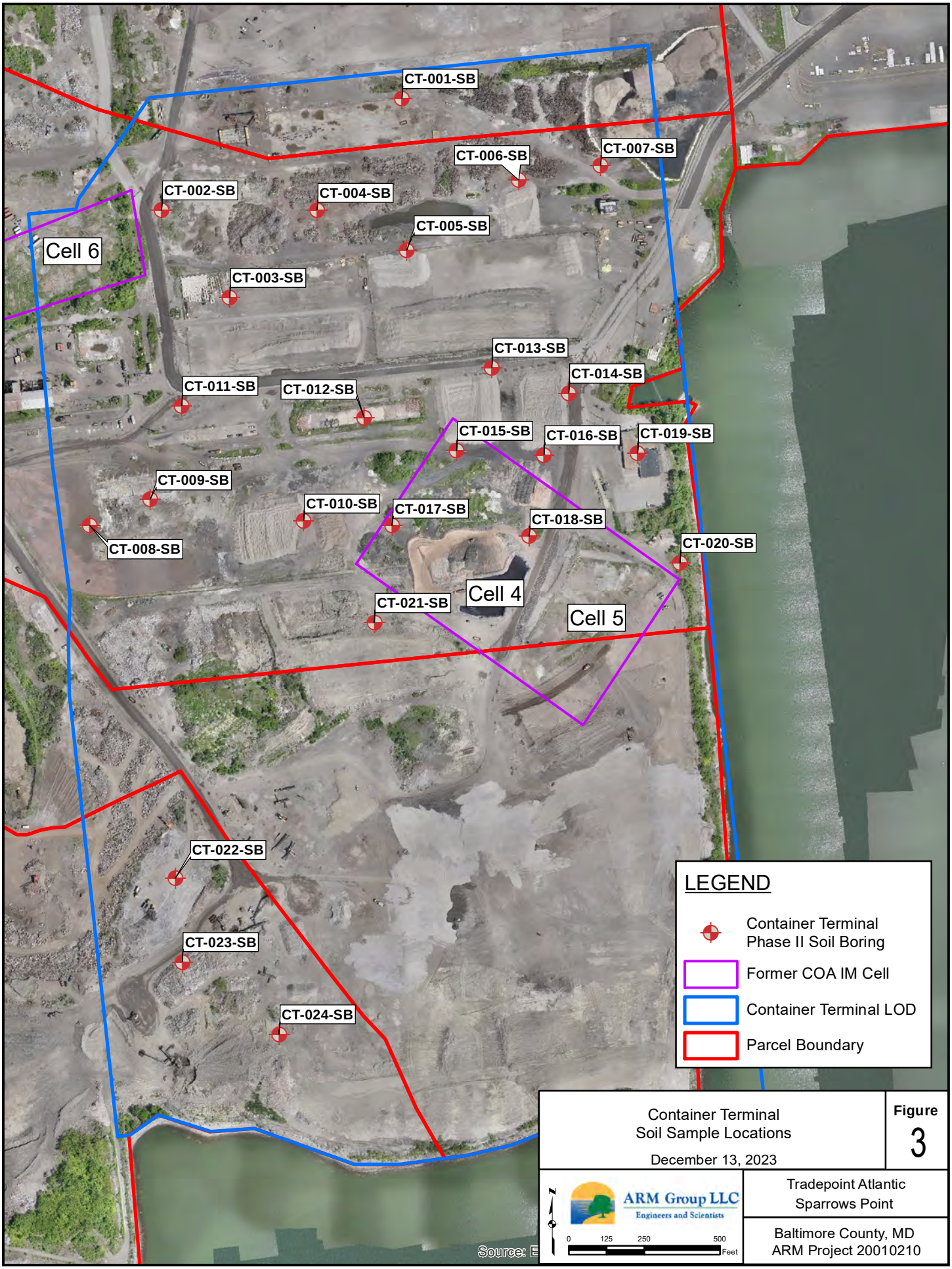
Adapted from Figure 2-20 of the Description of Current Conditions Report prepared by Rust Environmental and Infrastructure, dated January 1998

Figure 2

ARM Group LLC
Engineers and Scientists

0 500 1,000 2,000 Feet

Tradepoint Atlantic
Sparrows Point
Baltimore County, MD
Area A: Project 210101
Area B: Project 210102


CT-001-SB
CT-002-SB
CT-003-SB
CT-004-SB
CT-005-SB
CT-006-SB
CT-007-SB
CT-008-SB
CT-009-SB
CT-010-SB
CT-011-SB
CT-012-SB
CT-013-SB
CT-014-SB
CT-015-SB
CT-016-SB
CT-017-SB
CT-018-SB
CT-019-SB
CT-020-SB
CT-021-SB
CT-022-SB
CT-023-SB
CT-024-SB
Cell 4
Cell 5
Cell 6
LEGEND
Container Terminal Phase II Soil Boring
Former COA IM Cell
Container Terminal LOD
Parcel Boundary
Container Terminal
Soil Sample Locations
December 13, 2023
Figure
3
ARM Group LLC
Engineers and Scientists
0 125 250 500
Feet
Tradepoint Atlantic
Sparrows Point
Baltimore County, MD
ARM Project 20010210
Source: E
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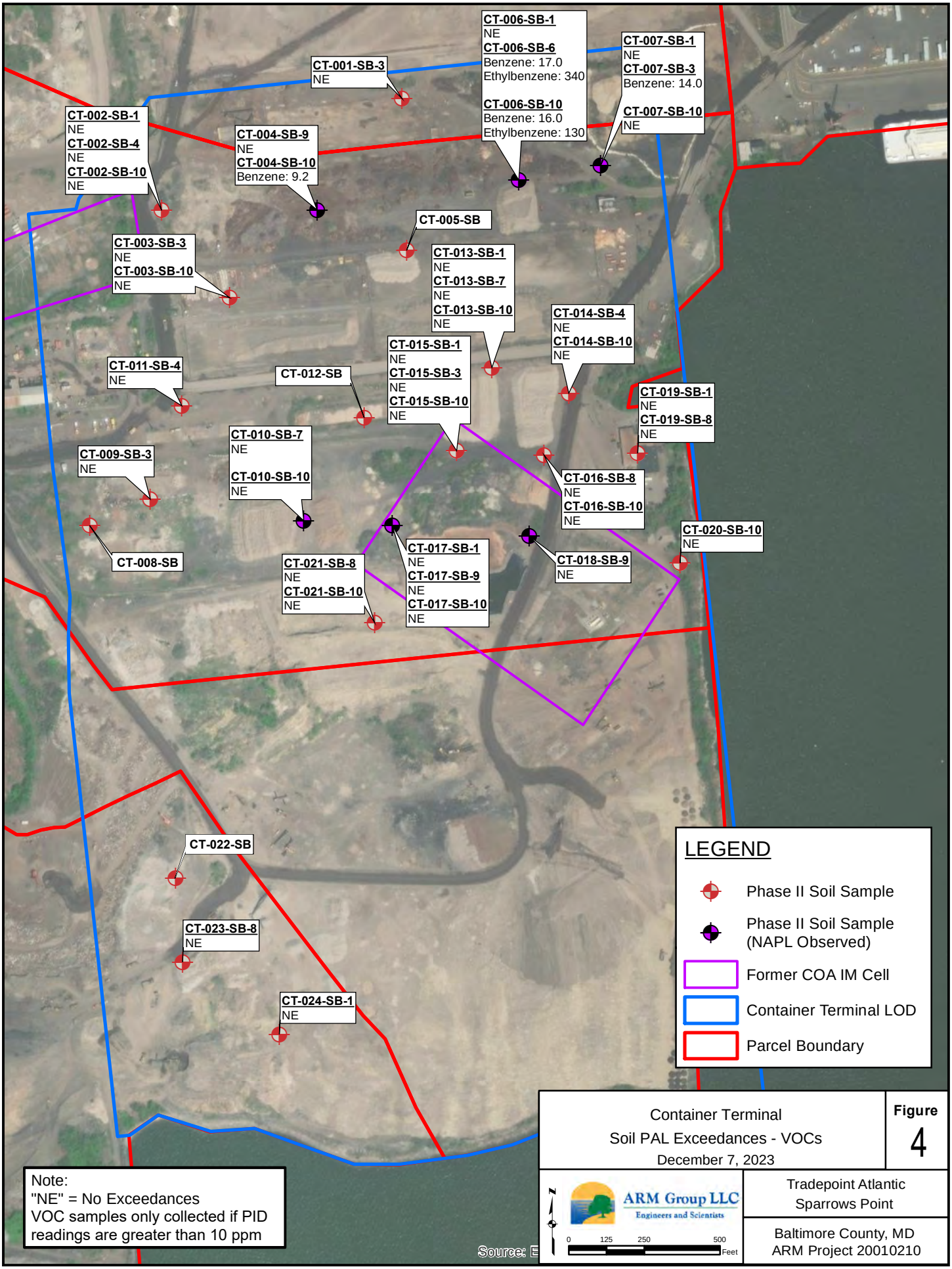

Note:
"NE" = No Exceedances
VOC samples only collected if PID readings are greater than 10 ppm

Container Terminal
Soil PAL Exceedances - VOCs
December 7, 2023

Figure
4

ARM Group LLC
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Tradepoint Atlantic
Sparrows Point

Baltimore County, MD
ARM Project 20010210

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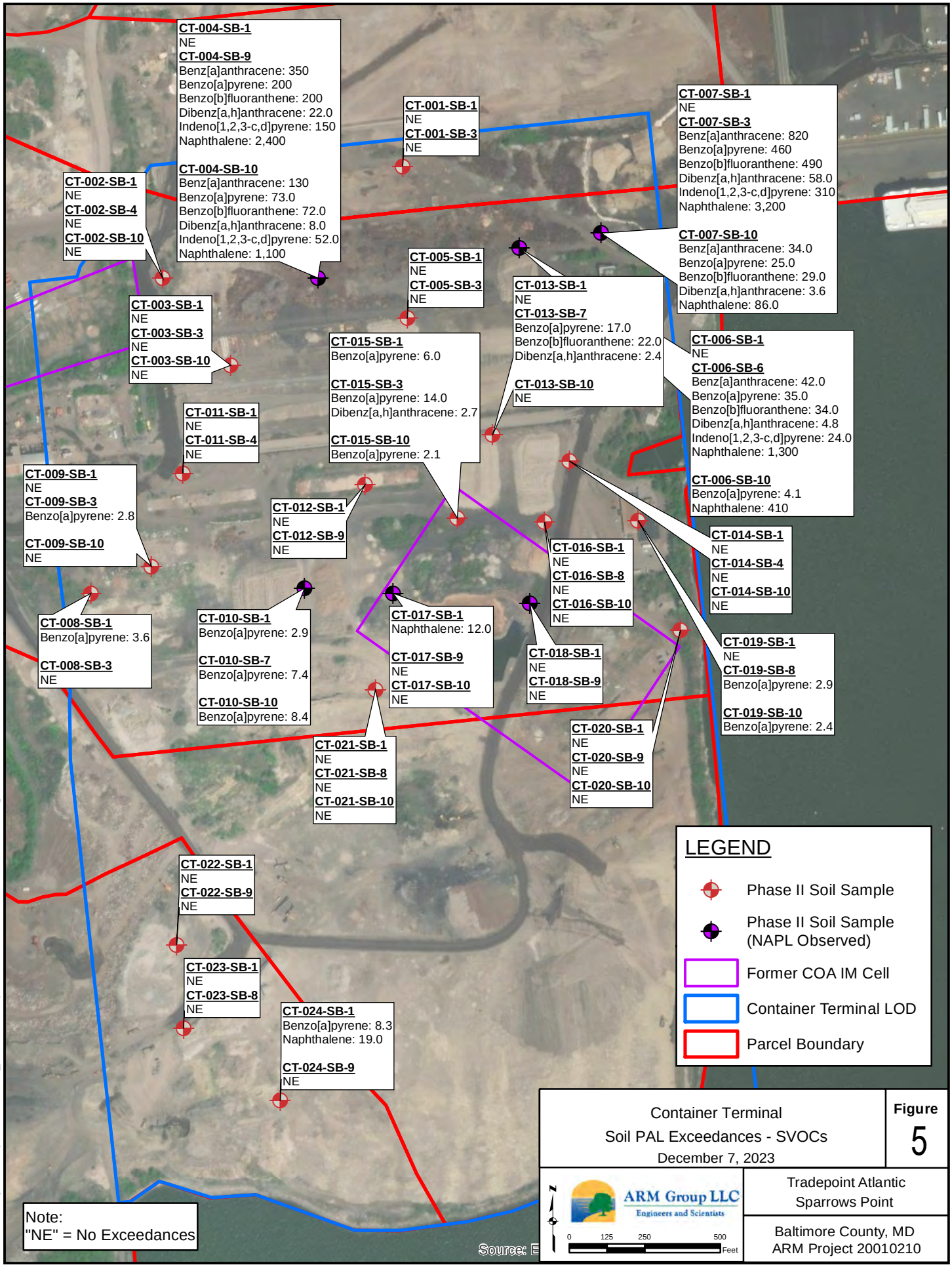

Container Terminal
Soil PAL Exceedances - SVOCs
December 7, 2023

Figure 5

ARM Group LLC
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Tradepoint Atlantic
Sparrows Point

Baltimore County, MD
ARM Project 20010210

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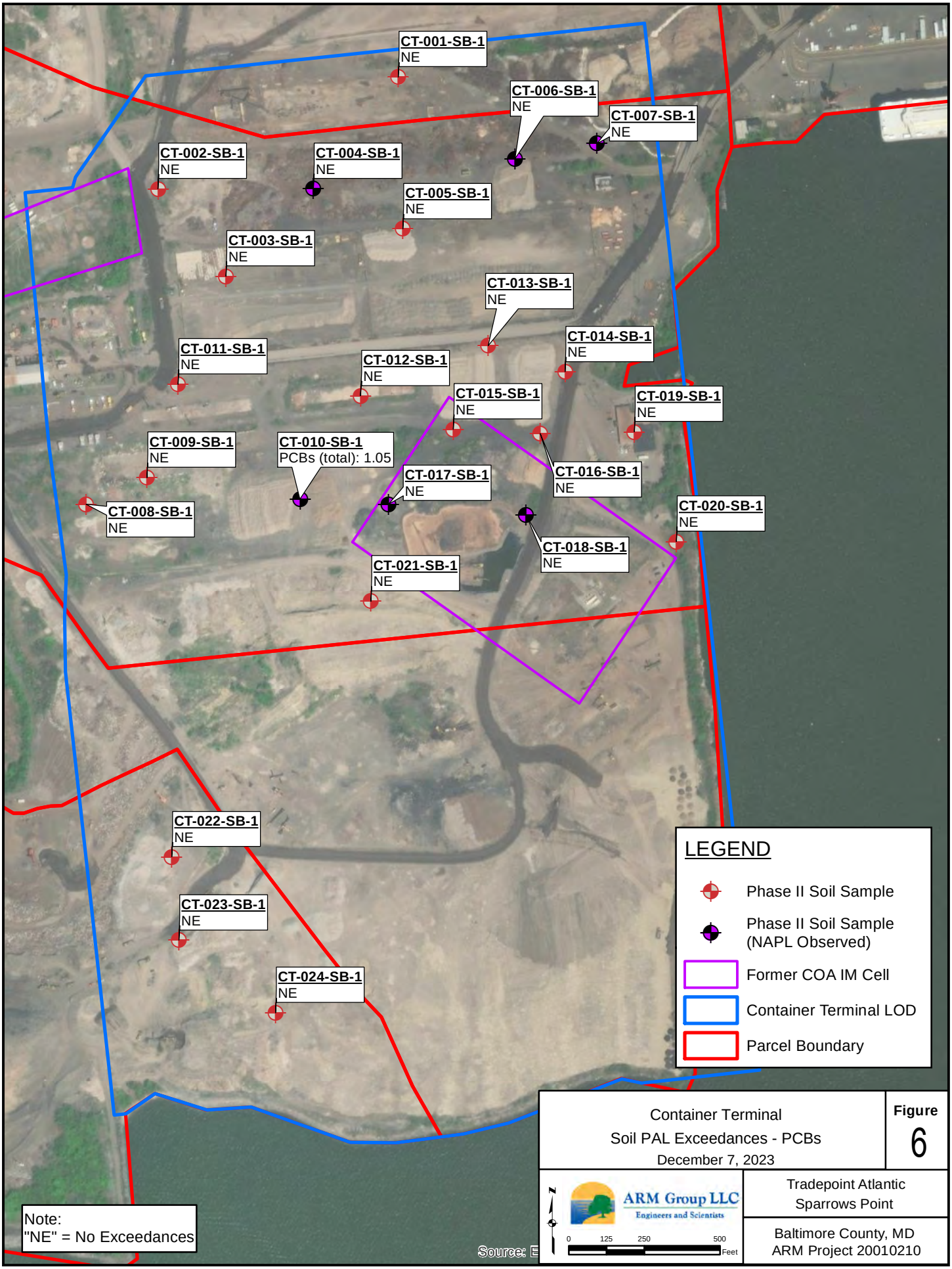

Container Terminal
Soil PAL Exceedances - PCBs
December 7, 2023

Figure
6

ARM Group LLC
Engineers and Scientists

Tradepoint Atlantic
Sparrows Point

Baltimore County, MD
ARM Project 20010210

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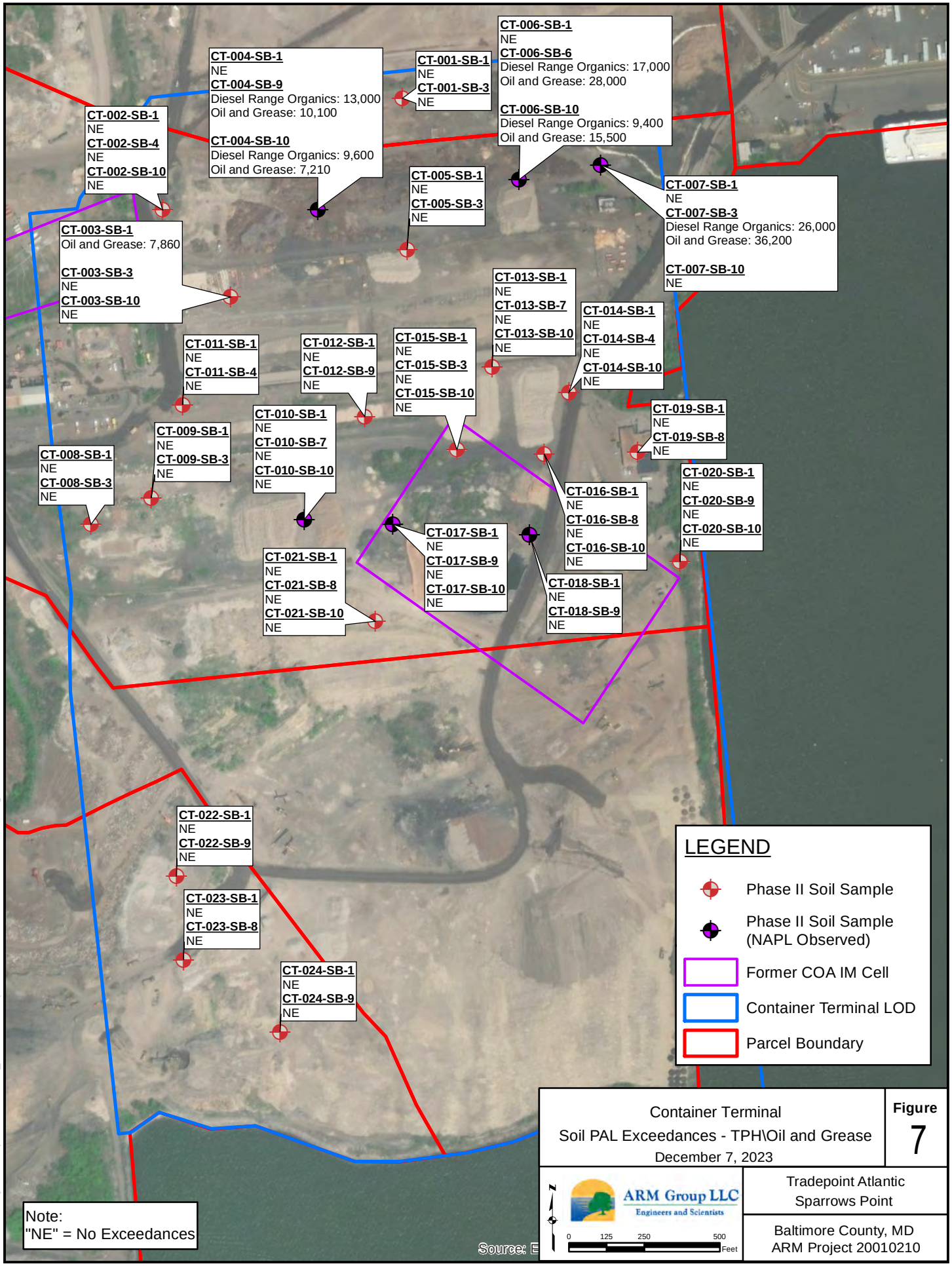

Container Terminal
Soil PAL Exceedances - TPH\Oil and Grease
December 7, 2023

Figure 7

ARM Group LLC
Engineers and Scientists

Tradepoint Atlantic
Sparrows Point

Baltimore County, MD
ARM Project 20010210

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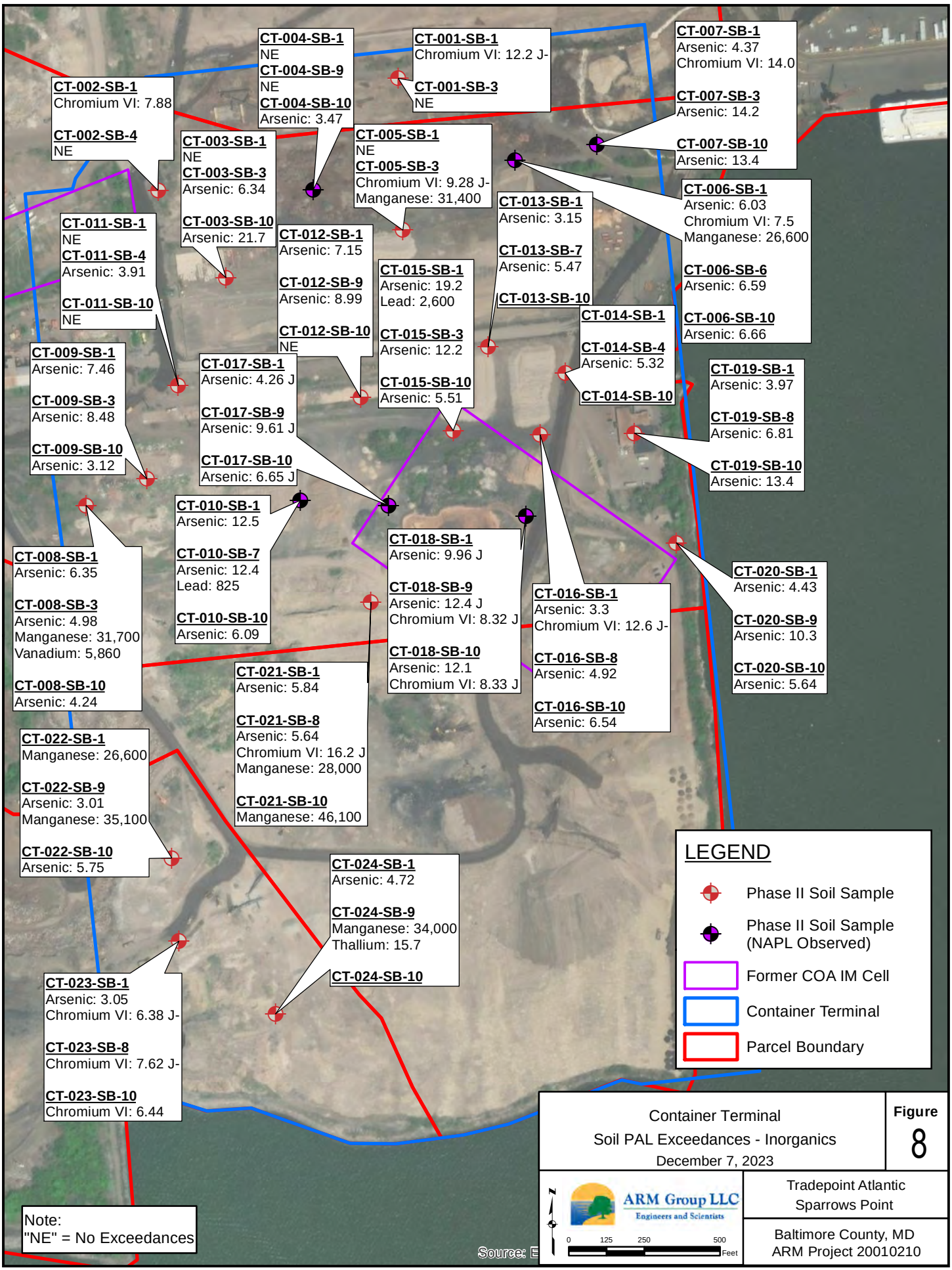

Container Terminal
Soil PAL Exceedances - Inorganics
December 7, 2023

Figure 8

ARM Group LLC
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Tradepoint Atlantic
Sparrows Point

Baltimore County, MD
ARM Project 20010210

Coke Point Container Terminal
NAPL Piezometer Locations
November 27, 2023

Figure 9

ARM Group LLC
Engineers and Scientists

0 125 250 500 Feet

Tradepoint Atlantic
Sparrows Point

Baltimore County, MD
ARM Project 20010210

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TABLES

Table 1 - Container Terminal
Field Shifted Boring Locations

Location ID	Sample Target	Proposed Location*		Final Location*		Relocation Distance (ft.) & Direction		Reason for Shift
		Northing	Easting	Northing	Easting			
CT-001-SB	Battery #3	563,180	1,457,138	563,251	1,457,128	72	N	Shift off of Concrete Foundation
CT-002-SB	Former Tank Area	562,943	1,456,318	562,882	1,456,334	63	S	Inaccessible due to Topography
CT-003-SB	COA Coverage	562,626	1,456,558	562,593	1,456,559	33	S	Inaccessible due to Equiptment Storage
CT-005-SB	COA Coverage	562,682	1,457,152	562,750	1,457,143	68	N	Inaccessible due to Stockpile
CT-009-SB	Waste Steam Storage Tank	561,898	1,456,298	561,928	1,456,297	30	N	Inaccessible due to Stockpile
CT-010-SB	Light Oil Storage	561,854	1,456,729	561,857	1,456,804	74	E	Inaccessible due to Stockpile
CT-013-SB	COA Coverage	562,422	1,457,424	562,363	1,457,426	59	S	Overhead Utility
CT-014-SB	Tar Storage Tanks	562,280	1,457,641	562,277	1,457,680	39	E	Inaccessible due to Stockpile
CT-016-SB	Oil Storage Tanks	562,120	1,457,647	562,073	1,457,598	68	E	Inaccessible due to Stockpile
CT-018-SB	Tar Storage Tanks	561,953	1,457,672	561,806	1,457,550	191	SW	Shift closer to Cell 4
CT-019-SB	Coke Oven Office	562,079	1,457,915	562,080	1,457,908	7	SW	Shift off of Concrete Foundation
CT-022-SB	CPLF Coverage	560,671	1,456,220	560,675	1,456,379	159	E	Multiple refusals from subsurface metal
CT-024-SB	CPLF Coverage	560,185	1,457,915	560,160	1,456,723	26	S	Inaccessible due to Stockpile

*Reported northings and eastings are not survey accurate. Coordinates are reported in NAD 1983 Maryland State Plane (US feet).

Table 2 - Container Terminal
Characterization Results for Solid IDW

Sample ID	Parameter	Result (mg/L)	TCLP Limit (mg/L)	TCLP Exceedance	Laboratory Flag	LOQ (mg/L)
CT-IDW 10/27/2023	1,1-Dichloroethene	0.005	0.7	no	U	0.005
	1,2-Dichloroethane	0.005	0.5	no	U	0.005
	1,4-Dichlorobenzene	0.025	7.5	no	U	0.025
	2,4,5-Trichlorophenol	0.025	400	no	U	0.025
	2,4,6-Trichlorophenol	0.025	2	no	U	0.025
	2,4-Dinitrotoluene	0.025	0.13	no	U	0.025
	2-Butanone (MEK)	0.05	200	no	U	0.05
	2-Methylphenol	0.025	200	no	U	0.025
	3&4-Methylphenol(m&p Cresol)	0.025	200	no	U	0.025
	Arsenic	0.0268	5	no	J	1
	Barium	0.534	100	no		0.5
	Benzene	0.005	0.5	no	U	0.005
	Cadmium	0.1	1	no	U	0.1
	Carbon tetrachloride	0.005	0.5	no	U	0.005
	Chlorobenzene	0.005	100	no	U	0.005
	Chloroform	0.0075	6	no	U	0.0075
	Chromium	0.2	5	no	U	0.2
	Hexachlorobenzene	0.01	0.13	no	U	0.01
	Hexachloroethane	0.01	3	no	U	0.01
	Lead	0.5	5	no	U	0.5
	Mercury	0.001	0.2	no	U	0.001
	Nitrobenzene	0.01	2	no	U	0.01
	Pentachlorophenol	0.05	100	no	U	0.05
	Selenium	0.5	1	no	U	0.5
	Silver	0.1	5	no	U	0.1
	Tetrachloroethene	0.005	0.7	no	U	0.005
	Trichloroethene	0.005	0.5	no	U	0.005
	Vinyl chloride	0.01	0.2	no	U	0.01

J: The positive result for this analyte is a quantitative estimate below the laboratory LOQ.
U: The analyte was not detected in the sample. This numeric value represents the sample LOQ.
TCLP: Toxicity Characteristic Leaching Procedure
LOQ: Limit of Quantitation
IDW: Investigation Derived Waste

Table 3 - Container Terminal
Summary of Organics Detected in Soil

Parameter	Units	PAL	CT-001-SB-1	CT-001-SB-3	CT-002-SB-1*	CT-002-SB-4*	CT-002-SB-10*	CT-003-SB-1*	CT-003-SB-3*	CT-003-SB-10*	CT-004-SB-1*	CT-004-SB-9*	CT-004-SB-10*	CT-005-SB-1	CT-005-SB-3	CT-006-SB-1*	CT-006-SB-6*	CT-006-SB-10*
			9/11/2023	9/11/2023	10/16/2023	10/16/2023	10/16/2023	10/16/2023	10/16/2023	10/16/2023	10/13/2023	10/13/2023	10/13/2023	9/11/2023	9/11/2023	10/13/2023	10/13/2023	10/13/2023
Volatile Organic Compound																		
1,1,1-Trichloroethane	mg/kg	36,000	*N/A*	*0.00083 U*	*0.0005 U*	*0.0006 U*	*0.0006 U*	*N/A*	*0.00067 U*	*0.00091 U*	*N/A*	*0.32 U*	*0.3 U*	*N/A*	*N/A*	*0.00048 U*	*0.47 U*	*0.19 U*
1,1-Dichloroethane	mg/kg	16	*N/A*	*0.0016 U*	*0.001 U*	*0.0012 U*	*0.0012 U*	*N/A*	*0.0013 U*	*0.0018 U*	*N/A*	*0.63 U*	*0.59 U*	*N/A*	*N/A*	*0.00095 U*	*0.93 U*	*0.39 U*
1,2-Dichlorobenzene	mg/kg	9,300	*N/A*	*0.0033 U*	*0.002 U*	*0.0024 U*	*0.0024 U*	*N/A*	*0.0027 U*	*0.0036 U*	*N/A*	*1.3 U*	*1.2 U*	*N/A*	*N/A*	*0.0019 U*	*1.9 U*	*0.78 U*
2-Butanone (MEK)	mg/kg	190,000	*N/A*	*0.016 U*	*0.01 U*	*0.012 U*	*0.012 U*	*N/A*	*0.013 U*	*0.018 U*	*N/A*	*6.3 U*	*5.9 U*	*N/A*	*N/A*	*0.0095 U*	*9.3 U*	*3.9 U*
Acetone	mg/kg	670,000	*N/A*	*0.041 U*	*0.025 U*	**0.015 J**	*0.03 U*	*N/A*	*0.033 U*	*0.046 U*	*N/A*	*6.3 U*	*5.9 U*	*N/A*	*N/A*	*0.024 U*	**5.1 J**	**2 J**
Benzene	mg/kg	5.1	*N/A*	**0.00055 J**	*0.0005 U*	*0.0006 U*	*0.0006 U*	*N/A*	**0.00025 J**	*0.00091 U*	*N/A*	**0.47**	**9.2**	*N/A*	*N/A*	**0.0014**	**17**	**16**
Carbon disulfide	mg/kg	3,500	*N/A*	*0.016 U*	*0.01 U*	*0.012 U*	*0.012 U*	*N/A*	*0.013 U*	*0.018 U*	*N/A*	*6.3 U*	*5.9 U*	*N/A*	*N/A*	*0.0095 U*	*9.3 U*	*3.9 U*
Chloroform	mg/kg	1.4	*N/A*	*0.0025 U*	*0.0015 U*	*0.0018 U*	*0.0018 U*	*N/A*	*0.002 U*	*0.0027 U*	*N/A*	*0.95 U*	*0.88 U*	*N/A*	*N/A*	*0.0014 U*	*1.4 U*	*0.58 U*
Cyclohexane	mg/kg	27,000	*N/A*	*0.016 U*	*0.01 U*	*0.012 U*	**0.0024 J**	*N/A*	*0.013 U*	**0.0054 J**	*N/A*	*6.3 U*	*5.9 U*	*N/A*	*N/A*	*0.0095 U*	*9.3 U*	*3.9 U*
Ethylbenzene	mg/kg	25	*N/A*	*0.0016 U*	*0.001 U*	*0.0012 U*	**0.016**	*N/A*	*0.0013 U*	*0.0018 U*	*N/A*	**0.61 J**	**0.8**	*N/A*	*N/A*	**0.0022**	**340**	**130**
Isopropylbenzene	mg/kg	9,900	*N/A*	*0.0016 U*	*0.001 U*	*0.0012 U*	**0.024**	*N/A*	*0.0013 U*	*0.0018 U*	*N/A*	*0.63 U*	**0.078 J**	*N/A*	*N/A*	**0.00017 J**	**23**	**13**
Methyl Acetate	mg/kg	1,200,000	*N/A*	*0.0066 U*	*0.004 U*	*0.0048 U*	*0.0048 U*	*N/A*	*0.0053 U*	*0.0073 U*	*N/A*	*2.5 U*	*2.4 U*	*N/A*	*N/A*	*0.0038 U*	*3.7 U*	*1.6 U*
Styrene	mg/kg	35,000	*N/A*	*0.0016 U*	*0.001 U*	*0.0012 U*	*0.0012 U*	*N/A*	*0.0013 U*	*0.0018 U*	*N/A*	**2.1**	**2.1**	*N/A*	*N/A*	*0.00095 U*	**2.6**	**0.74**
Tetrachloroethene	mg/kg	100	*N/A*	*0.00083 U*	*0.0005 U*	*0.0006 U*	*0.0006 U*	*N/A*	*0.00067 U*	*0.00091 U*	*N/A*	*0.32 U*	*0.3 U*	*N/A*	*N/A*	*0.00048 U*	*0.47 U*	*0.19 U*
Toluene	mg/kg	47,000	*N/A*	*0.0016 U*	*0.001 U*	*0.0012 U*	*0.0012 U*	*N/A*	*0.0013 U*	*0.0018 U*	*N/A*	**1.7**	**12**	*N/A*	*N/A*	*0.00095 U*	**9.1**	**4.5**
Xylenes	mg/kg	2,800	*N/A*	**0.0005 J**	*0.001 U*	*0.0012 U*	**0.096**	*N/A*	*0.0013 U*	*0.0018 U*	*N/A*	**8.1**	**16**	*N/A*	*N/A*	**0.00068 J**	**97**	**26**
Semi-Volatile Organic Compound^																		
1,1-Biphenyl	mg/kg	200	*0.48 U*	*0.42 U*	*0.44 U*	*0.41 U*	**0.32 J**	*2 U*	**0.1 J**	**0.069 J**	*0.4 U*	**26**	**46**	*1.3 U*	*0.42 U*	**0.083 J**	**48**	**9.5 J**
2,4-Dimethylphenol	mg/kg	16,000	*0.21 R*	*0.18 U*	*0.19 U*	*0.18 U*	*0.21 U*	*0.88 U*	*0.19 U*	*0.21 U*	*0.18 U*	*4.7 U*	*4.3 U*	*0.58 R*	*0.18 U*	*0.18 U*	*4.2 U*	*4.3 U*
2,4-Dinitrotoluene	mg/kg	7.4	*0.21 U*	*0.18 U*	*0.19 U*	*0.18 U*	*0.21 U*	*0.88 U*	*0.19 U*	*0.21 U*	*0.18 U*	*4.7 U*	*4.3 U*	*0.58 U*	*0.18 U*	*0.18 U*	*4.2 U*	*4.3 U*
2-Methylnaphthalene	mg/kg	3,000	**0.023**	**0.28**	**0.012**	**0.026**	**3.2**	**0.095**	**0.39**	**0.51**	**0.071**	**190**	**88**	**0.02 J**	*0.0073 U*	**0.28**	**130**	**42**
2-Methylphenol	mg/kg	41,000	*0.21 R*	*0.18 U*	*0.19 U*	*0.18 U*	*0.21 U*	*0.88 U*	*0.19 U*	**0.033 J**	*0.18 U*	*4.7 U*	*4.3 U*	*0.58 R*	*0.18 U*	*0.18 U*	*4.2 U*	*4.3 U*
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	*0.3 U*	*0.26 U*	*0.28 U*	*0.26 U*	*0.31 U*	*1.3 U*	**0.031 J**	**0.1 J**	*0.26 U*	*6.8 U*	*6.2 U*	*0.84 R*	*0.26 U*	*0.26 U*	*6.1 U*	*6.2 U*
Acenaphthene	mg/kg	45,000	*0.0084 U*	**0.021**	*0.0076 U*	**0.0022 J**	**0.23**	*0.035 U*	**0.087**	**0.0017 J**	**0.014**	**33**	**12**	**0.041**	*0.0073 U*	**0.019**	**80**	**32**
Acenaphthylene	mg/kg	45,000	**0.004 J**	**0.021**	**0.0014 J**	**0.0012 J**	**0.12**	**0.14**	**0.062**	**0.036**	**0.16**	**460**	**160**	**0.0074 J**	*0.0073 U*	**0.3**	**33**	**6**
Acetophenone	mg/kg	120,000	*0.21 UJ*	*0.18 U*	*0.19 U*	*0.18 U*	*0.21 U*	*0.88 U*	*0.19 U*	*0.21 U*	*0.18 U*	*4.7 U*	*4.3 U*	*0.58 UJ*	*0.18 UJ*	**0.13 J**	*4.2 U*	*4.3 U*
Anthracene	mg/kg	230,000	**0.0037 J**	**0.054**	**0.0034 J**	**0.0013 J**	**0.098**	**0.11**	**0.36**	**0.058**	**0.14**	**210**	**66**	**0.084**	**0.0017 J**	**0.17**	**18**	**12**
Benz[a]anthracene	mg/kg	21	**0.016**	**0.098**	**0.0095**	**0.0022 J**	**0.02**	**0.77**	**1.7**	**0.8**	**0.69**	**350**	**130**	**0.026**	**0.0054 J**	**1.4**	**42**	**6.6**
Benzaldehyde	mg/kg	120,000	*0.28 UJ*	*0.24 U*	*0.25 U*	**0.56**	*0.28 U*	*1.2 U*	*0.25 U*	*0.27 U*	*0.23 U*	*6.2 U*	*5.6 U*	*0.77 UJ*	*0.24 UJ*	*0.24 U*	*5.6 U*	*5.7 U*
Benzo[a]pyrene	mg/kg	2.1	**0.015**	**0.07**	**0.007 J**	**0.0022 J**	**0.0082 J**	**0.52**	**1.6**	**0.77**	**0.64**	**200**	**73**	**0.015 J**	**0.0037 J**	**0.58**	**35**	**4.1**
Benzo[b]fluoranthene	mg/kg	21	**0.018**	**0.11**	**0.0095**	**0.0024 J**	**0.014**	**0.67**	**2.4**	**1.1**	**1.2**	**200**	**72**	**0.018 J**	**0.0048 J**	**1.3**	**34**	**4.8**
Benzo[g,h,i]perylene	mg/kg		**0.0095**	**0.044**	**0.0053 J**	**0.0013 J**	**0.0061 J**	**0.46**	**1.6**	**0.65**	**0.43**	**130**	**45**	**0.0063 J**	**0.002 J**	**0.38**	**18**	**1.8**
Benzo[k]fluoranthene	mg/kg	210	**0.0068 J**	**0.038**	**0.0032 J**	**0.00065 J**	**0.0036 J**	**0.21**	**0.7**	**0.23**	**0.24**	**59**	**22**	**0.0051 J**	**0.0013 J**	**0.28**	**15**	**1.7**
bis(2-Ethylhexyl)phthalate	mg/kg	160	*0.21 UJ*	*0.18 U*	*0.19 U*	*0.18 U*	*0.21 U*	*0.88 U*	*0.19 U*	*0.21 U*	*0.18 U*	*4.7 U*	*4.3 U*	*0.58 UJ*	*0.18 UJ*	*0.18 U*	*4.2 U*	*4.3 U*
Carbazole	mg/kg		*0.21 U*	**0.031 J**	*0.19 U*	*0.18 U*	*0.21 U*	**0.097 J**	**0.091 J**	*0.21 U*	**0.11 J**	**32**	**60**	*0.58 U*	*0.18 U*	**0.09 J**	**2.5 J**	**2.2 J**
Chrysene	mg/kg	2,100	**0.014**	**0.088**	**0.0085**	**0.0027 J**	**0.035**	**0.55**	**1.8**	**0.6**	**0.64**	**150**	**57**	**0.022 J**	**0.0045 J**	**1.1**	**30**	**5.3**
Dibenz[a,h]anthracene	mg/kg	2.1	**0.0022 J**	**0.014**	**0.0011 J**	*0.0072 U*	**0.0018 J**	**0.077**	**0.35**	**0.15**	**0.1**	**22**	**8**	*0.023 U*	*0.0073 U*	**0.1**	**4.8**	**0.78**
Fluoranthene	mg/kg	30,000	**0.028**	**0.25**	**0.022**	**0.0038 J**	**0.018**	**1.1**	**2.8**	**0.58**	**1.9**	**630**	**220**	**0.1**	**0.01**	**2.4**	**45**	**18**
Fluorene	mg/kg	30,000	**0.0048 J**	**0.032**	**0.00095 J**	**0.0036 J**	**0.4**	**0.019 J**	**0.065**	**0.0076 J**	**0.069**	**220**	**82**	**0.036**	*0.0073 U*	**0.024**	**48**	**21**
Indeno[1,2,3-c,d]pyrene	mg/kg	21	**0.012**	**0.056**	**0.0062 J**	**0.0013 J**	**0.0074 J**	**0.5**	**1.7**	**0.81**	**0.54**	**150**	**52**	**0.0094 J**	**0.003 J**	**0.53**	**24**	**2.7**
Naphthalene	mg/kg	8.6	**0.026**	**0.22**	**0.027**	**0.014**	**0.24**	**0.18**	**0.6**	**0.31**	**0.44**	**2,400**	**1,100**	**0.02 J**	**0.0026 J**	**0.69**	**1,300**	**410**
Pentachlorophenol	mg/kg	4	*0.17 R*	*0.15 U*	*0.15 U*	*0.14 U*	*0.17 U*	*0.71 U*	*0.15 U*	*0.17 U*	*0.14 U*	*3.8 U*	*3.4 U*	*0.46 R*	*0.15 U*	*0.14 U*	*3.4 U*	*3.4 U*
Phenanthrene	mg/kg		**0.015**	**0.25**	**0.024**	**0.012**	**1**	**0.51**	**1.7**	**1.2**	**0.59**	**830**	**280**	**0.14**	**0.0064 J**	**0.66**	**60**	**38**
Phenol	mg/kg	250,000	*0.21 R*	*0.18 U*	*0.19 U*	*0.18 U*	*0.21 U*	*0.88 U*	*0.19 U*	**0.21**	*0.18 U*	*4.7 U*	**0.94 J**	*0.58 R*	*0.18 U*	*0.18 U*	*4.2 U*	*4.3 U*
Pyrene	mg/kg	23,000	**0.025**	**0.19**	**0.018**	**0.0044 J**	**0.12**	**0.93**	**2.3**	**0.58**	**1.5**	**500**	**170**	**0.073**	**0.0082**	**2.3**	**37**	**13**
PCBs																		
Aroclor 1242	mg/kg	0.97	*0.0633 U*	*N/A*	*0.0574 U*	*N/A*	*N/A*	*0.0515 U*	*N/A*	*N/A*	*0.0492 U*	*N/A*	*N/A*	*0.0595 U*	*N/A*	*0.0504 U*	*N/A*	*N/A*
Aroclor 1254	mg/kg	0.97	*0.0633 U*	*N/A*	*0.0574 U*	*N/A*	*N/A*	**0.013 J**	*N/A*	*N/A*	*0.0492 U*	*N/A*	*N/A*	*0.0595 U*	*N/A*	*0.0504 U*	*N/A*	*N/A*
Aroclor 1260	mg/kg	0.99	*0.0633 U*	*N/A*	*0.0574 U*	*N/A*	*N/A*	*0.0515 U*	*N/A*	*N/A*	*0.0492 U*	*N/A*	*N/A*	*0.0595 U*	*N/A*	*0.0504 U*	*N/A*	*N/A*
Aroclor 1268	mg/kg		*0.0633 U*	*N/A*	*0.0574 U*	*N/A*	*N/A*	**0.0112 J**	*N/A*	*N/A*	*0.0492 U*	*N/A*	*N/A*	*0.0595 U*	*N/A*	*0.0504 U*	*N/A*	*N/A*
PCBs (total)	mg/kg	0.97	*0.0633 U*	*N/A*	*0.0574 U*	*N/A*	*N/A*	**0.0242 J**	*N/A*	*N/A*	*0.0492 U*	*N/A*	*N/A*	*0.0595 U*	*N/A*	*0.0504 U*	*N/A*	*N/A*
TPH/Oil & Grease																		
Diesel Range Organics	mg/kg	6,200	**12 J**	**33 J**	**3.3 J**	**23 J**	**3,000**	**260**	**120**	**130**	**18 J**	**13,000**	**9,600**	**5.4 J**	**3.4 J**	**74**	**17,000**	**9,400**
Gasoline Range Organics	mg/kg	6,200	*1 B*	*1.9 B*	*1.9 U*	**4.5**	**280**	**2.8**	**4**	**8.8**	*2.3 U*	**1,800**	**750**	*0.74 B*	*0.69 B*	*2.6 U*	**2,000**	**510**
Oil & Grease	mg/kg	6,200	**296**	*222 U*	**256**	**859**	**1,620**	**7,860**	**546**	*254 U*	*214 U*	**10,100**	**7,210**	**286**	*224 U*	**1,540**	**28,000**	**15,500**

Detections in bold
Values in red indicate an exceedance of the Project Action Limit (PAL)
N/A indicates that the parameter was not analyzed for this sample
* indicates non-validated data
^ indicates PAHs analyzed for SIM

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
J: The positive result reported for this analyte is a quantitative estimate.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.
J-: The positive result reported for this analyte is a quantitative estimate but may be biased low.
B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.

Table 3 - Container Terminal
Summary of Organics Detected in Soil

Parameter	Units	PAL	CT-007-SB-1*	CT-007-SB-3*	CT-007-SB-10*	CT-008-SB-1	CT-008-SB-3	CT-009-SB-1*	CT-009-SB-3*	CT-009-SB-10*	CT-010-SB-1*	CT-010-SB-7*	CT-010-SB-10*	CT-011-SB-1*	CT-011-SB-4*	CT-012-SB-1*	CT-012-SB-9*	CT-013-SB-1*
			10/13/2023	10/13/2023	10/13/2023	10/11/2023	10/11/2023	10/12/2023	10/12/2023	10/12/2023	10/12/2023	10/12/2023	10/12/2023	10/12/2023	10/12/2023	10/12/2023	10/12/2023	10/12/2023
Volatile Organic Compound																		
1,1,1-Trichloroethane	mg/kg	36,000	*0.00042 U*	*0.05 U*	*0.048 U*	*N/A*	*N/A*	*N/A*	*0.00066 U*	*N/A*	*N/A*	**0.003**	**0.00049 J**	*N/A*	*0.00052 U*	*N/A*	*N/A*	*0.00057 U*
1,1-Dichloroethane	mg/kg	16	*0.00084 U*	*0.1 U*	*0.095 U*	*N/A*	*N/A*	*N/A*	*0.0013 U*	*N/A*	*N/A*	**0.00027 J**	*0.0011 U*	*N/A*	*0.001 U*	*N/A*	*N/A*	*0.0011 U*
1,2-Dichlorobenzene	mg/kg	9,300	*0.0017 U*	*0.2 U*	*0.19 U*	*N/A*	*N/A*	*N/A*	*0.0026 U*	*N/A*	*N/A*	*0.0023 U*	*0.0022 U*	*N/A*	*0.0021 U*	*N/A*	*N/A*	*0.0023 U*
2-Butanone (MEK)	mg/kg	190,000	*0.0084 U*	*1 U*	*0.95 U*	*N/A*	*N/A*	*N/A*	*0.013 U*	*N/A*	*N/A*	*0.012 U*	*0.011 U*	*N/A*	**0.0042 J**	*N/A*	*N/A*	*0.011 U*
Acetone	mg/kg	670,000	*0.021 U*	*1 U*	*0.95 U*	*N/A*	*N/A*	*N/A*	**0.021 J**	*N/A*	*N/A*	**0.044**	**0.026 J**	*N/A*	**0.2**	*N/A*	*N/A*	*0.028 U*
Benzene	mg/kg	5.1	**0.00043**	**14**	**4.1**	*N/A*	*N/A*	*N/A*	**0.0067**	*N/A*	*N/A*	**0.046**	**0.048**	*N/A*	**0.0047**	*N/A*	*N/A*	**0.0032**
Carbon disulfide	mg/kg	3,500	*0.0084 U*	*1 U*	*0.95 U*	*N/A*	*N/A*	*N/A*	*0.013 U*	*N/A*	*N/A*	*0.012 U*	*0.011 U*	*N/A*	*0.01 U*	*N/A*	*N/A*	*0.011 U*
Chloroform	mg/kg	1.4	*0.0012 U*	*0.15 U*	*0.14 U*	*N/A*	*N/A*	*N/A*	*0.002 U*	*N/A*	*N/A*	*0.0018 U*	*0.0016 U*	*N/A*	*0.0016 U*	*N/A*	*N/A*	*0.0017 U*
Cyclohexane	mg/kg	27,000	*0.0084 U*	**0.17 J**	*0.95 U*	*N/A*	*N/A*	*N/A*	**0.0019 J**	*N/A*	*N/A*	**0.0037 J**	**0.0011 J**	*N/A*	**0.0024 J**	*N/A*	*N/A*	**0.002 J**
Ethylbenzene	mg/kg	25	*0.00084 U*	**1.6**	**0.93**	*N/A*	*N/A*	*N/A*	**0.0003 J**	*N/A*	*N/A*	**0.0016**	**0.00055 J**	*N/A*	**0.0066**	*N/A*	*N/A*	**0.0012**
Isopropylbenzene	mg/kg	9,900	*0.00084 U*	**0.17**	**0.041 J**	*N/A*	*N/A*	*N/A*	*0.0013 U*	*N/A*	*N/A*	**0.00025 J**	*0.0011 U*	*N/A*	**0.0005 J**	*N/A*	*N/A*	**0.0006 J**
Methyl Acetate	mg/kg	1,200,000	*0.0033 U*	**0.34 J**	*0.38 U*	*N/A*	*N/A*	*N/A*	*0.0053 U*	*N/A*	*N/A*	*0.0047 U*	*0.0043 U*	*N/A*	*0.0041 U*	*N/A*	*N/A*	*0.0046 U*
Styrene	mg/kg	35,000	*0.00084 U*	**1.9**	**0.59**	*N/A*	*N/A*	*N/A*	**0.00083 J**	*N/A*	*N/A*	**0.0023**	**0.0011**	*N/A*	**0.00068 J**	*N/A*	*N/A*	**0.00073 J**
Tetrachloroethene	mg/kg	100	*0.00042 U*	*0.05 U*	*0.048 U*	*N/A*	*N/A*	*N/A*	*0.00066 U*	*N/A*	*N/A*	*0.00059 U*	*0.00054 U*	*N/A*	*0.00052 U*	*N/A*	*N/A*	*0.00057 U*
Toluene	mg/kg	47,000	*0.00084 U*	**7.2**	**2.2**	*N/A*	*N/A*	*N/A*	**0.0036**	*N/A*	*N/A*	**0.027**	**0.021**	*N/A*	**0.0037**	*N/A*	*N/A*	**0.0076**
Xylenes	mg/kg	2,800	*0.00084 U*	**20**	**3**	*N/A*	*N/A*	*N/A*	**0.0024 J**	*N/A*	*N/A*	**0.019**	**0.0094**	*N/A*	**0.045**	*N/A*	*N/A*	**0.007**
Semi-Volatile Organic Compound^																		
1,1-Biphenyl	mg/kg	200	**0.13 J**	**61**	**2.4**	*0.48 U*	**0.077 J**	**0.049 J**	**0.054 J**	*N/A*	**0.078 J**	**0.097 J**	**0.046 J**	*0.47 U*	**0.12 J**	**0.28 J**	**0.028 J**	**0.13 J**
2,4-Dimethylphenol	mg/kg	16,000	*0.18 U*	**3.6 J**	**0.2 J**	*0.21 U*	*0.19 U*	*0.19 U*	*0.19 U*	*N/A*	*0.19 U*	*0.18 U*	*0.18 U*	*0.2 U*	*0.18 U*	*0.17 U*	*0.18 U*	*0.18 U*
2,4-Dinitrotoluene	mg/kg	7.4	*0.18 U*	*5.3 U*	*0.56 U*	*0.21 U*	*0.19 U*	*0.19 U*	*0.19 U*	*N/A*	*0.19 U*	*0.18 U*	*0.18 U*	*0.2 U*	*0.18 U*	*0.17 U*	*0.18 U*	*0.18 U*
2-Methylnaphthalene	mg/kg	3,000	**0.094**	**470**	**12**	**0.037**	**0.086**	**0.078**	**0.13**	*N/A*	**0.26**	**0.58**	**0.25**	**0.0028 J**	**0.92**	**0.56**	**0.065**	**0.38**
2-Methylphenol	mg/kg	41,000	*0.18 U*	**4.8 J**	**0.43 J**	*0.21 U*	*0.19 U*	*0.19 U*	*0.19 U*	*N/A*	*0.19 U*	*0.18 U*	*0.18 U*	*0.2 U*	*0.18 U*	*0.17 U*	*0.18 U*	*0.18 U*
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	*0.26 U*	**9.9**	**0.87**	*0.3 U*	*0.27 U*	*0.27 U*	*0.27 U*	*N/A*	*0.27 U*	**0.034 J**	**0.03 J**	*0.3 U*	**0.043 J**	*0.25 U*	*0.25 U*	**0.028 J**
Acenaphthene	mg/kg	45,000	**0.02 J**	**51**	**9.4**	**0.04**	**0.099**	**0.036**	**0.17**	*N/A*	**0.13 J**	**0.76**	**0.47**	*0.0082 U*	**0.14**	*0.07 U*	**0.0022 J**	**0.013**
Acenaphthylene	mg/kg	45,000	**0.25**	**600**	**12**	**0.032**	**0.016**	**0.019**	**0.12**	*N/A*	**0.27**	**0.32**	**0.25**	**0.0054 J**	**0.48**	**0.091**	**0.0076**	**0.041**
Acetophenone	mg/kg	120,000	*0.18 U*	**0.95 J**	*0.56 U*	*0.21 UJ*	*0.19 U*	*0.19 U*	*0.19 U*	*N/A*	*0.19 U*	**0.057 J**	**0.034 J**	*0.2 U*	*0.18 U*	**0.095 J**	*0.18 U*	*0.18 U*
Anthracene	mg/kg	230,000	**0.24**	**430**	**11**	**0.36**	**0.31**	**0.064**	**0.71**	*N/A*	**0.78**	**2.2**	**2.1**	**0.0031 J**	**1.2**	**0.11**	**0.0087**	**0.11**
Benz[a]anthracene	mg/kg	21	**0.78**	**820**	**34**	**2.8**	**1.4**	**0.27**	**3.1**	*N/A*	**3.8**	**6.3**	**7.8**	**0.0093**	**2.5**	**0.98**	**0.05**	**0.18**
Benzaldehyde	mg/kg	120,000	*0.24 U*	*7 U*	*0.74 U*	*0.28 UJ*	*0.25 U*	*0.25 U*	*0.25 U*	*N/A*	*0.25 U*	*0.24 U*	*0.24 U*	*0.27 U*	*0.24 U*	*0.23 U*	*0.23 U*	*0.23 U*
Benzo[a]pyrene	mg/kg	2.1	**0.46**	**460**	**25**	**3.6**	**1.4**	**0.2**	**2.8**	**0.6**	**2.9**	**7.4**	**8.4**	**0.008 J**	**1.9**	**0.75**	**0.062**	**0.14**
Benzo[b]fluoranthene	mg/kg	21	**0.57**	**490**	**29**	**5**	**1.8**	**0.33**	**3.7**	*N/A*	**3.8**	**9.2**	**10**	**0.011**	**2.3**	**1.8**	**0.18**	**0.24**
Benzo[g,h,i]perylene	mg/kg		**0.28**	**240**	**12**	**2.2**	**0.68**	**0.12**	**1.2**	*N/A*	**1.7**	**4.6**	**4.4**	**0.0046 J**	**0.73**	**0.68**	**0.082**	**0.085**
Benzo[k]fluoranthene	mg/kg	210	**0.19**	**170**	**9**	**1.3**	**0.44**	**0.09**	**1.1**	*N/A*	**1.3**	**2.9**	**3.2**	**0.0029 J**	**0.81**	**0.42**	**0.039**	**0.057**
bis(2-Ethylhexyl)phthalate	mg/kg	160	*0.18 U*	**1.8 J**	*0.56 U*	*0.21 UJ*	*0.19 U*	*0.19 U*	*0.19 U*	*N/A*	*0.19 U*	*0.18 U*	*0.18 U*	*0.2 U*	*0.18 U*	*0.17 U*	*0.18 U*	*0.18 U*
Carbazole	mg/kg		**0.36**	**130**	**7.2**	**0.18 J**	**0.27**	**0.082 J**	**0.45**	*N/A*	**0.26**	**0.58**	**0.3**	*0.2 U*	**0.56**	**0.16 J**	**0.027 J**	**0.14 J**
Chrysene	mg/kg	2,100	**0.44**	**400**	**21**	**2.6**	**1.2**	**0.25**	**2.7**	*N/A*	**3.1**	**5.7**	**6.8**	**0.0077 J**	**1.9**	**1.1**	**0.17**	**0.2**
Dibenz[a,h]anthracene	mg/kg	2.1	**0.067**	**58**	**3.6**	**0.69**	**0.21**	**0.028**	**0.4**	*N/A*	**0.45**	**1.1**	**1.1**	**0.0013 J**	**0.26**	**0.18**	**0.024**	**0.021**
Fluoranthene	mg/kg	30,000	**1.4**	**1,600**	**63**	**3.5**	**2.6**	**0.6**	**5**	*N/A*	**6.1**	**11**	**14**	**0.014**	**4.4**	**2.2**	**0.34**	**0.47**
Fluorene	mg/kg	30,000	**0.13**	**590**	**16**	**0.022**	**0.059**	**0.027**	**0.17**	*N/A*	**0.13 J**	**0.74**	**0.44**	**0.0016 J**	**0.83**	*0.07 U*	*0.007 U*	**0.021**
Indeno[1,2,3-c,d]pyrene	mg/kg	21	**0.36**	**310**	**17**	**3**	**0.86**	**0.14**	**1.8**	*N/A*	**2.2**	**5.9**	**6.2**	**0.0062 J**	**1.1**	**0.9**	**0.093**	**0.1**
Naphthalene	mg/kg	8.6	**0.46**	**3,200**	**86**	**0.094**	**0.33**	**0.11**	**0.26**	*N/A*	**0.49**	**4.4**	**0.91**	**0.004 J**	**1.7**	**8.2**	**0.4**	**0.37**
Pentachlorophenol	mg/kg	4	*0.14 U*	*4.2 U*	*0.45 U*	*0.17 U*	*0.15 U*	*0.15 U*	*0.15 U*	*N/A*	*0.15 U*	*0.15 U*	*0.14 U*	*0.16 U*	*0.15 U*	*0.14 U*	*0.14 U*	*0.14 U*
Phenanthrene	mg/kg		**0.93**	**1,800**	**41**	**1.4**	**0.98**	**0.41**	**2.8**	*N/A*	**2.5**	**7.2**	**7.4**	**0.011**	**4.5**	**2.3**	**0.4**	**0.37**
Phenol	mg/kg	250,000	*0.18 U*	**9.8**	**1.3**	*0.21 U*	*0.19 U*	*0.19 U*	*0.19 U*	*N/A*	*0.19 U*	*0.18 U*	*0.18 U*	*0.2 U*	*0.18 U*	*0.17 U*	*0.18 U*	*0.18 U*
Pyrene	mg/kg	23,000	**1.1**	**1,100**	**44**	**2.9**	**2**	**0.47**	**4**	*N/A*	**5.7**	**8.6**	**11**	**0.012**	**3.2**	**1.4**	**0.1**	**0.38**
PCBs																		
Aroclor 1242	mg/kg	0.97	*0.0525 U*	*N/A*	*N/A*	*0.0621 U*	*N/A*	**0.0283 J**	*N/A*	*N/A*	**0.548**	*N/A*	*N/A*	*0.0612 U*	*N/A*	*0.0494 U*	*N/A*	**0.0168 JP**
Aroclor 1254	mg/kg	0.97	*0.0525 U*	*N/A*	*N/A*	*0.0621 U*	*N/A*	**0.0122 J**	*N/A*	*N/A*	**0.265**	*N/A*	*N/A*	*0.0612 U*	*N/A*	**0.017 J**	*N/A*	**0.0288 J**
Aroclor 1260	mg/kg	0.99	*0.0525 U*	*N/A*	*N/A*	*0.0621 U*	*N/A*	**0.015 J**	*N/A*	*N/A*	**0.157**	*N/A*	*N/A*	*0.0612 U*	*N/A*	**0.0221 J**	*N/A*	**0.0173 J**
Aroclor 1268	mg/kg		*0.0525 U*	*N/A*	*N/A*	*0.0621 U*	*N/A*	**0.0111 J**	*N/A*	*N/A*	**0.0828**	*N/A*	*N/A*	*0.0612 U*	*N/A*	**0.025 J**	*N/A*	**0.0112 J**
PCBs (total)	mg/kg	0.97	*0.0525 U*	*N/A*	*N/A*	*0.0621 U*	*N/A*	**0.0666 J**	*N/A*	*N/A*	**1.05**	*N/A*	*N/A*	*0.0612 U*	*N/A*	**0.0641 J**	*N/A*	**0.0741 J**
TPH/Oil & Grease																		
Diesel Range Organics	mg/kg	6,200	**76**	**26,000**	**930**	**110**	**240**	**100**	**46**	*N/A*	**140**	**330**	**160**	**6.9 J**	**130**	**220**	**110**	**69**
Gasoline Range Organics	mg/kg	6,200	**2 J**	**3,200**	**280**	*3.2 U*	*2.8 U*	*2.5 U*	**4**	*N/A*	*2.8 U*	**14**	**13**	*3 U*	**22**	**4.7**	**1.9 J**	**4.9**
Oil & Grease	mg/kg	6,200	*218 U*	**36,200**	**1,860**	**376 J-**	**795 J-**	**1,040**	**1,090**	*N/A*	**2,710**	**714**	**630**	**1,370**	**576**	**842**	**404**	**280**

Detections in bold
Values in red indicate an exceedance of the Project Action Limit (PAL)
N/A indicates that the parameter was not analyzed for this sample
* indicates non-validated data
^ indicates PAHs analyzed for SIM

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
J: The positive result reported for this analyte is a quantitative estimate.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.
J-: The positive result reported for this analyte is a quantitative estimate but may be biased low.
B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.

Table 3 - Container Terminal
Summary of Organics Detected in Soil

Parameter	Units	PAL	CT-013-SB-7*	CT-013-SB-10*	CT-014-SB-1*	CT-014-SB-4*	CT-014-SB-10*	CT-015-SB-1*	CT-015-SB-3*	CT-015-SB-10*	CT-016-SB-1	CT-016-SB-8	CT-016-SB-10	CT-017-SB-1	CT-017-SB-9	CT-017-SB-10	CT-018-SB-1	CT-018-SB-9
			10/12/2023	10/12/2023	10/13/2023	10/13/2023	10/13/2023	10/16/2023	10/16/2023	10/16/2023	9/29/2023	9/29/2023	9/29/2023	10/17/2023	10/17/2023	10/17/2023	10/17/2023	10/17/2023
Volatile Organic Compound																		
1,1,1-Trichloroethane	mg/kg	36,000	*0.00048 U*	*0.00041 U*	*N/A*	*0.00047 U*	*0.00062 U*	*0.00054 U*	*0.00059 U*	*0.0005 U*	*N/A*	*0.00051 U*	*0.00037 U*	*0.00057 UJ*	*0.00048 U*	*0.00042 U*	*N/A*	*0.00038 U*
1,1-Dichloroethane	mg/kg	16	*0.00096 U*	*0.00082 U*	*N/A*	*0.00094 U*	*0.0012 U*	*0.0011 U*	*0.0012 U*	*0.001 U*	*N/A*	*0.001 U*	*0.00074 U*	*0.0011 U*	*0.00095 U*	*0.00084 U*	*N/A*	*0.00075 U*
1,2-Dichlorobenzene	mg/kg	9,300	*0.0019 U*	*0.0016 U*	*N/A*	*0.0019 U*	*0.0025 U*	*0.0022 U*	*0.0024 U*	*0.002 U*	*N/A*	*0.002 U*	*0.0015 U*	*0.0023 U*	*0.0019 U*	*0.0017 U*	*N/A*	*0.0015 U*
2-Butanone (MEK)	mg/kg	190,000	*0.0096 U*	**0.0081 J**	*N/A*	*0.0094 U*	*0.012 U*	*0.011 U*	*0.012 U*	*0.01 U*	*N/A*	*0.01 U*	**0.0022 J**	*0.011 UJ*	*0.0095 UJ*	*0.0084 UJ*	*N/A*	*0.0075 UJ*
Acetone	mg/kg	670,000	**0.014 J**	**0.016 J**	*N/A*	*0.024 U*	*0.031 U*	*0.027 U*	*0.03 U*	*0.025 U*	*N/A*	**0.024 J**	**0.0079 J**	*0.028 U*	**0.01 J**	**0.0097 J**	*N/A*	*0.019 UJ*
Benzene	mg/kg	5.1	**0.0016**	**0.00087**	*N/A*	*0.00047 U*	**0.00072**	**0.00021 J**	**0.00059**	**0.00061**	*N/A*	*0.00051 U*	**0.0024**	**0.0038**	**0.00074**	**0.0011**	*N/A*	**0.00022 J**
Carbon disulfide	mg/kg	3,500	*0.0096 U*	*0.0082 U*	*N/A*	*0.0094 U*	*0.012 U*	*0.011 U*	*0.012 U*	*0.01 U*	*N/A*	*0.01 U*	*0.0074 U*	*0.011 U*	*0.0095 U*	*0.0084 U*	*N/A*	*0.0075 U*
Chloroform	mg/kg	1.4	*0.0014 U*	*0.0012 U*	*N/A*	**0.00025 J**	**0.0063**	*0.0016 U*	*0.0018 U*	*0.0015 U*	*N/A*	*0.0015 U*	*0.0011 U*	*0.0017 UJ*	*0.0014 UJ*	*0.0013 UJ*	*N/A*	*0.0011 UJ*
Cyclohexane	mg/kg	27,000	**0.0022 J**	**0.0028 J**	*N/A*	*0.0094 U*	*0.012 U*	*0.011 U*	*0.012 U*	*0.01 U*	*N/A*	*0.01 U*	*0.0074 UJ*	**0.00099 J**	*0.0095 U*	*0.0084 U*	*N/A*	*0.0075 U*
Ethylbenzene	mg/kg	25	**0.00017 J**	**0.00017 J**	*N/A*	*0.00094 U*	*0.0012 U*	*0.0011 U*	*0.0012 U*	**0.00038 J**	*N/A*	*0.001 U*	**0.00036 J**	**0.0041**	**0.0017**	**0.00049 J**	*N/A*	**0.00012 J**
Isopropylbenzene	mg/kg	9,900	*0.00096 U*	*0.00082 U*	*N/A*	*0.00094 U*	*0.0012 U*	*0.0011 U*	*0.0012 U*	*0.001 U*	*N/A*	*0.001 U*	*0.00074 U*	**0.0015**	**0.00036 J**	*0.00084 U*	*N/A*	*0.00075 U*
Methyl Acetate	mg/kg	1,200,000	*0.0038 U*	*0.0033 U*	*N/A*	*0.0038 U*	*0.005 U*	*0.0044 U*	*0.0048 U*	*0.004 U*	*N/A*	*0.0041 U*	*0.0029 U*	**0.0017 J**	*0.0038 UJ*	*0.0034 UJ*	*N/A*	*0.003 UJ*
Styrene	mg/kg	35,000	*0.00096 U*	*0.00082 U*	*N/A*	*0.00094 U*	*0.0012 U*	*0.0011 U*	*0.0012 U*	*0.001 U*	*N/A*	*0.001 U*	*0.00074 U*	*0.00095 B*	*0.00095 U*	*0.00084 U*	*N/A*	*0.00075 U*
Tetrachloroethene	mg/kg	100	*0.00048 U*	*0.00041 U*	*N/A*	*0.00047 U*	*0.00062 U*	*0.00054 U*	*0.00059 U*	*0.0005 U*	*N/A*	*0.00051 U*	*0.00037 U*	**0.00098**	*0.00048 U*	*0.00042 U*	*N/A*	*0.00038 U*
Toluene	mg/kg	47,000	**0.0017**	**0.0007 J**	*N/A*	*0.00094 U*	*0.0012 U*	*0.0011 U*	*0.0012 U*	*0.001 U*	*N/A*	*0.001 U*	**0.0015**	**0.0047**	**0.0021**	**0.0012**	*N/A*	*0.00075 U*
Xylenes	mg/kg	2,800	**0.0011 J**	*0.00082 U*	*N/A*	*0.00094 U*	*0.0012 U*	*0.0011 U*	*0.0012 U*	**0.0018 J**	*N/A*	*0.001 U*	*0.00074 U*	**0.016**	**0.0018 J**	**0.00034 J**	*N/A*	**0.00076 J**
Semi-Volatile Organic Compound^																		
1,1-Biphenyl	mg/kg	200	**0.36 J**	*0.4 U*	*2.3 U*	**0.048 J**	*0.46 U*	**0.18 J**	**0.12 J**	**0.056 J**	**0.061 J**	**0.34 J**	*0.42 U*	**0.42 J**	*0.42 U*	**0.033 J**	**0.22 J**	*0.41 U*
2,4-Dimethylphenol	mg/kg	16,000	*0.89 U*	*0.18 U*	*1 U*	*0.19 U*	*0.2 U*	*0.19 U*	*0.19 U*	*0.18 U*	*0.21 R*	*0.18 U*	*0.18 U*	*0.19 R*	*0.18 UJ*	*0.18 U*	*0.18 U*	*0.18 U*
2,4-Dinitrotoluene	mg/kg	7.4	*0.89 U*	*0.18 U*	*1 U*	*0.19 U*	*0.2 U*	*0.19 U*	*0.19 U*	*0.18 U*	*0.21 UJ*	*0.18 UJ*	*0.18 U*	*0.19 UJ*	*0.18 U*	*0.18 UJ*	*0.18 UJ*	*0.18 UJ*
2-Methylnaphthalene	mg/kg	3,000	**2.3**	**0.062**	**0.049**	**0.11**	**0.0048 J**	**0.63**	**0.6**	**0.21**	**0.21**	**3.1**	**0.016**	**0.49**	**0.082**	**0.066**	**3.2**	**0.095**
2-Methylphenol	mg/kg	41,000	*0.89 U*	*0.18 U*	*1 U*	*0.19 U*	*0.2 U*	**0.043 J**	*0.19 U*	*0.18 U*	*0.21 R*	*0.18 U*	*0.18 U*	*0.19 U*	*0.18 U*	*0.18 U*	*0.18 U*	*0.18 U*
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	**0.31 J**	*0.25 U*	*1.4 U*	*0.28 U*	*0.29 U*	**0.087 J**	**0.088 J**	*0.26 U*	*0.3 U*	*0.26 U*	*0.26 U*	**0.69**	*0.26 U*	*0.26 U*	*0.26 U*	*0.26 U*
Acenaphthene	mg/kg	45,000	**0.58**	**0.012**	**0.0088 J**	**0.013**	*0.008 U*	**0.1 J**	**0.5**	**0.078**	**0.035**	*0.0071 U*	*0.0073 U*	**0.15**	**0.0061 J**	**0.0056 J**	**0.011**	**0.1**
Acenaphthylene	mg/kg	45,000	**4.4**	**0.044**	**0.0076 J**	**0.2**	**0.0017 J**	**2.8**	**3.3**	**0.11**	**0.19**	**0.18**	**0.0026 J**	**0.083**	**0.0068 J**	**0.004 J**	**0.053**	**0.056 J**
Acetophenone	mg/kg	120,000	*0.89 U*	*0.18 U*	*1 U*	*0.19 U*	*0.2 U*	*0.19 U*	*0.19 U*	*0.18 U*	*0.21 U*	*0.18 U*	*0.18 U*	**0.05 J**	*0.18 U*	*0.18 U*	**0.3**	*0.18 U*
Anthracene	mg/kg	230,000	**5.4**	**0.086**	**0.019 J**	**0.22**	**0.0018 J**	**1.6**	**4.1**	**0.38**	**0.2**	**0.2**	**0.0035 J**	**0.19**	**0.035**	**0.016**	**0.041**	**0.62**
Benz[a]anthracene	mg/kg	21	**19**	**0.2**	**0.078**	**1.6**	**0.0047 J**	**8**	**16**	**2**	**0.73**	**0.42**	**0.0034 J**	**0.34**	**0.12**	**0.022**	**0.21**	**1.9**
Benzaldehyde	mg/kg	120,000	*1.2 U*	*0.23 U*	*1.3 U*	*0.26 U*	*0.26 U*	*0.25 U*	*0.25 U*	*0.24 U*	*0.28 U*	*0.24 U*	*0.24 U*	*0.25 U*	*0.24 U*	*0.24 U*	*0.24 U*	*0.24 U*
Benzo[a]pyrene	mg/kg	2.1	**17**	**0.19**	**0.096**	**0.61**	**0.0061 J**	**6**	**14**	**2.1**	**0.7**	**0.32**	**0.0025 J**	**0.33**	**0.097**	**0.015**	**0.17**	**1.5**
Benzo[b]fluoranthene	mg/kg	21	**22**	**0.27**	**0.13**	**1.3**	**0.01**	**7.6**	**17**	**2.6**	**0.93**	**0.5**	**0.0051 J**	**0.43**	**0.19**	**0.026**	**0.26**	**2.3**
Benzo[g,h,i]perylene	mg/kg		**7.2**	**0.12**	**0.09**	**0.4**	**0.0056 J**	**5**	**8.9**	**1.6**	**0.48**	**0.18**	**0.0028 J**	**0.15**	**0.078**	**0.011**	**0.1**	**1**
Benzo[k]fluoranthene	mg/kg	210	**5.9**	**0.074**	**0.033 J**	**0.26**	**0.0035 J**	**2.8**	**6.2**	**0.85**	**0.3**	**0.15**	**0.0016 J**	**0.11**	**0.056**	**0.008**	**0.064**	**0.68**
bis(2-Ethylhexyl)phthalate	mg/kg	160	*0.89 U*	*0.18 U*	*1 U*	*0.19 U*	*0.2 U*	*0.19 U*	*0.19 U*	*0.18 U*	*0.21 U*	*0.18 U*	*0.18 U*	*0.19 U*	*0.18 U*	*0.18 U*	*0.18 U*	*0.18 U*
Carbazole	mg/kg		**0.98**	**0.072 J**	**0.17 J**	**0.12 J**	*0.2 U*	**0.61**	**0.97**	**0.17 J**	**0.14 J**	**0.14 J**	*0.18 U*	**0.23**	*0.18 U*	*0.18 U*	**0.054 J**	**0.36**
Chrysene	mg/kg	2,100	**15**	**0.18**	**0.19**	**1.2**	**0.0058 J**	**5.4**	**13**	**1.7**	**0.67**	**0.53**	**0.0058 J**	**0.3**	**0.17**	**0.028**	**0.3**	**1.8**
Dibenz[a,h]anthracene	mg/kg	2.1	**2.4**	**0.027**	**0.021 J**	**0.079**	**0.0012 J**	**0.97**	**2.7**	**0.37**	**0.099**	**0.052**	**0.00095 J**	**0.045**	**0.022**	**0.003 J**	**0.035**	**0.29**
Fluoranthene	mg/kg	30,000	**33**	**0.4**	**0.15**	**2.9**	**0.0076 J**	**13**	**22**	**3.3**	**1.9**	**1.4**	**0.0077**	**0.68**	**0.23**	**0.062**	**0.21**	**4**
Fluorene	mg/kg	30,000	**1.6**	**0.025**	**0.016 J**	**0.026**	*0.008 U*	**0.33**	**1.2**	**0.066 J**	**0.085**	**0.14**	**0.0012 J**	**0.18**	**0.0045 J**	**0.0096**	*0.0074 U*	**0.096**
Indeno[1,2,3-c,d]pyrene	mg/kg	21	**10**	**0.14**	**0.067**	**0.48**	**0.0068 J**	**6**	**12**	**2**	**0.61**	**0.23**	**0.0036 J**	**0.21**	**0.089**	**0.012**	**0.1**	**1.4**
Naphthalene	mg/kg	8.6	**4.8**	**0.15**	**0.061**	**0.25**	**0.012**	**3.6**	**2.1**	**0.66**	**0.28**	**2.7**	**0.032**	**12**	**0.16**	**0.29**	**2.2**	**0.25**
Pentachlorophenol	mg/kg	4	*0.71 U*	*0.14 U*	*0.8 U*	*0.16 U*	*0.16 U*	*0.15 U*	*0.15 U*	*0.14 U*	*0.17 R*	*0.14 U*	*0.14 U*	*0.15 U*	*0.15 U*	*0.14 UJ*	*0.15 UJ*	*0.14 U*
Phenanthrene	mg/kg		**19**	**0.26**	**0.14**	**1.3**	**0.0077 J**	**6**	**12**	**1.3**	**1.5**	**2.1**	**0.018**	**0.66**	**0.19**	**0.089**	**1**	**2.8**
Phenol	mg/kg	250,000	**0.42 J**	*0.18 U*	*1 U*	*0.19 U*	*0.2 U*	**0.07 J**	**0.083 J**	*0.18 U*	*0.21 R*	*0.18 U*	*0.18 U*	*0.19 R*	*0.18 U*	*0.18 U*	*0.18 U*	*0.18 U*
Pyrene	mg/kg	23,000	**26**	**0.34**	**0.16**	**2.5**	**0.0053 J**	**12**	**18**	**2.8**	**1.5**	**1.2**	**0.0058 J**	**0.49**	**0.23**	**0.066**	**0.22**	**3.7**
PCBs																		
Aroclor 1242	mg/kg	0.97	*N/A*	*N/A*	*0.0592 U*	*N/A*	*N/A*	**0.0453 J**	*N/A*	*N/A*	*0.0624 U*	*N/A*	*N/A*	*0.0579 U*	*N/A*	*N/A*	*0.0523 U*	*N/A*
Aroclor 1254	mg/kg	0.97	*N/A*	*N/A*	*0.0592 U*	*N/A*	*N/A*	**0.348**	*N/A*	*N/A*	**0.015 J**	*N/A*	*N/A*	**0.0341 J**	*N/A*	*N/A*	**0.109**	*N/A*
Aroclor 1260	mg/kg	0.99	*N/A*	*N/A*	*0.0592 U*	*N/A*	*N/A*	**0.102**	*N/A*	*N/A*	*0.0624 U*	*N/A*	*N/A*	**0.0523 J**	*N/A*	*N/A*	*0.0523 U*	*N/A*
Aroclor 1268	mg/kg		*N/A*	*N/A*	*0.0592 U*	*N/A*	*N/A*	**0.0366 J**	*N/A*	*N/A*	*0.0624 U*	*N/A*	*N/A*	**0.0193 J**	*N/A*	*N/A*	*0.0523 U*	*N/A*
PCBs (total)	mg/kg	0.97	*N/A*	*N/A*	*0.0592 U*	*N/A*	*N/A*	**0.532 J**	*N/A*	*N/A*	**0.015 J**	*N/A*	*N/A*	**0.106 J**	*N/A*	*N/A*	**0.109**	*N/A*
TPH/Oil & Grease																		
Diesel Range Organics	mg/kg	6,200	**350**	**18 J**	**470**	**44**	**4.3 J**	**550**	**160**	**180**	*30 B*	**110**	**69**	**530**	**92**	**190**	**84**	**260**
Gasoline Range Organics	mg/kg	6,200	**4.8**	**2.2 J**	**1.7 J**	**5.8**	**2.5 J**	**4.2**	**3 J**	**4**	*1.4 B*	**10**	**4.2**	**30**	**6.2**	**4.3**	**8.2**	*2.9 U*
Oil & Grease	mg/kg	6,200	**1,400**	**246**	**358**	**1,010**	**818**	**738**	**1,260**	**1,470**	**291 J-**	**794 J-**	**1,320 J-**	**1,050 J-**	*224 UJ*	**479 J-**	**785 J-**	**1,300 J-**

Detections in bold
Values in red indicate an exceedance of the Project Action Limit (PAL)
N/A indicates that the parameter was not analyzed for this sample
* indicates non-validated data
^ indicates PAHs analyzed for SIM

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
J: The positive result reported for this analyte is a quantitative estimate.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.
J-: The positive result reported for this analyte is a quantitative estimate but may be biased low.
B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.

Table 3 - Container Terminal
Summary of Organics Detected in Soil

Parameter	Units	PAL	CT-019-SB-1* 10/16/2023	CT-019-SB-8* 10/16/2023	CT-019-SB-10* 10/16/2023	CT-020-SB-1 9/29/2023	CT-020-SB-9 9/29/2023	CT-020-SB-10 9/29/2023	CT-021-SB-1* 10/16/2023	CT-021-SB-8* 10/16/2023	CT-021-SB-10* 10/16/2023	CT-022-SB-1 9/29/2023	CT-022-SB-9 9/29/2023	CT-023-SB-1 10/11/2023	CT-023-SB-8 10/11/2023	CT-024-SB-1* 9/21/2023	CT-024-SB-9* 9/21/2023
Volatile Organic Compound																	
1,1,1-Trichloroethane	mg/kg	36,000	*0.00062 U*	*0.00061 U*	*N/A*	*N/A*	*N/A*	*0.00054 U*	*N/A*	*0.00039 U*	*0.00039 U*	*N/A*	*N/A*	*N/A*	*0.00044 U*	*0.00054 U*	*N/A*
1,1-Dichloroethane	mg/kg	16	*0.0012 U*	*0.0012 U*	*N/A*	*N/A*	*N/A*	*0.0011 U*	*N/A*	*0.00078 U*	*0.00079 U*	*N/A*	*N/A*	*N/A*	*0.00087 U*	*0.0011 U*	*N/A*
1,2-Dichlorobenzene	mg/kg	9,300	*0.0025 U*	*0.0024 U*	*N/A*	*N/A*	*N/A*	*0.0021 U*	*N/A*	*0.0016 U*	*0.0016 U*	*N/A*	*N/A*	*N/A*	*0.0017 U*	**0.00021 J**	*N/A*
2-Butanone (MEK)	mg/kg	190,000	*0.012 U*	*0.012 U*	*N/A*	*N/A*	*N/A*	*0.011 U*	*N/A*	*0.0078 U*	*0.0079 U*	*N/A*	*N/A*	*N/A*	*0.0087 U*	*0.011 U*	*N/A*
Acetone	mg/kg	670,000	*0.031 U*	*0.03 U*	*N/A*	*N/A*	*N/A*	*0.027 U*	*N/A*	**0.014 J**	*0.02 U*	*N/A*	*N/A*	*N/A*	**0.029**	**0.022 J**	*N/A*
Benzene	mg/kg	5.1	*0.00062 U*	**0.00047 J**	*N/A*	*N/A*	*N/A*	*0.00054 U*	*N/A*	**0.0003 J**	**0.00026 J**	*N/A*	*N/A*	*N/A*	**0.00093**	**0.00029 J**	*N/A*
Carbon disulfide	mg/kg	3,500	*0.012 U*	*0.012 U*	*N/A*	*N/A*	*N/A*	*0.011 U*	*N/A*	**0.0071 J**	*0.0079 U*	*N/A*	*N/A*	*N/A*	*0.0087 U*	**0.007 J**	*N/A*
Chloroform	mg/kg	1.4	*0.0018 U*	*0.0018 U*	*N/A*	*N/A*	*N/A*	*0.0016 U*	*N/A*	*0.0012 U*	*0.0012 U*	*N/A*	*N/A*	*N/A*	*0.0013 U*	*0.0016 U*	*N/A*
Cyclohexane	mg/kg	27,000	*0.012 U*	*0.012 U*	*N/A*	*N/A*	*N/A*	*0.011 U*	*N/A*	*0.0078 U*	*0.0079 U*	*N/A*	*N/A*	*N/A*	*0.0087 U*	*0.011 U*	*N/A*
Ethylbenzene	mg/kg	25	*0.0012 U*	*0.0012 U*	*N/A*	*N/A*	*N/A*	*0.0011 U*	*N/A*	**0.0027**	**0.00018 J**	*N/A*	*N/A*	*N/A*	*0.00087 U*	*0.0011 U*	*N/A*
Isopropylbenzene	mg/kg	9,900	*0.0012 U*	*0.0012 U*	*N/A*	*N/A*	*N/A*	*0.0011 U*	*N/A*	**0.0013**	*0.00079 U*	*N/A*	*N/A*	*N/A*	*0.00087 U*	*0.0011 U*	*N/A*
Methyl Acetate	mg/kg	1,200,000	*0.0049 U*	*0.0049 U*	*N/A*	*N/A*	*N/A*	*0.0043 U*	*N/A*	*0.0031 U*	*0.0031 U*	*N/A*	*N/A*	*N/A*	*0.0035 U*	*0.0043 U*	*N/A*
Styrene	mg/kg	35,000	*0.0012 U*	*0.0012 U*	*N/A*	*N/A*	*N/A*	*0.0011 U*	*N/A*	**0.00064 J**	*0.00079 U*	*N/A*	*N/A*	*N/A*	*0.00087 U*	*0.0011 U*	*N/A*
Tetrachloroethene	mg/kg	100	*0.00062 U*	*0.00061 U*	*N/A*	*N/A*	*N/A*	*0.00054 U*	*N/A*	*0.00039 U*	*0.00039 U*	*N/A*	*N/A*	*N/A*	*0.00044 U*	*0.00054 U*	*N/A*
Toluene	mg/kg	47,000	*0.0012 U*	*0.0012 U*	*N/A*	*N/A*	*N/A*	*0.0011 U*	*N/A*	**0.00074 J**	*0.00079 U*	*N/A*	*N/A*	*N/A*	**0.0011**	*0.0011 U*	*N/A*
Xylenes	mg/kg	2,800	*0.0012 U*	*0.0012 U*	*N/A*	*N/A*	*N/A*	*0.0011 U*	*N/A*	**0.013**	**0.00078 J**	*N/A*	*N/A*	*N/A*	**0.00091 J**	*0.0011 U*	*N/A*
Semi-Volatile Organic Compound^																	
1,1-Biphenyl	mg/kg	200	*0.47 U*	**0.23 J**	*N/A*	**0.054 J**	**0.08 J**	*0.4 U*	*0.43 U*	**0.12 J**	**0.27 J**	*0.41 U*	*0.4 U*	**0.16 J**	**0.11 J**	**1.9**	*1.2 U*
2,4-Dimethylphenol	mg/kg	16,000	*0.21 U*	*0.92 U*	*N/A*	*0.18 U*	*0.18 U*	*0.17 U*	*0.19 U*	*0.18 U*	*0.17 U*	*0.18 U*	*0.17 U*	*0.18 R*	*0.18 U*	*0.19 U*	*0.53 U*
2,4-Dinitrotoluene	mg/kg	7.4	*0.21 U*	*0.92 U*	*N/A*	*0.18 UJ*	*0.18 UJ*	*0.17 UJ*	*0.19 U*	*0.18 U*	**0.19**	*0.18 UJ*	*0.17 UJ*	*0.18 U*	*0.18 U*	*0.19 U*	*0.53 U*
2-Methylnaphthalene	mg/kg	3,000	**0.15**	**2.1**	*N/A*	**0.3**	**0.56**	**0.0099**	**0.073**	**0.93**	**1.2**	**0.016**	**0.048**	**0.21**	**0.17**	**8.6**	**0.04**
2-Methylphenol	mg/kg	41,000	*0.21 U*	*0.92 U*	*N/A*	*0.18 U*	*0.18 U*	*0.17 U*	*0.19 U*	*0.18 U*	*0.17 U*	*0.18 U*	*0.17 U*	*0.18 R*	*0.18 U*	*0.19 U*	*0.53 U*
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	*0.3 U*	*1.3 U*	*N/A*	*0.26 U*	**0.05 J**	*0.25 U*	*0.27 U*	*0.26 U*	*0.25 U*	*0.26 U*	*0.25 U*	*0.26 R*	*0.26 U*	*0.27 U*	*0.77 U*
Acenaphthene	mg/kg	45,000	**0.0034 J**	**0.071 J**	*N/A*	**0.07**	**0.033**	*0.007 U*	**0.029**	**0.35**	**0.53**	*0.0072 U*	*0.0069 U*	**0.1**	**0.024**	**1.7**	**0.0024 J**
Acenaphthylene	mg/kg	45,000	**0.036**	**0.48**	*N/A*	**0.36**	**0.26**	**0.0033 J**	**0.11**	**0.05**	**0.089**	*0.0072 U*	**0.0084**	**0.12**	**0.082**	**5.2**	**0.0082**
Acetophenone	mg/kg	120,000	*0.21 U*	*0.92 U*	*N/A*	*0.18 U*	*0.18 UJ*	*0.17 UJ*	*0.19 U*	*0.18 U*	*0.17 U*	*0.18 U*	*0.17 U*	**0.038 J**	*0.18 UJ*	*0.19 U*	*0.53 U*
Anthracene	mg/kg	230,000	**0.023**	**1.2**	*N/A*	**0.41**	**0.25**	**0.004 J**	**0.17**	**0.61**	**1**	*0.0073 U*	**0.011**	**0.44**	**0.073**	**5.3**	**0.0097**
Benz[a]anthracene	mg/kg	21	**0.12**	**4.1**	*N/A*	**1.3**	**0.97**	**0.016**	**0.7**	**0.29**	**0.31**	**0.089**	**0.0076**	**1**	**0.61**	**10**	**0.024**
Benzaldehyde	mg/kg	120,000	*0.27 U*	*1.2 U*	*N/A*	*0.24 U*	*0.24 UJ*	*0.23 UJ*	*0.25 U*	*0.24 U*	*0.23 U*	*0.24 U*	*0.23 U*	*0.24 U*	*0.24 UJ*	*0.25 U*	*0.7 U*
Benzo[a]pyrene	mg/kg	2.1	**0.091**	**2.9**	**2.4**	**1.3**	**1**	**0.018**	**0.49**	**0.2**	**0.088**	**0.19**	**0.014**	**0.91**	**1**	**8.3**	**0.026**
Benzo[b]fluoranthene	mg/kg	21	**0.11**	**3.4**	*N/A*	**1.7**	**1.4**	**0.028**	**0.6**	**0.25**	**0.13**	**0.23**	**0.014**	**1.2**	**1.2**	**9.8**	**0.035**
Benzo[g,h,i]perylene	mg/kg		**0.061**	**1.4**	*N/A*	**0.75**	**0.56**	**0.013**	**0.29**	**0.11**	**0.047**	**0.12**	**0.013**	**0.49**	**0.56**	**3.4**	**0.019**
Benzo[k]fluoranthene	mg/kg	210	**0.039**	**1.1**	*N/A*	**0.55**	**0.43**	**0.0077**	**0.21**	**0.082**	**0.04**	**0.083**	*0.0069 U*	**0.45**	**0.4**	**3.9**	**0.012**
bis(2-Ethylhexyl)phthalate	mg/kg	160	*0.21 U*	*0.92 U*	*N/A*	*0.18 U*	*0.18 UJ*	*0.17 UJ*	*0.19 U*	*0.18 U*	*0.17 U*	*0.18 U*	*0.17 U*	*0.18 U*	*0.18 UJ*	*0.19 U*	*0.53 U*
Carbazole	mg/kg		*0.21 U*	**0.56 J**	*N/A*	**0.072 J**	**0.075 J**	*0.17 U*	*0.19 U*	**0.039 J**	**0.04 J**	*0.18 U*	*0.17 U*	**0.11 J**	**0.21**	**4.8**	*0.53 U*
Chrysene	mg/kg	2,100	**0.078**	**2.6**	*N/A*	**1.2**	**0.9**	**0.017**	**0.46**	**0.27**	**0.31**	**0.12**	**0.0093**	**0.88**	**0.68**	**9.2**	**0.027**
Dibenz[a,h]anthracene	mg/kg	2.1	**0.014**	**0.49**	*N/A*	**0.16**	**0.16**	**0.0034 J**	**0.089**	**0.035**	**0.015**	**0.021**	*0.0069 U*	**0.18**	**0.15**	**0.78**	**0.0045 J**
Fluoranthene	mg/kg	30,000	**0.17**	**5**	*N/A*	**3.4**	**1.5**	**0.017**	**0.9**	**0.85**	**1.1**	**0.12**	**0.027**	**2**	**0.68**	**27**	**0.052**
Fluorene	mg/kg	30,000	**0.007 J**	**0.48**	*N/A*	**0.22**	**0.055**	**0.0015 J**	**0.051**	**0.44**	**0.55**	*0.0073 U*	**0.007**	**0.087**	**0.016**	**16**	**0.012**
Indeno[1,2,3-c,d]pyrene	mg/kg	21	**0.076**	**2.1**	*N/A*	**0.82**	**0.74**	**0.016**	**0.38**	**0.16**	**0.061**	**0.14**	**0.016**	**0.65**	**0.7**	**4.1**	**0.024**
Naphthalene	mg/kg	8.6	**0.15**	**2.3**	*N/A*	**0.6**	**1.1**	**0.013**	**0.29**	**0.34**	**0.24**	**0.04**	**0.51**	**0.4**	**0.74**	**19**	**0.069**
Pentachlorophenol	mg/kg	4	*0.16 U*	*0.74 U*	*N/A*	*0.14 U*	*0.15 U*	*0.14 U*	*0.15 U*	*0.14 U*	*0.14 U*	*0.14 U*	*0.14 U*	*0.14 R*	*0.14 U*	*3 U*	*0.43 U*
Phenanthrene	mg/kg		**0.11**	**4.1**	*N/A*	**2.3**	**0.79**	**0.015**	**0.48**	**2.4**	**5.7**	**0.16**	**0.058**	**1.1**	**0.57**	**43**	**0.06**
Phenol	mg/kg	250,000	*0.21 U*	*0.92 U*	*N/A*	*0.18 U*	*0.18 U*	*0.17 U*	*0.19 U*	*0.18 U*	*0.17 U*	*0.18 U*	*0.17 U*	*0.18 R*	*0.18 U*	*0.19 U*	*0.53 U*
Pyrene	mg/kg	23,000	**0.14**	**3.6**	*N/A*	**2.6**	**1.2**	**0.016**	**0.77**	**1**	**1.8**	**0.1**	**0.021**	**1.7**	**0.68**	**19**	**0.037**
PCBs																	
Aroclor 1242	mg/kg	0.97	*0.0586 U*	*N/A*	*N/A*	*0.0531 U*	*N/A*	*N/A*	**0.0254 J**	*N/A*	*N/A*	*0.0516 U*	*N/A*	**0.0318 J**	*N/A*	*0.0564 U*	*N/A*
Aroclor 1254	mg/kg	0.97	**0.589**	*N/A*	*N/A*	*0.0531 U*	*N/A*	*N/A*	**0.0308 J**	*N/A*	*N/A*	**0.0105 J**	*N/A*	**0.0592**	*N/A*	*0.0564 U*	*N/A*
Aroclor 1260	mg/kg	0.99	*0.0586 U*	*N/A*	*N/A*	**0.0529 J**	*N/A*	*N/A*	**0.0442 J**	*N/A*	*N/A*	*0.0516 U*	*N/A*	**0.0502 J**	*N/A*	*0.0564 U*	*N/A*
Aroclor 1268	mg/kg		*0.0586 U*	*N/A*	*N/A*	*0.0531 U*	*N/A*	*N/A*	**0.0872**	*N/A*	*N/A*	*0.0516 U*	*N/A*	**0.0424 J**	*N/A*	*0.0564 U*	*N/A*
PCBs (total)	mg/kg	0.97	**0.589**	*N/A*	*N/A*	**0.0529 J**	*N/A*	*N/A*	**0.188 J**	*N/A*	*N/A*	**0.0105 J**	*N/A*	**0.184 J**	*N/A*	*0.0564 U*	*N/A*
TPH/Oil & Grease																	
Diesel Range Organics	mg/kg	6,200	**56**	**120**	*N/A*	**140**	**74**	*4.2 B*	**47**	**160**	**330**	*5.3 B*	*4.6 B*	**98**	**90**	**450**	**3.5 J**
Gasoline Range Organics	mg/kg	6,200	**7.2**	**6**	*N/A*	*1.9 B*	*0.8 B*	*0.76 B*	*2.7 U*	**11**	**1.8 J**	*1.8 B*	*0.82 B*	*2.7 U*	**1.6 J**	**5.7**	*0.82 B*
Oil & Grease	mg/kg	6,200	**534**	**724**	*N/A*	**663 J-**	**820 J-**	**237 J-**	**570**	**940**	**412**	*220 UJ*	*212 UJ*	**771 J-**	**408 J-**	**969**	**266**

Detections in bold
Values in red indicate an exceedance of the Project Action Limit (PAL)
N/A indicates that the parameter was not analyzed for this sample
* indicates non-validated data
^ indicates PAHs analyzed for SIM

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
J: The positive result reported for this analyte is a quantitative estimate.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.
J-: The positive result reported for this analyte is a quantitative estimate but may be biased low.
B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.

Table 4 - Container Terminal
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	CT-001-SB-1	CT-001-SB-3	CT-002-SB-1*	CT-002-SB-4*	CT-003-SB-1*	CT-003-SB-3*	CT-003-SB-10*	CT-004-SB-1*	CT-004-SB-9*	CT-004-SB-10*	CT-005-SB-1
			9/11/2023	9/11/2023	10/16/2023	10/16/2023	10/16/2023	10/16/2023	10/16/2023	10/13/2023	10/13/2023	10/13/2023	9/11/2023
Metals													
Aluminum	mg/kg	1,100,000	**7,440**	**3,440**	**13,300**	**16,500**	**12,200**	**26,100**	*N/A*	**5,210**	**34,300**	**32,500**	**22,500**
Antimony	mg/kg	470	*4.89 U*	*4.28 U*	*4.59 U*	*4.27 U*	*4.22 U*	*4.54 U*	*N/A*	*4.24 U*	*4.55 U*	*4.14 U*	**0.596 J**
Arsenic	mg/kg	3	*0.494 B*	**1.77**	**2.71**	**1.41**	**1.75**	**6.34**	**21.7**	**1.31**	*0.91 U*	**3.47**	*0.955 U*
Barium	mg/kg	220,000	**24.8**	**37.7**	**31**	**167**	**76.8**	**42.1**	*N/A*	**25**	**231**	**182**	**30.6**
Beryllium	mg/kg	2,300	*0.489 U*	**0.068 J**	**0.316 J**	**1.5**	**2**	**0.665**	*N/A*	**0.172 J**	**2.34**	**2.15**	*0.477 U*
Cadmium	mg/kg	100	**8.54 J+**	**0.18 J+**	**0.606 J**	*0.854 U*	*0.844 U*	**0.303 J**	*N/A*	*0.847 U*	*0.91 U*	*0.827 U*	**4.87 J+**
Chromium	mg/kg	1,800,000	**811**	**7.76**	**1,160**	**12.5**	**94.3**	**29.2**	*N/A*	**19.9**	**1.71**	**3.41**	**638**
Chromium VI	mg/kg	6.3	**12.2 J-**	**0.244 J-**	**7.88**	*0.87 U*	**5.58**	*0.938 U*	*N/A*	*0.856 U*	*0.928 U*	*0.838 U*	**4.02 J-**
Cobalt	mg/kg	350	**0.168 J**	**0.396 J**	*1.83 U*	**1 J**	**1.07 J**	**3.29**	*N/A*	**3.6**	*1.82 U*	**4.2**	*1.91 U*
Copper	mg/kg	47,000	**61.4 J-**	**7.34 J-**	**7.62**	**9.22**	**17.3**	**26.5**	*N/A*	**16.6**	**40.2**	**155**	**7.4 J-**
Iron	mg/kg	820,000	**103,000**	**3,150**	**158,000**	**5,710**	**11,500**	**35,400**	*N/A*	**7,820**	**2,050**	**49,200**	**116,000**
Lead	mg/kg	800	**51.9**	**40.4**	**5.08**	**3.96 J**	**19.8**	**46**	*N/A*	**12.9**	*4.55 U*	*4.14 U*	**6.14**
Manganese	mg/kg	26,000	**17,600**	**40.3**	**22,800**	**2,030**	**2,500**	**670**	*N/A*	**160**	**2,540**	**2,710**	**24,400**
Mercury	mg/kg	350	*0.098 U*	*0.075 U*	*0.078 U*	*0.074 U*	**0.059 J**	**0.117**	*N/A*	*0.072 U*	*0.075 U*	*0.071 U*	*0.092 U*
Nickel	mg/kg	22,000	**39.9 J-**	**2.8 J-**	**6.69**	**2.56**	**8.38**	**19.7**	*N/A*	**10.2**	**0.375 J**	**0.91 J**	**7.06 J-**
Selenium	mg/kg	5,800	*1.96 U*	*1.71 U*	*1.83 U*	**0.781 J**	**0.818 J**	**2.79**	*N/A*	*1.69 U*	**4.4**	**5.36**	*1.91 U*
Silver	mg/kg	5,800	*1.22 U*	*0.428 U*	**1.93**	**0.612**	**0.612**	**0.319 J**	*N/A*	*0.424 U*	*0.455 U*	*0.414 U*	*4.77 U*
Thallium	mg/kg	12	*1.96 UJ*	*0.76 B*	**0.412 J**	*1.71 U*	**0.436 J**	**0.724 J**	*N/A*	*1.69 U*	*1.82 U*	*1.65 U*	**3.03 J-**
Vanadium	mg/kg	5,800	**370**	**8.55**	**782**	**11.6**	**101**	**27.1**	*N/A*	**7.14**	**15.7**	**32.4**	**428**
Zinc	mg/kg	350,000	**33,800**	**30.2**	**30.2**	**6.61**	**155**	**64**	*N/A*	**65.4**	**2.37 J**	**1.88 J**	**639**
Other													
Cyanide, Total	mg/kg	150	**0.93 J+**	**1.2 J+**	**3.6**	**0.49 J**	**1.5**	**1.8**	*N/A*	**1.4**	**89**	**16**	**0.65 J+**

Detections in bold
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J-: The positive result reported for this analyte is a quantitative estimate but may be biased low.
B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.

Table 4 - Container Terminal
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	CT-005-SB-3	CT-006-SB-1*	CT-006-SB-6*	CT-006-SB-10*	CT-007-SB-1*	CT-007-SB-3*	CT-007-SB-10*	CT-008-SB-1	CT-008-SB-3	CT-008-SB-10*	CT-009-SB-1*
			9/11/2023	10/13/2023	10/13/2023	10/13/2023	10/13/2023	10/13/2023	10/13/2023	10/11/2023	10/11/2023	10/11/2023	10/12/2023
Metals													
Aluminum	mg/kg	1,100,000	**13,200**	**9,890**	**15,200**	*N/A*	**9,170**	**4,920**	*N/A*	**5,250**	**8,020**	*N/A*	**20,000**
Antimony	mg/kg	470	**0.8 J**	*4.15 U*	**3.35 J**	*N/A*	*4.37 U*	*5.11 U*	*N/A*	**1.41 J**	*4.26 U*	*N/A*	*4.32 U*
Arsenic	mg/kg	3	*7.58 B*	**6.03**	**6.59**	**6.66**	**4.37**	**14.2**	**13.4**	**6.35**	**4.98**	**4.24**	**7.46**
Barium	mg/kg	220,000	**29**	**36.7**	**147**	*N/A*	**34**	**25.2**	*N/A*	**76.6**	**119**	*N/A*	**132**
Beryllium	mg/kg	2,300	*0.43 U*	**0.164 J**	**1.34**	*N/A*	**0.202 J**	**0.621**	*N/A*	**0.613**	**0.81**	*N/A*	**2.73**
Cadmium	mg/kg	100	**8.86 J+**	**0.126 J**	*0.982 U*	*N/A*	*0.874 U*	**1.13**	*N/A*	**4.88**	**2.72**	*N/A*	**0.869**
Chromium	mg/kg	1,800,000	**879**	**1,030**	**64.9**	*N/A*	**904**	**88.7**	*N/A*	**660**	**1,230**	*N/A*	**56.7**
Chromium VI	mg/kg	6.3	**9.28 J-**	**7.5**	*5.2 U*	*N/A*	**14**	*1.03 U*	*N/A*	**4 J-**	**1.34 J-**	*N/A*	**0.26 J**
Cobalt	mg/kg	350	*1.72 U*	**1.38 J**	**11.1**	*N/A*	**1.61 J**	**35.9**	*N/A*	**7.7**	**6.41**	*N/A*	**36.4**
Copper	mg/kg	47,000	**13.2 J-**	**35.3**	**112**	*N/A*	**24.4**	**109**	*N/A*	**173 J**	**88.5 J**	*N/A*	**77.2**
Iron	mg/kg	820,000	**173,000**	**166,000**	**34,600**	*N/A*	**144,000**	**85,500**	*N/A*	**99,600**	**132,000**	*N/A*	**21,400**
Lead	mg/kg	800	**4.73**	**4.59**	**230**	*N/A*	**2.41 J**	**172**	*N/A*	**206 J**	**205 J**	*N/A*	**42.6**
Manganese	mg/kg	26,000	**31,400**	**26,600**	**1,420**	*N/A*	**23,500**	**1,070**	*N/A*	**25,500**	**31,700**	**23,400**	**3,380**
Mercury	mg/kg	350	*0.084 U*	*0.075 U*	**0.339**	*N/A*	*0.073 U*	**0.186**	*N/A*	*0.082 U*	*0.072 U*	*N/A*	**0.092**
Nickel	mg/kg	22,000	**12.9 J-**	**24.1**	**49.4**	*N/A*	**17.6**	**25.9**	*N/A*	**31.2 J**	**35.8 J**	*N/A*	**9.16**
Selenium	mg/kg	5,800	*1.72 U*	*1.66 U*	**3.45**	*N/A*	*1.75 U*	**3**	*N/A*	*1.97 UJ*	*1.7 UJ*	*N/A*	**7.19**
Silver	mg/kg	5,800	*4.3 U*	**2.83**	**0.322 J**	*N/A*	**2.51**	**0.762**	*N/A*	**2.26**	**2.89**	*N/A*	**1.01**
Thallium	mg/kg	12	**3.72 J-**	*8.29 U*	**0.819 J**	*N/A*	*8.74 U*	*2.04 U*	*N/A*	*1.97 UJ*	*1.7 UJ*	*N/A*	**0.614 J**
Vanadium	mg/kg	5,800	**590**	**437**	**20.1**	*N/A*	**356**	**103**	*N/A*	**3,530**	**5,860**	**5,100**	**222**
Zinc	mg/kg	350,000	**25.1**	**28.2**	**469**	*N/A*	**22.2**	**624**	*N/A*	**731**	**470**	*N/A*	**179**
Other													
Cyanide, Total	mg/kg	150	*1.1 U*	**0.72 J**	**6.4**	*N/A*	**0.35 J**	**4.8**	*N/A*	*1.3 U*	**3.7**	*N/A*	**0.88 J**

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B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.

Table 4 - Container Terminal
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	CT-009-SB-3* 10/12/2023	CT-009-SB-10* 10/12/2023	CT-010-SB-1* 10/12/2023	CT-010-SB-7* 10/12/2023	CT-010-SB-10* 10/12/2023	CT-011-SB-1* 10/12/2023	CT-011-SB-4* 10/12/2023	CT-011-SB-10* 10/12/2023	CT-012-SB-1* 10/12/2023	CT-012-SB-9* 10/12/2023	CT-012-SB-10* 10/12/2023
Metals													
Aluminum	mg/kg	1,100,000	**14,500**	*N/A*	**15,400**	**10,100**	*N/A*	**40,000**	**24,900**	*N/A*	**8,600**	**9,770**	*N/A*
Antimony	mg/kg	470	**0.564 J**	*N/A*	**0.756 J**	**16.8**	*N/A*	**0.378 J**	*4.36 U*	*N/A*	**9.94**	**4.52**	*N/A*
Arsenic	mg/kg	3	**8.48**	**3.12**	**12.5**	**12.4**	**6.09**	**1.41**	**3.91**	*0.429 U*	**7.15**	**8.99**	**1.14**
Barium	mg/kg	220,000	**167**	*N/A*	**186**	**192**	*N/A*	**364**	**263**	*N/A*	**168**	**198**	*N/A*
Beryllium	mg/kg	2,300	**1.33**	*N/A*	**1.37**	**1.34**	*N/A*	**6.46**	**2.04**	*N/A*	**0.815**	**0.877**	*N/A*
Cadmium	mg/kg	100	**3.79**	*N/A*	**1.58**	**8.62**	*N/A*	*0.965 U*	**0.371 J**	*N/A*	**5.04**	**10.8**	*N/A*
Chromium	mg/kg	1,800,000	**540**	*N/A*	**350**	**522**	*N/A*	**0.885 J**	**306**	*N/A*	**610**	**559**	*N/A*
Chromium VI	mg/kg	6.3	**0.844 J**	*N/A*	**0.262 J**	**1.01**	*N/A*	*0.998 U*	*0.893 U*	*N/A*	**0.535 J**	**1.21**	*N/A*
Cobalt	mg/kg	350	**12.1**	*N/A*	**5.84**	**17.7**	*N/A*	*1.93 U*	**1.6 J**	*N/A*	**9.04**	**17.7**	*N/A*
Copper	mg/kg	47,000	**116**	*N/A*	**70.5**	**133**	*N/A*	**7.5**	**14.1**	*N/A*	**84.8**	**105**	*N/A*
Iron	mg/kg	820,000	**128,000**	*N/A*	**74,600**	**122,000**	*N/A*	**855**	**66,200**	*N/A*	**95,200**	**196,000**	*N/A*
Lead	mg/kg	800	**205**	*N/A*	**211**	**825**	**356**	**4.79 J**	**11.6**	*N/A*	**679**	**211**	*N/A*
Manganese	mg/kg	26,000	**16,900**	*N/A*	**7,280**	**16,000**	*N/A*	**3,650**	**7,840**	*N/A*	**19,200**	**17,900**	*N/A*
Mercury	mg/kg	350	**0.194**	*N/A*	**0.239**	**3.57**	*N/A*	*0.08 U*	*0.072 U*	*N/A*	**0.211**	**0.07**	*N/A*
Nickel	mg/kg	22,000	**31.5**	*N/A*	**32**	**27.8**	*N/A*	**0.61 J**	**7.67**	*N/A*	**25.3**	**41**	*N/A*
Selenium	mg/kg	5,800	**1.15 J**	*N/A*	**0.357 J**	*1.74 U*	*N/A*	**4.25**	**2.02**	*N/A*	*1.67 U*	**0.275 J**	*N/A*
Silver	mg/kg	5,800	**1.65**	*N/A*	**1.22**	**3.25**	*N/A*	**1.26**	**1.28**	*N/A*	**2.33**	**0.843**	*N/A*
Thallium	mg/kg	12	**2.02**	*N/A*	**1.2 J**	**4.64**	*N/A*	*1.93 U*	*1.74 U*	*N/A*	**3.9**	**3.48**	*N/A*
Vanadium	mg/kg	5,800	**1,490**	*N/A*	**658**	**2,800**	*N/A*	**4.5**	**228**	*N/A*	**2,620**	**2,970**	*N/A*
Zinc	mg/kg	350,000	**574**	*N/A*	**662**	**1,720**	*N/A*	**1.61 J**	**1,070**	*N/A*	**1,040**	**840**	*N/A*
Other													
Cyanide, Total	mg/kg	150	**2.2**	*N/A*	**4.1**	**1.3**	*N/A*	**4.8**	**8.1**	*N/A*	**0.97 J**	**0.83 J**	*N/A*

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Table 4 - Container Terminal
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	CT-013-SB-1*	CT-013-SB-7*	CT-013-SB-10*	CT-014-SB-1*	CT-014-SB-4*	CT-014-SB-10*	CT-015-SB-1*	CT-015-SB-3*	CT-015-SB-10*	CT-016-SB-1	CT-016-SB-8
			10/12/2023	10/12/2023	10/12/2023	10/13/2023	10/13/2023	10/13/2023	10/16/2023	10/16/2023	10/16/2023	9/29/2023	9/29/2023
Metals													
Aluminum	mg/kg	1,100,000	**18,700**	**16,700**	*N/A*	**8,410**	**10,900**	*N/A*	**11,100**	**11,100**	*N/A*	**9,230**	**7,380**
Antimony	mg/kg	470	*4.15 U*	**0.736 J**	*N/A*	*4.88 U*	*4.59 U*	*N/A*	**41.2**	**4.22 J**	*N/A*	*5.01 U*	*4.32 U*
Arsenic	mg/kg	3	**3.15**	**5.47**	*8.28 U*	*0.976 U*	**5.32**	**1.86**	**19.2**	**12.2**	**5.51**	**3.3**	**4.92**
Barium	mg/kg	220,000	**175**	**197**	*N/A*	**22.3**	**61.8**	*N/A*	**198**	**100**	*N/A*	**49.5**	**119**
Beryllium	mg/kg	2,300	**1.53**	**1.28**	*N/A*	**0.213 J**	**0.909**	*N/A*	**1.2**	**1.08**	*N/A*	**0.444 J**	**0.804**
Cadmium	mg/kg	100	**3.4**	**3.89**	*N/A*	**0.2 J**	*0.918 U*	*N/A*	**0.887 J**	**8.71**	*N/A*	**0.442 J**	**1.01**
Chromium	mg/kg	1,800,000	**575**	**513**	*N/A*	**35.9**	**756**	*N/A*	**370**	**585**	*N/A*	**1,200**	**404**
Chromium VI	mg/kg	6.3	**0.184 J**	**0.301 J**	*N/A*	*0.988 U*	**3.65**	*N/A*	**0.205 J**	**2.3**	*N/A*	**12.6 J-**	**1.02 J-**
Cobalt	mg/kg	350	**1.61 J**	**5.4**	*N/A*	**4.06**	**1.34 J**	*N/A*	**17.4**	**14.3**	*N/A*	**0.238 J**	**4.21**
Copper	mg/kg	47,000	**25.1**	**62.8**	*N/A*	**25.2**	**26.8**	*N/A*	**343**	**326**	*N/A*	**17.6**	**43.4**
Iron	mg/kg	820,000	**121,000**	**99,700**	*N/A*	**10,500**	**148,000**	*N/A*	**109,000**	**161,000**	*N/A*	**159,000**	**79,300**
Lead	mg/kg	800	**23.7**	**111**	*N/A*	**9.62**	**4.2 J**	*N/A*	**2,600**	**523**	*N/A*	**6.13**	**107**
Manganese	mg/kg	26,000	**16,000**	**12,300**	*N/A*	**866**	**20,000**	*N/A*	**15,800**	**14,000**	*N/A*	**21,300**	**15,000**
Mercury	mg/kg	350	**0.061 J**	**0.233**	*N/A*	*0.087 U*	**0.096**	*N/A*	**0.796**	**0.176**	*N/A*	**0.118**	**0.395**
Nickel	mg/kg	22,000	**16.3**	**38.2**	*N/A*	**10.7**	**18.1**	*N/A*	**33.1**	**62.3**	*N/A*	**12.7**	**13.6**
Selenium	mg/kg	5,800	*1.66 U*	*1.64 U*	*N/A*	*1.95 U*	*1.84 U*	*N/A*	**42.2**	**0.306 J**	*N/A*	*2 U*	*1.73 U*
Silver	mg/kg	5,800	**1.33**	**1.6**	*N/A*	*0.488 U*	**1.81**	*N/A*	**1.69**	**1.38**	*N/A*	**2.23**	**1.72**
Thallium	mg/kg	12	*1.66 U*	**0.602 J**	*N/A*	*1.95 U*	*9.18 U*	*N/A*	**0.448 J**	**3.73**	*N/A*	**0.727 J**	**2.43**
Vanadium	mg/kg	5,800	**420**	**534**	*N/A*	**148**	**608**	*N/A*	**286**	**2,230**	*N/A*	**923**	**2,040**
Zinc	mg/kg	350,000	**7,580**	**7,760**	*N/A*	**505**	**44.1**	*N/A*	**406**	**1,100**	*N/A*	**856**	**1,230**
Other													
Cyanide, Total	mg/kg	150	**3.8**	**3.5**	*N/A*	*1.2 U*	**0.49 J**	*N/A*	**5.1**	**1.4**	*N/A*	**0.92 J**	**0.54 J**

Detections in bold
Values in red indicate an exceedance of the Project Action Limit (PAL)
N/A indicates that the parameter was not analyzed for this sample
* Non-validated data
U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
J: The positive result reported for this analyte is a quantitative estimate.
UJ: This analye was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
J+: The positive result reported for this analyte is a quantitative estimate but may be biased high.
J-: The positive result reported for this analyte is a quantitative estimate but may be biased low.
B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.

Table 4 - Container Terminal
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	CT-016-SB-10*	CT-017-SB-1	CT-017-SB-9	CT-017-SB-10	CT-018-SB-1	CT-018-SB-9	CT-018-SB-10*	CT-019-SB-1*	CT-019-SB-8*	CT-019-SB-10*	CT-020-SB-1
			9/29/2023	10/17/2023	10/17/2023	10/17/2023	10/17/2023	10/17/2023	10/17/2023	10/16/2023	10/16/2023	10/16/2023	9/29/2023
Metals													
Aluminum	mg/kg	1,100,000	*N/A*	**9,560**	**8,620**	*N/A*	**6,570**	**6,460**	*N/A*	**24,100**	**10,200**	*N/A*	**6,560**
Antimony	mg/kg	470	*N/A*	*4.63 U*	*2.22 B*	*N/A*	*4.44 U*	**8.45**	*N/A*	*5.01 U*	**1.05 J**	*N/A*	*4.16 U*
Arsenic	mg/kg	3	**6.54**	**4.26 J**	**9.61 J**	**6.65 J**	**9.96 J**	**12.4 J**	**12.1**	**3.97**	**6.81**	**13.4**	**4.43**
Barium	mg/kg	220,000	*N/A*	**47.3**	**173**	*N/A*	**85.1**	**93.4**	*N/A*	**164**	**166**	*N/A*	**83.5**
Beryllium	mg/kg	2,300	*N/A*	**0.348 J**	**0.646**	*N/A*	**0.911**	**0.616**	*N/A*	**3.59**	**0.65**	*N/A*	**0.633**
Cadmium	mg/kg	100	*N/A*	**1**	**1.6**	*N/A*	**0.156 J**	**5.6**	*N/A*	**0.699 J**	**3.12**	*N/A*	**0.399 J**
Chromium	mg/kg	1,800,000	*N/A*	**731 J**	**426 J**	*N/A*	**24.4 J**	**694 J**	*N/A*	**143**	**808**	*N/A*	**406**
Chromium VI	mg/kg	6.3	*N/A*	**0.385 J**	**0.258 J**	*N/A*	**0.303 J**	**8.32 J**	**8.33 J**	**0.293 J**	**1.54**	*N/A*	**0.354 J-**
Cobalt	mg/kg	350	*N/A*	**2.32**	**11.2**	*N/A*	**13**	**11.1**	*N/A*	**2.48**	**4.5**	*N/A*	**4.27**
Copper	mg/kg	47,000	*N/A*	**81.2 J**	**106 J**	*N/A*	**39.3 J**	**120 J**	*N/A*	**22.6**	**64.8**	*N/A*	**39.4**
Iron	mg/kg	820,000	*N/A*	**97,900**	**132,000**	*N/A*	**19,700**	**119,000**	*N/A*	**24,200**	**87,200**	*N/A*	**139,000**
Lead	mg/kg	800	*N/A*	**47.2 J**	**130 J**	*N/A*	**19.1 J**	**298 J**	*N/A*	**64.7**	**744**	*N/A*	**18.5**
Manganese	mg/kg	26,000	*N/A*	**14,000**	**16,600**	*N/A*	**432**	**17,800**	*N/A*	**4,910**	**17,000**	*N/A*	**12,300**
Mercury	mg/kg	350	*N/A*	**0.315**	**0.726**	*N/A*	**0.087**	**0.08**	*N/A*	**0.146**	**0.18**	*N/A*	*0.078 U*
Nickel	mg/kg	22,000	*N/A*	**16.6 J**	**32.5 J**	*N/A*	**19.2 J**	**67.8 J**	*N/A*	**6.27**	**32.9**	*N/A*	**19.1**
Selenium	mg/kg	5,800	*N/A*	*1.85 U*	*1.72 U*	*N/A*	*1.78 U*	*8.35 U*	*N/A*	**0.905 J**	*1.78 U*	*N/A*	*1.66 U*
Silver	mg/kg	5,800	*N/A*	**1.53**	**1.72**	*N/A*	*0.444 U*	**1.73**	*N/A*	**1.04**	**1.67**	*N/A*	**0.901**
Thallium	mg/kg	12	*N/A*	**0.831 J**	**3.23**	*N/A*	**0.566 J**	**6.83**	*N/A*	*2 U*	**6.14**	*N/A*	**0.697 J**
Vanadium	mg/kg	5,800	*N/A*	**512**	**2,430**	*N/A*	**44.1**	**3,890**	*N/A*	**97.7**	**3,380**	*N/A*	**455**
Zinc	mg/kg	350,000	*N/A*	**152 J**	**778 J**	*N/A*	**52.5 J**	**1,210 J**	*N/A*	**207**	**590**	*N/A*	**102**
Other													
Cyanide, Total	mg/kg	150	*N/A*	**3.5**	**3.6**	*N/A*	**0.33 J**	**0.35 J**	*N/A*	**1 J**	**0.46 J**	*N/A*	**0.52 J**

Detections in bold
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B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.

Table 4 - Container Terminal
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	CT-020-SB-9	CT-020-SB-10*	CT-021-SB-1*	CT-021-SB-8*	CT-021-SB-10*	CT-022-SB-1	CT-022-SB-9	CT-022-SB-10*	CT-023-SB-1	CT-023-SB-8	CT-023-SB-10*
			9/29/2023	9/29/2023	10/16/2023	10/16/2023	10/16/2023	9/29/2023	9/29/2023	9/29/2023	10/11/2023	10/11/2023	10/11/2023
Metals													
Aluminum	mg/kg	1,100,000	**7,920**	*N/A*	**17,100**	**7,860**	*N/A*	**4,620**	**5,700**	*N/A*	**5,660**	**7,570**	*N/A*
Antimony	mg/kg	470	*4.44 U*	*N/A*	*4.45 U*	**30.4**	*N/A*	*4.23 U*	*4.16 U*	*N/A*	*4.14 U*	*4.17 U*	*N/A*
Arsenic	mg/kg	3	**10.3**	**5.64**	**5.84**	**5.64**	**2.87**	**2.7**	**3.01**	**5.75**	**3.05**	**2.47**	*N/A*
Barium	mg/kg	220,000	**114**	*N/A*	**93.4**	**172**	*N/A*	**62.4**	**41.3**	*N/A*	**49.2**	**71.9**	*N/A*
Beryllium	mg/kg	2,300	**0.748**	*N/A*	**0.51**	**0.793**	*N/A*	**0.348 J**	**0.438**	*N/A*	**0.683**	**0.787**	*N/A*
Cadmium	mg/kg	100	**0.552 J**	*N/A*	**0.386 J**	**2.06**	*N/A*	**0.39 J**	**0.135 J**	*N/A*	**0.588 J**	**0.336 J**	*N/A*
Chromium	mg/kg	1,800,000	**57.7**	*N/A*	**690**	**1,080**	*N/A*	**1,520**	**1,190**	*N/A*	**1,010**	**877**	*N/A*
Chromium VI	mg/kg	6.3	*0.894 UJ*	*N/A*	*0.914 U*	**16.2 J**	**2.86 J**	**2.25 J-**	**2.61 J-**	*N/A*	**6.38 J-**	**7.62 J-**	**6.44**
Cobalt	mg/kg	350	**17.4**	*N/A*	**4.03**	**5.87**	*N/A*	*1.69 U*	**1.62 J**	*N/A*	**3.77**	**3.07**	*N/A*
Copper	mg/kg	47,000	**66.2**	*N/A*	**29.9**	**71.2**	*N/A*	**14.7**	**10.1**	*N/A*	**31.8 J**	**32.8 J**	*N/A*
Iron	mg/kg	820,000	**92,300**	*N/A*	**109,000**	**135,000**	*N/A*	**142,000**	**167,000**	*N/A*	**154,000**	**122,000**	*N/A*
Lead	mg/kg	800	**95.5**	*N/A*	**27**	**233**	*N/A*	**9.07**	**6.95**	*N/A*	**46.8 J**	**35.6 J**	*N/A*
Manganese	mg/kg	26,000	**2,580**	*N/A*	**20,500**	**28,000**	**46,100**	**26,600**	**35,100**	**23,600**	**21,400**	**18,600**	*N/A*
Mercury	mg/kg	350	**0.069 J**	*N/A*	**0.128**	**0.056 J**	*N/A*	*0.07 U*	*0.073 U*	*N/A*	**0.063 J**	*0.071 U*	*N/A*
Nickel	mg/kg	22,000	**11**	*N/A*	**12.3**	**22.9**	*N/A*	**2.88**	**6.6**	*N/A*	**42.4 J**	**35.2 J**	*N/A*
Selenium	mg/kg	5,800	**1.05 J**	*N/A*	*1.78 U*	*1.66 U*	*N/A*	*1.69 U*	*1.66 U*	*N/A*	*4.14 UJ*	*1.67 UJ*	*N/A*
Silver	mg/kg	5,800	**1.33**	*N/A*	**1.83**	**2.14**	*N/A*	**2.65**	**2.05**	*N/A*	**1.74**	**1.4**	*N/A*
Thallium	mg/kg	12	**0.928 J**	*N/A*	*1.78 U*	**8.13**	*N/A*	**4.19**	**5.74**	*N/A*	*1.66 UJ*	*1.67 UJ*	*N/A*
Vanadium	mg/kg	5,800	**141**	*N/A*	**341**	**4,810**	*N/A*	**2,330**	**3,450**	*N/A*	**1,030**	**1,390**	*N/A*
Zinc	mg/kg	350,000	**835**	*N/A*	**73.2**	**457**	*N/A*	**21.2**	**19.4**	*N/A*	**105**	**136**	*N/A*
Other													
Cyanide, Total	mg/kg	150	**2.6**	*N/A*	**1.5**	**0.6 J**	*N/A*	*1.1 UJ*	*0.99 UJ*	*N/A*	**1.2**	*1.1 U*	*N/A*

Detections in bold
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B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.

Table 4 - Container Terminal
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	CT-024-SB-1* 9/21/2023	CT-024-SB-9* 9/21/2023	CT-024-SB-10* 9/21/2023
Metals					
Aluminum	mg/kg	1,100,000	**6,580**	**7,400**	*N/A*
Antimony	mg/kg	470	*4.52 U*	*4.23 U*	*N/A*
Arsenic	mg/kg	3	**4.72**	**2.82**	*N/A*
Barium	mg/kg	220,000	**70.4**	**73.8**	*N/A*
Beryllium	mg/kg	2,300	**0.507**	**0.654**	*N/A*
Cadmium	mg/kg	100	**0.28 J**	**0.343 J**	*N/A*
Chromium	mg/kg	1,800,000	**819**	**1,500**	*N/A*
Chromium VI	mg/kg	6.3	*0.923 U*	**4.17**	*N/A*
Cobalt	mg/kg	350	**1.26 J**	**0.207 J**	*N/A*
Copper	mg/kg	47,000	**15.3**	**12.2**	*N/A*
Iron	mg/kg	820,000	**108,000**	**166,000**	*N/A*
Lead	mg/kg	800	**51.1**	**4.95**	*N/A*
Manganese	mg/kg	26,000	**18,100**	**34,000**	**7,960**
Mercury	mg/kg	350	*0.072 U*	*0.068 U*	*N/A*
Nickel	mg/kg	22,000	**5.99**	**4.61**	*N/A*
Selenium	mg/kg	5,800	**6.38**	**8.28**	*N/A*
Silver	mg/kg	5,800	**0.77**	**1.04**	*N/A*
Thallium	mg/kg	12	**11.8**	**15.7**	**9.61**
Vanadium	mg/kg	5,800	**496**	**735**	*N/A*
Zinc	mg/kg	350,000	**261**	**18.3**	*N/A*
Other					
Cyanide, Total	mg/kg	150	**0.24 J**	*1 U*	*N/A*

Detections in bold
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J-: The positive result reported for this analyte is a quantitative estimate but may be biased low.
B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.

Table 5 - Container Terminal
Rejected Analytical Results

Sample ID	Parameter	Result (mg/kg)	PAL (mg/kg)	Exceeds PAL?
CT-001-SB-1	2,3,4,6-Tetrachlorophenol	0.21	25,000	no
	2,4,5-Trichlorophenol	0.21	82,000	no
	2,4,6-Trichlorophenol	0.13	210	no
	2,4-Dichlorophenol	0.19	2,500	no
	2,4-Dimethylphenol	0.21	16,000	no
	2,4-Dinitrophenol	1	1,600	no
	2-Chlorophenol	0.21	5,800	no
	2-Methylphenol	0.21	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.3	41,000	no
	Pentachlorophenol	0.17	4	no
	Phenol	0.21	250,000	no
CT-001-SB-3	1,4-Dioxane	0.13	24	no
CT-005-SB-1	2,3,4,6-Tetrachlorophenol	0.58	25,000	no
	2,4,5-Trichlorophenol	0.58	82,000	no
	2,4,6-Trichlorophenol	0.35	210	no
	2,4-Dichlorophenol	0.52	2,500	no
	2,4-Dimethylphenol	0.58	16,000	no
	2,4-Dinitrophenol	2.8	1,600	no
	2-Chlorophenol	0.58	5,800	no
	2-Methylphenol	0.58	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.84	41,000	no
	Pentachlorophenol	0.46	4	no
	Phenol	0.58	250,000	no
CT-005-SB-3	2,3,4,6-Tetrachlorophenol	0.18	25,000	no
	2,4,5-Trichlorophenol	0.18	82,000	no
	2,4,6-Trichlorophenol	0.11	210	no
	2,4-Dichlorophenol	0.16	2,500	no
	2,4-Dimethylphenol	0.18	16,000	no
	2,4-Dinitrophenol	0.87	1,600	no
	2-Chlorophenol	0.18	5,800	no
	2-Methylphenol	0.18	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.26	41,000	no
	Pentachlorophenol	0.14	4	no
	Phenol	0.18	250,000	no

Table 5 - Container Terminal
Rejected Analytical Results

Sample ID	Parameter	Result (mg/kg)	PAL (mg/kg)	Exceeds PAL?
CT-008-SB-3	2,3,4,6-Tetrachlorophenol	0.18	25,000	no
	2,4,5-Trichlorophenol	0.18	82,000	no
	2,4,6-Trichlorophenol	0.11	210	no
	2,4-Dichlorophenol	0.17	2,500	no
	2,4-Dimethylphenol	0.18	16,000	no
	2,4-Dinitrophenol	0.89	1,600	no
	2-Chlorophenol	0.18	5,800	no
	2-Methylphenol	0.18	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.27	41,000	no
	Pentachlorophenol	0.15	4	no
	Phenol	0.18	250,000	no
CT-016-SB-1	2,3,4,6-Tetrachlorophenol	0.21	25,000	no
	2,4,5-Trichlorophenol	0.21	82,000	no
	2,4,6-Trichlorophenol	0.13	210	no
	2,4-Dichlorophenol	0.19	2,500	no
	2,4-Dimethylphenol	0.21	16,000	no
	2,4-Dinitrophenol	1	1,600	no
	2-Chlorophenol	0.21	5,800	no
	2-Methylphenol	0.21	41,000	no
	Pentachlorophenol	0.17	4	no
	Pentachlorophenol	0.034	4	no
	Phenol	0.21	250,000	no
CT-016-SB-8	1,4-Dioxane	0.081	24	no
	2,3,4,6-Tetrachlorophenol	0.18	25,000	no
	2,4,5-Trichlorophenol	0.18	82,000	no
	2,4,6-Trichlorophenol	0.11	210	no
	2,4-Dichlorophenol	0.16	2,500	no
	2,4-Dimethylphenol	0.18	16,000	no
	2,4-Dinitrophenol	0.86	1,600	no
	2-Chlorophenol	0.18	5,800	no
	3&4-Methylphenol(m&p Cresol)	0.26	41,000	no
	Pentachlorophenol	0.14	4	no
	Pentachlorophenol	0.028	4	no
	Phenol	0.18	250,000	no

Table 5 - Container Terminal
Rejected Analytical Results

Sample ID	Parameter	Result (mg/kg)	PAL (mg/kg)	Exceeds PAL?
CT-016-SB-10	1,4-Dioxane	0.059	24	no
CT-017-SB-1	2,3,4,6-Tetrachlorophenol	0.19	25,000	no
	2,4,5-Trichlorophenol	0.19	82,000	no
	2,4,6-Trichlorophenol	0.11	210	no
	2,4-Dichlorophenol	0.17	2,500	no
	2,4-Dimethylphenol	0.19	16,000	no
	2,4-Dinitrophenol	0.92	1,600	no
	2-Chlorophenol	0.19	5,800	no
	2-Methylphenol	0.19	41,000	no
	Pentachlorophenol	0.15	4	no
	Phenol	0.19	250,000	no
CT-017-SB-9	1,4-Dioxane	0.076	24	no
CT-017-SB-10	1,4-Dioxane	0.067	24	no
CT-018-SB-1	2,4-Dinitrophenol	0.88	1,600	no
CT-018-SB-9	1,4-Dioxane	0.06	24	no
	2,3,4,6-Tetrachlorophenol	0.18	25,000	no
	2,4,5-Trichlorophenol	0.18	82,000	no
	2,4,6-Trichlorophenol	0.11	210	no
	2,4-Dichlorophenol	0.16	2,500	no
	2,4-Dimethylphenol	0.18	16,000	no
	2,4-Dinitrophenol	0.87	1,600	no
	2-Chlorophenol	0.18	5,800	no
	2-Methylphenol	0.18	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.26	41,000	no
	Pentachlorophenol	0.14	4	no
	Phenol	0.18	250,000	no
CT-020-SB-1	2,3,4,6-Tetrachlorophenol	0.18	25,000	no
	2,4,5-Trichlorophenol	0.18	82,000	no
	2,4,6-Trichlorophenol	0.11	210	no
	2,4-Dichlorophenol	0.16	2,500	no
	2,4-Dimethylphenol	0.18	16,000	no
	2,4-Dinitrophenol	0.87	1,600	no
	2-Chlorophenol	0.18	5,800	no
	2-Methylphenol	0.18	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.26	41,000	no
	Pentachlorophenol	0.14	4	no
	Phenol	0.18	250,000	no

Table 5 - Container Terminal
Rejected Analytical Results

Sample ID	Parameter	Result (mg/kg)	PAL (mg/kg)	Exceeds PAL?
CT-020-SB-10	1,4-Dioxane	0.086	24	no
CT-022-SB-1	2,3,4,6-Tetrachlorophenol	0.18	25,000	no
	2,4,5-Trichlorophenol	0.18	82,000	no
	2,4,6-Trichlorophenol	0.11	210	no
	2,4-Dichlorophenol	0.16	2,500	no
	2,4-Dimethylphenol	0.18	16,000	no
	2,4-Dinitrophenol	0.87	1,600	no
	2-Chlorophenol	0.18	5,800	no
	2-Methylphenol	0.18	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.26	41,000	no
	Pentachlorophenol	0.14	4	no
	Pentachlorophenol	0.029	4	no
	Phenol	0.18	250,000	no
CT-022-SB-9	2,3,4,6-Tetrachlorophenol	0.17	25,000	no
	2,4,5-Trichlorophenol	0.17	82,000	no
	2,4,6-Trichlorophenol	0.1	210	no
	2,4-Dichlorophenol	0.16	2,500	no
	2,4-Dimethylphenol	0.17	16,000	no
	2,4-Dinitrophenol	0.84	1,600	no
	2-Chlorophenol	0.17	5,800	no
	2-Methylphenol	0.17	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.25	41,000	no
	Pentachlorophenol	0.14	4	no
	Pentachlorophenol	0.028	4	no
	Phenol	0.17	250,000	no
CT-023-SB-1	2,3,4,6-Tetrachlorophenol	0.18	25,000	no
	2,4,5-Trichlorophenol	0.18	82,000	no
	2,4,6-Trichlorophenol	0.11	210	no
	2,4-Dichlorophenol	0.16	2,500	no
	2,4-Dimethylphenol	0.18	16,000	no
	2,4-Dinitrophenol	0.86	1,600	no
	2-Chlorophenol	0.18	5,800	no
	2-Methylphenol	0.18	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.26	41,000	no
	Pentachlorophenol	0.14	4	no
	Phenol	0.18	250,000	no

Table 5 - Container Terminal
Rejected Analytical Results

Sample ID	Parameter	Result (mg/kg)	PAL (mg/kg)	Exceeds PAL?
CT-023-SB-8	2,3,4,6-Tetrachlorophenol	0.18	25,000	no
	2,4,5-Trichlorophenol	0.18	82,000	no
	2,4,6-Trichlorophenol	0.11	210	no
	2,4-Dichlorophenol	0.16	2,500	no
	2,4-Dimethylphenol	0.18	16,000	no
	2,4-Dinitrophenol	0.86	1,600	no
	2-Chlorophenol	0.18	5,800	no
	2-Methylphenol	0.18	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.26	41,000	no
	Pentachlorophenol	0.14	4	no
	Phenol	0.18	250,000	no

APPENDIX A

Container Terminal Sampling Plan Summary
Former Sparrows Point Steel Mill
Sparrows Point, Maryland

Soil Sampling Summary

Source Area/ Description	REC & Finding/ SWMU/ AOC	Figure or Drawing of Reference	Rationale	Number of Locations	Sample Locations	Boring Depth	Sample Depth	Analytical Parameters: Soil Samples
Battery #3 and B18 Phase II Data Gap	Finding 71 SWMU 106	Drawing 5514	Investigate potential impacts in the vicinity of Battery #3 and fill data gap from Parcel B18 Phase II	1	CT-001-SB	Total depth of 20-feet or 5-feet below observed groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC^, SVOC, Metals, DRO/GRO, O&G, Cyanide, PCBs (0-1')
Former Tank Area	N/A	Drawing 5514	Investigate potential impacts in the vicinity of Former Tank Area (potential leaks or releases)	1	CT-002-SB	Total depth of 20-feet or 5-feet below observed groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC^, SVOC, Metals, DRO/GRO, O&G, Cyanide, PCBs (0-1')
Site-Wide Coverage	N/A	Drawing 5508	Provide Site-Wide Coverage of the COA	1	CT-003-SB	Total depth of 20-feet or 5-feet below observed groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC^, SVOC, Metals, DRO/GRO, O&G, Cyanide, PCBs (0-1')
Exhauster Builing Lines and Pump House	N/A	Drawing 5514	Investigate potential impacts in the vicinity of Exhauster Building Lines and the Pump House (potential leaks or releases)	1	CT-004-SB	Total depth of 20-feet or 5-feet below observed groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC^, SVOC, Metals, DRO/GRO, O&G, Cyanide, PCBs (0-1')
Site-Wide Coverage	N/A	Drawing 5508	Provide Site-Wide Coverage of the COA	1	CT-005-SB	Total depth of 20-feet or 5-feet below observed groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC^, SVOC, Metals, DRO/GRO, O&G, Cyanide, PCBs (0-1')
Benzol Washers	N/A	Drawing 5514	Investigate potential impacts in the vicinity of Benzol Washers (potential leaks or releases)	1	CT-006-SB	Total depth of 20-feet or 5-feet below observed groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC^, SVOC, Metals, DRO/GRO, O&G, Cyanide, PCBs (0-1')
Tar Tanks	N/A	Drawing 5514	Investigate potential impacts in the vicinity of Tar Tanks (potential leaks or releases)	1	CT-007-SB	Total depth of 20-feet or 5-feet below observed groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC^, SVOC, Metals, DRO/GRO, O&G, Cyanide, PCBs (0-1')
Acid Cooler/Acid Tanks	N/A	Drawing 5507	Investigate potential impacts in the vicinity of Acid Cooler and Acid Tanks (potential leaks or releases)	1	CT-008-SB	Total depth of 20-feet or 5-feet below observed groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC^, SVOC, Metals, DRO/GRO, O&G, Cyanide, PCBs (0-1')

Container Terminal Sampling Plan Summary
Former Sparrows Point Steel Mill
Sparrows Point, Maryland

Soil Sampling Summary

Source Area/ Description	REC & Finding/ SWMU/ AOC	Figure or Drawing of Reference	Rationale	Number of Locations	Sample Locations	Boring Depth	Sample Depth	Analytical Parameters: Soil Samples
Waste Steam Storage Tank and Coke Oven Storage Building	N/A	Drawing 5507	Investigate potential impacts in the vicinity of Waste Steam Storage Tank and Coke Oven Storage Building	1	CT-009-SB	Total depth of 20-feet or 5-feet below observed groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC^, SVOC, Metals, DRO/GRO, O&G, Cyanide, PCBs (0-1')
Light Oil Storage	N/A	Drawing 5508	Investigate potential impacts in the vicinity of Light Oil Storage (potential leaks or releases)	1	CT-010-SB	Total depth of 20-feet or 5-feet below observed groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC^, SVOC, Metals, DRO/GRO, O&G, Cyanide, PCBs (0-1')
Mixing Bins	N/A	Drawing 5508	Investigate potential impacts in the vicinity of the Mixing Bins	1	CT-011-SB	Total depth of 20-feet or 5-feet below observed groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC^, SVOC, Metals, DRO/GRO, O&G, Cyanide, PCBs (0-1')
Mechanical Shop Waste Oil Accumulation Area	REC Finding 73 SWMU 108	Drawing 5508	Investigate potential impacts in the vicinity of Mechanical Shop Waste Oil Accumulation Area (potential leaks or releases)	1	CT-012-SB	Total depth of 20-feet or 5-feet below observed groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC^, SVOC, Metals, DRO/GRO, O&G, Cyanide, PCBs (0-1')
Site-Wide Coverage	N/A	Drawing 5508	Provide Site-Wide Coverage of the COA	1	CT-013-SB	Total depth of 20-feet or 5-feet below observed groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC^, SVOC, Metals, DRO/GRO, O&G, Cyanide, PCBs (0-1')
Tar Storage Tanks	Possible REC	Drawing 5508	Investigate potential impacts in the vicinity of Tar Storage Tanks (potential leaks or releases)	1	CT-014-SB	Total depth of 20-feet or 5-feet below observed groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC^, SVOC, Metals, DRO/GRO, O&G, Cyanide, PCBs (0-1')
Sulfate Storage Tanks	N/A	Drawing 5508	Investigate potential impacts in the vicinity of Sulfate Storage Tanks (potential leaks or releases)	1	CT-015-SB	Total depth of 20-feet or 5-feet below observed groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC^, SVOC, Metals, DRO/GRO, O&G, Cyanide, PCBs (0-1')
Oil Storage Tanks	Possible REC	Drawing 5508	Investigate potential impacts in the vicinity of Oil Storage Tanks (potential leaks or releases)	1	CT-016-SB	Total depth of 20-feet or 5-feet below observed groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC^, SVOC, Metals, DRO/GRO, O&G, Cyanide, PCBs (0-1')

Container Terminal Sampling Plan Summary
Former Sparrows Point Steel Mill
Sparrows Point, Maryland

Soil Sampling Summary

Source Area/ Description	REC & Finding/ SWMU/ AOC	Figure or Drawing of Reference	Rationale	Number of Locations	Sample Locations	Boring Depth	Sample Depth	Analytical Parameters: Soil Samples
"B" Coal Chemical Plant Tanks	N/A	Drawing 5508	Investigate potential impacts in the vicinity of "B" Coal Chemical Plant Tanks (potential leaks or releases)	1	CT-017-SB	Total depth of 20-feet or 5-feet below observed groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC^, SVOC, Metals, DRO/GRO, O&G, Cyanide, PCBs (0-1')
Tar Storage Tanks	Possible REC	Drawing 5508	Investigate potential impacts in the vicinity of Tar Storage Tanks (potential leaks or releases)	1	CT-018-SB	Total depth of 20-feet or 5-feet below observed groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC^, SVOC, Metals, DRO/GRO, O&G, Cyanide, PCBs (0-1')
Coke Oven Office	N/A	Drawing 5508	Investigate potential impacts in the vicinity of the Coke Oven Office	1	CT-019-SB	Total depth of 20-feet or 5-feet below observed groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC^, SVOC, Metals, DRO/GRO, O&G, Cyanide, PCBs (0-1')
Coke Oven Primary Substation and East of Cell 5	N/A	Drawing 5508	Investigate potential impacts in the vicinity of the Coke Oven Primary Substation and the eastern portion of Cell 5	1	CT-020-SB	Total depth of 20-feet or 5-feet below observed groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC^, SVOC, Metals, DRO/GRO, O&G, Cyanide, PCBs (0-1')
Rotary Drums	N/A	Drawing 5508	Investigate potential impacts in the vicinity of the Rotary Drums	1	CT-021-SB	Total depth of 20-feet or 5-feet below observed groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC^, SVOC, Metals, DRO/GRO, O&G, Cyanide, PCBs (0-1')
Coke Point Landfill	REC 4A Finding 65 SWMU 191	Drawing 5501, Drawing 5502	Investigate potential impacts in the vicinity of the Coke Point Landfill	3	CT-022-SB through CT-024-SB	Total depth of 20-feet or 5-feet below observed groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC^, SVOC, Metals, DRO/GRO, O&G, Cyanide, PCBs (0-1')
			Total:	24				

VOCs - Volatile Organic Compounds (Target Compound List)
^VOCs are only collected if the PID reading exceeds 10 ppm
SVOCs - Semivolatile Organic Compounds (Target Compound List)
Metals - (Target Analyte List plus Hexavalent Chromium and Cyanide)
O&G - Oil and Grease
DRO/GRO - Diesel Range Organics/Gasoline Range Organics
PCBs - Polychlorinated Biphenyls
bgs - Below Ground Surface

APPENDIX B

ARM Group LLC
Engineers and Scientists

Boring ID: CT-001-SB

(page 1 of 1)

Client	: Tradepoint Atlantic
ARM Project No.	: 21010210
Project Description	: Container Terminal
Site Location	: Sparrows Point, MD
ARM Representative	: J. Barna & S. Lowe
Checked by	:
Drilling Company	: Connelly & Associates
Driller	: Jared
Drilling Equipment	: Sonic Rig

Date	: 9/11/23
Total depth (ft)	: 10' bgs
Depth to water (0hr.)	: 5' bgs

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	REMARKS
0					
	100	0.8	CT-001-SB-1	(0-3') FILL Slag GRAVEL with some SANDY SILT, black, loose (DRY)	
1		2.3			
2		16.5	CT-001-SB-3		
3		4.9		(3-3.5') FILL Concrete (DRY)	
4		2.7		(3.5-4') FILL Slag GRAVEL with some SANDY SILT, red, loose (DRY)	
5		126.8		(4-4.5') FILL Slag GRAVEL with some SANDY SILT, dark grey, loose (DRY)	Wet at 5' bgs
6		-		(4.5-5') FILL Slag GRAVEL with some SANDY SILT, dark grey, loose (MOIST)	
7	70	90.7		(5-6') FILL Slag COBBLES and GRAVEL, dark grey, iridescent but no sheen (WET) (6-7.5') No recovery.	Strong creosote odor 5-10' bgs
8		75.0		(7.5-10') FILL Wood (rail ties) (WET)	
9		4.2			
10				End of boring	
11					

Total Borehole Depth: 10' bgs
(Termination at 5' below groundwater per Work Plan).
bgs: Below ground surface

ARM Group LLC
Engineers and Scientists

Boring ID: CT-002-SB

(page 1 of 1)

Client	: Tradepoint Atlantic
ARM Project No.	: 21010210
Project Description	: Container Terminal
Site Location	: Sparrows Point, MD
ARM Representative	: J. Barna & S. Lowe
Checked by	:
Drilling Company	: Connelly & Associates
Driller	: Jared
Drilling Equipment	: Sonic Rig

Date	: 10/16/23
Total depth (ft)	: 20' bgs
Depth to water (0hr.)	: 13' bgs

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	REMARKS
0					
1	100	147.4	CT-002-SB-1	(0-2') FILL Slag GRAVEL with SAND and SILT, dark brown, loose (DRY)	
2		118.4			
3		345.6		(2-5') FILL Concrete, light green (DRY)	High PID readings but no odor or observed impacts.
4		8158	CT-002-SB-4		
5		2512			
6	80	-		(5-6') No recovery.	
7		1188		(6-10') FILL GRAVEL and SILTY CLAY, dark brown to light green, non-plastic, non-cohesive (DRY)	
8		1545			
9		438.1			
10		1062	CT-002-SB-10		
11	80	-		(10-11') No recovery.	
12		42.9		(11-12') FILL Concrete (DRY)	
13		5.6		(12-14') FILL GRAVEL slag with some SILTY SAND, light green, loose (WET)	Wet at 13' bgs
14		2.5			
15		27.1		(14-15') FILL GRAVEL and SILTY CLAY, dark brown to light green, non-plastic, non-cohesive (WET)	
16	100	3.4		(15-20') FILL GRAVEL slag with some SILTY SAND, blue-green, loose (WET)	
17		2.7			
18		2.5			
19		12.1			
20		-			
21				End of boring	

Total Borehole Depth: 20' bgs (per Work Plan).
bgs: Below ground surface

ARM Group LLC
Engineers and Scientists

Boring ID: CT-003-SB

(page 1 of 1)

Client	: Tradepoint Atlantic
ARM Project No.	: 21010210
Project Description	: Container Terminal
Site Location	: Sparrows Point, MD
ARM Representative	: J. Barna & S. Lowe
Checked by	:
Drilling Company	: Connelly & Associates
Driller	: Jared
Drilling Equipment	: Sonic Rig

Date	: 10/16/23
Total depth (ft)	: 20' bgs
Depth to water (0hr.)	: 10' bgs

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	REMARKS
0					
1	60	2.4	CT-003-SB-1	(0-3') FILL Slag GRAVEL with SAND and SILT, 3-inch intervals of brown, grey, light brown, blue-grey, and black, loose (DRY)	
2		14.9			
3		33.8	CT-003-SB-3		
4		-		(3-5) No Recovery.	
5		-			
6	100	9.8		(5-10') FILL Slag GRAVEL with SAND and SILT, black with thin interbedded units of red-brown throughout, loose (DRY)	
7		17.4			
8		20.2			
9		14.9			
10		15.6	CT-003-SB-10		Wet at 10' bgs
11	60	6.9		(10-12') FILL Slag GRAVEL with SAND and SILT, dark grey, loose (WET)	
12		42.3			
13		44.4		(12-13') FILL Slag GRAVEL with SAND and SILT, blue-grey, loose (WET)	
14		-		(13-16') No Recovery.	
15		-			
16	80	-		(16-20') FILL Slag GRAVEL with SILTY SAND, blue-grey, loose (WET)	
17		8.2			
18		36.8			
19		23.4			
20		42.4			

Total Borehole Depth: 20' bgs (per Work Plan).
bgs: Below ground surface

ARM Group LLC
Engineers and Scientists

Boring ID: CT-004-SB

(page 1 of 1)

Client	: Tradepoint Atlantic
ARM Project No.	: 21010210
Project Description	: Container Terminal
Site Location	: Sparrows Point, MD
ARM Representative	: J. Barna & S. Lowe
Checked by	:
Drilling Company	: Connelly & Associates
Driller	: Jared
Drilling Equipment	: Sonic Rig

Date	: 10/16/23
Total depth (ft)	: 20' bgs
Depth to water (0hr.)	: 10' bgs

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	REMARKS
0					
1	100	4.0	CT-004-SB-1	(0-4') FILL Slag GRAVEL with SAND and SILT, light brown to brown, loose (DRY)	
2		20.1			
3		37.9			
4		54.7			
5		54.4		(4-5') FILL Slag GRAVEL, loose, perched zone of moisture with globules of NAPL (WET)	
6	80	-		(5-6') No Recovery.	Strong Odor (6-9') bgs
7		75.4		(6-9') FILL Slag GRAVEL with SAND and SILT, loose, perched zone of moisture (WET)	
8		62.4			
9		160.2	CT-004-SB-9		
10		230.1	CT-004-SB-10	(9-10') FILL Concrete (DRY)	Wet at 10' bgs
11	100	-		(10-19') FILL Slag saturated with NAPL, loose, black, blue, green (WET)	Heavy NAPL Impact (10-19') bgs
12		-			
13		-			
14		-			
15		-			
16	100	-			
17		-			
18		-			
19		-		(19-20') CLAY Grey, hard, low plasticity, low cohesion (WET)	
20					

Total Borehole Depth: 20' bgs (per Work Plan).
bgs: Below ground surface

ARM Group LLC
Engineers and Scientists

Boring ID: CT-005-SB

(page 1 of 1)

Client	: Tradepoint Atlantic
ARM Project No.	: 21010210
Project Description	: Container Terminal
Site Location	: Sparrows Point, MD
ARM Representative	: J. Barna & S. Lowe
Checked by	:
Drilling Company	: Connelly & Associates
Driller	: Jared
Drilling Equipment	: Sonic Rig

Date	: 9/11/2023
Total depth (ft)	: 15' bgs
Depth to water (0hr.)	: 9' bgs

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	REMARKS
0					
1	100	2.3	CT-005-SB-1	(0-2') FILL Slag GRAVEL with SILTY sand, dark brown, loose (MOIST)	
2		4.3			
3		8.4		(2-9') FILL Slag GRAVEL with SAND and SILT, loose, grey (MOIST)	
4		1.7	CT-005-SB-3		
5		2.5			
6	100	3.9			
7		2.5			
8		2.7			
9		0.5			Wet at 9' bgs
10	60	3.5	CT-005-SB-10	(9-15') FILL Slag GRAVEL with SAND and SILT, grey, loose (WET)	
11		-			
12		-			
13		5.6			
14		2.2			
15		4.3			

Total Borehole Depth: 15' bgs
(Terminated 5' below GW per Work Plan).
bgs: Below ground surface

ARM Group LLC
Engineers and Scientists

Boring ID: CT-006-SB

(page 1 of 1)

Client	: Tradepoint Atlantic
ARM Project No.	: 21010210
Project Description	: Container Terminal
Site Location	: Sparrows Point, MD
ARM Representative	: J. Barna & S. Lowe
Checked by	:
Drilling Company	: Connelly & Associates
Driller	: Jared
Drilling Equipment	: Sonic Rig

Date	: 10/13/2023
Total depth (ft)	: 20' bgs
Depth to water (0hr.)	: 10' bgs

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	REMARKS
0					
1	100	16.5	CT-006-SB-1	(0-2') FILL Slag GRAVEL with SILTY sand, red brown, loose (DRY)	
2		23.0			Strong Creosote Odor Throughout.
3		41.7		(2-2.5') FILL Concrete	
4		200.9		(2.5-3') FILL Slag GRAVEL with SILTY SAND, loose, black (DRY)	
5		295.9		(3-5') FILL Rail ties saturated with NAPL	NAPL (5-9.5') bgs
6	100	427.2	CT-006-SB-6	(5-9.5') FILL Slag infused with NAPL with intermittent layers of silt (MOIST)	
7		65.9			
8		284.7			
9		124.2			
10		237.2	CT-006-SB-10	(9.5-10') FILL Rail Ties	Wet at 10' bgs
11	40	-		(10-13') No Recovery.	
12		-			
13		-		(13-14') FILL Concrete	
14		-		(14-15') FILL Slag GRAVEL with SANDY SILT, trace NAPL (WET)	
15		-		(15-18') No Recovery.	
16	40	-			
17		-			
18		-		(18-20') FILL NAPL infused rail tie	NAPL (18-20') bgs
19		-			
20		-			

Total Borehole Depth: 20' bgs
(per Work Plan).
bgs: Below ground surface

ARM Group LLC
Engineers and Scientists

Boring ID: CT-007-SB

(page 1 of 2)

Client	: Tradepoint Atlantic
ARM Project No.	: 21010210
Project Description	: Container Terminal
Site Location	: Sparrows Point, MD
ARM Representative	: J. Barna & S. Lowe
Checked by	:
Drilling Company	: Connelly & Associates
Driller	: Jared
Drilling Equipment	: Sonic Rig

Date	: 10/13/2023
Total depth (ft)	: 20' bgs
Depth to water (0hr.)	: 15' bgs

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	REMARKS
0					
		12.1	CT-007-SB-1	(0-1') FILL Slag GRAVEL with SILTY SAND, brown, loose (DRY)	
1		23.1		(1-1.5') FILL Slag GRAVEL with SILTY SAND, loose, red brown (DRY)	Strong Creosote Odor (1.5-3') bgs
2	100	94.3	CT-007-SB-3	(1.5-3') FILL Slag GRAVEL with SILT and some SAND, black, loose (DRY)	
3		12.7		(3-10') FILL Slag GRAVEL with SILTY SAND, dark gray and tan, loose (DRY)	
4		14.5			
5		3.4			
6		12.7			
7	100	53.1			Strong Creosote Odor (7-10') bgs
8		71.5			
9		89.8	CT-007-SB-10		
10					

Total Borehole Depth: 20' bgs
(per Work Plan).
bgs: Below ground surface

ARM Group LLC
Engineers and Scientists

Boring ID: CT-007-SB

(page 2 of 2)

Client	: Tradepoint Atlantic
ARM Project No.	: 21010210
Project Description	: Container Terminal
Site Location	: Sparrows Point, MD
ARM Representative	: J. Barna & S. Lowe
Checked by	:
Drilling Company	: Connelly & Associates
Driller	: Jared
Drilling Equipment	: Sonic Rig

Date	: 10/13/2023
Total depth (ft)	: 20' bgs
Depth to water (0hr.)	: 15' bgs

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	REMARKS
10		-		(10-11') No Recovery	
11		5.8		(11-14') FILL Concrete	
12	40	5.3			
13		-			
14		-		(14-14.5') FILL Slag GRAVEL with SILT, black, no plasticity, no cohesion, loose (MOIST)	Strong Creosote Odor (14-20') bgs
15		-		(14.5-15') FILL Rail Tie	Wet at 15' bgs
16		-		(15-19.5') No Recovery.	
17		-			
18	10	-			
19		-			NAPL (19.5-20') bgs Sheen observed on water.
20		-		(19.5-20') FILL Slag with GRAVEL and SILTY SAND, loose, black, NAPL infused (WET)	

Total Borehole Depth: 20' bgs
(per Work Plan).
bgs: Below ground surface

ARM Group LLC
Engineers and Scientists

Boring ID: CT-008-SB

(page 1 of 1)

Client	: Tradepoint Atlantic
ARM Project No.	: 21010210
Project Description	: Container Terminal
Site Location	: Sparrows Point, MD
ARM Representative	: J. Barna & S. Lowe
Checked by	:
Drilling Company	: Connelly & Associates
Driller	: Jared
Drilling Equipment	: Sonic Rig

Date	: 10/11/2023
Total depth (ft)	: 20' bgs
Depth to water (0hr.)	: 10' bgs

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	REMARKS
0					
1	100	7.1	CT-008-SB-1	(0-4') FILL Slag GRAVEL with SILT, black, loose (DRY)	
2		2.8			
3		4.4	CT-008-SB-3		
4		2.2			
5		0.5		(4-5') FILL Slag GRAVEL with SILTY SAND, loose, red brown (DRY)	
6	90	0.5		(5-5.5') No Recovery.	
7		2.1		(5.5-10') FILL Slag GRAVEL with SAND, black, loose (DRY)	
8		3.6			
9		1.8			
10		1.8	CT-008-SB-10		Wet at 10' bgs
11	100	-		(10-10.5') FILL Slag GRAVEL with SAND, red- red brown, loose (WET)	
12		-		(10.5-14') FILL Slag GRAVEL with SAND, black, loose (WET)	
13		-			
14		-			Minor Petroleum Odor (14-16') bgs
15	100	-		(14-15') FILL Slag GRAVEL with CLAY and SILT, low plasticity, low cohesion, hard (WET)	
16		-		(15-20') FILL Slag GRAVEL with SAND, black, loose (WET)	
17		-			
18		-			
19		-			
20		-			

Total Borehole Depth: 20' bgs
(per Work Plan).
bgs: Below ground surface

ARM Group LLC
Engineers and Scientists

Boring ID: CT-009-SB

(page 1 of 1)

Client	: Tradepoint Atlantic
ARM Project No.	: 21010210
Project Description	: Container Terminal
Site Location	: Sparrows Point, MD
ARM Representative	: J. Barna & S. Lowe
Checked by	:
Drilling Company	: Connelly & Associates
Driller	: Jared
Drilling Equipment	: Sonic Rig

Date	: 10/12/2023
Total depth (ft)	: 20' bgs
Depth to water (0hr.)	: 10' bgs

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	REMARKS
0					
1	100	2.6	CT-009-SB-1	(0-5') FILL Slag GRAVEL with SILTY SAND, dark brown, loose (DRY)	
2		9.2			
3		25.3	CT-009-SB-3		
4		17.7			
5		11.0			
6	90	2.1		(5-5.5') No Recovery.	
7		4.1		(5.5-10') FILL Slag GRAVEL with SILTY SAND, dark brown, loose (DRY)	
8		4.8			
9		3.7			
10		8.4	CT-009-SB-10		
11	40	-		(10-10.5') FILL Slag GRAVEL with SILTY SAND, dark brown, loose (MOIST)	Wet at 10.5' bgs
12		-		(10.5-13') FILL Slag GRAVEL with SAND, black, loose (WET)	
13		-		(13-18') No Recovery	Strong Petroleum Odor (13-20') bgs
14		-			
15		-			
16	40	-			
17		-			
18		-		(18-20) FILL Slag GRAVEL with SILTY SAND, black, loose (WET)	
19		-			
20					

Total Borehole Depth: 20' bgs
(per Work Plan).
bgs: Below ground surface

ARM Group LLC
Engineers and Scientists

Boring ID: CT-010-SB

(page 1 of 1)

Client	: Tradepoint Atlantic
ARM Project No.	: 21010210
Project Description	: Container Terminal
Site Location	: Sparrows Point, MD
ARM Representative	: J. Barna & S. Lowe
Checked by	:
Drilling Company	: Connelly & Associates
Driller	: Jared
Drilling Equipment	: Sonic Rig

Date	: 10/12/2023
Total depth (ft)	: 20' bgs
Depth to water (0hr.)	: 13' bgs

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	REMARKS
0					
1	100	6.0	CT-010-SB-1	(0-2') FILL Slag GRAVEL with SAND, brown, loose (DRY)	
2		6.4			
3		6.0		(2-2.5') FILL Slag SAND, loose, gray (DRY)	
4		6.7		(2.5-3') FILL Slag GRAVEL with SAND, loose, gray (DRY)	
5		4.2		(3-5') FILL Concrete	
6	90	12.7		(5-5.5') No Recovery.	
7		55.5	CT-010-SB-7	(5.5-10') FILL Slag GRAVEL with SILTY SAND, brown, loose (DRY)	
8		30.8			
9		39.2			
10		14.5	CT-010-SB-10		
11	40	-		(10-13') No Recovery.	
12		-			
13		-		(13-14) FILL Slag GRAVEL, black, loose, NAPL observed (WET)	Wet at 13' bgs
14		-		(14-19') FILL Slag GRAVEL with SILTY SAND, loose, black (WET)	Strong Petroleum Odor NAPL Observed (Similar to Cell 4) (13-14') bgs
15		-			
16	100	-			
17		-			
18		-			
19		-			
20		-		(19-20') FILL Organic - rich silt, low plasticity, low cohesion, firm, black (WET)	

Total Borehole Depth: 20' bgs
(per Work Plan).
bgs: Below ground surface

ARM Group LLC
Engineers and Scientists

Boring ID: CT-011-SB

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Client	: Tradepoint Atlantic
ARM Project No.	: 21010210
Project Description	: Container Terminal
Site Location	: Sparrows Point, MD
ARM Representative	: J. Barna & S. Lowe
Checked by	:
Drilling Company	: Connelly & Associates
Driller	: Jared
Drilling Equipment	: Sonic Rig

Date	: 10/12/2023
Total depth (ft)	: 20' bgs
Depth to water (0hr.)	: 12' bgs

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	REMARKS
0					
1	100	4.8	CT-011-SB-1	(0-2') FILL Concrete	
2		7.1			
3		10.6		(2-5') FILL Slag GRAVEL with SILTY SAND, gray, loose (MOIST)	Faint Odor Petroleum (2-5') bgs
4		278.0	CT-011-SB-4		
5		222.0			
6	100	1.5		(5-6') FILL Slag GRAVEL with SILT, loose, brown (DRY)	
7		1.5		(6-9') FILL Slag GRAVEL with SAND, black, loose (DRY)	
8		1.4			
9		1.7			
10	60	5.9	CT-011-SB-10	(9-10') FILL Slag GRAVEL with SILT, blue-gray, loose (DRY)	
11		-		(10-12') No Recovery.	
12		-		(12-19') FILL Slag GRAVEL with SAND, loose, blue-gray (WET)	Wet at 12' bgs Strong Petroleum Odor (13-15') bgs
13		-			
14		-			
15		-			
16	100	-			
17		-			
18		-			
19		-		(19-20') CLAY Firm, gray, no cohesion, no plasticity (WET)	
20					

Total Borehole Depth: 20' bgs
(per Work Plan).
bgs: Below ground surface

ARM Group LLC
Engineers and Scientists

Boring ID: CT-012-SB

(page 1 of 1)

Client	: Tradepoint Atlantic
ARM Project No.	: 21010210
Project Description	: Container Terminal
Site Location	: Sparrows Point, MD
ARM Representative	: J. Barna & S. Lowe
Checked by	:
Drilling Company	: Connelly & Associates
Driller	: Jared
Drilling Equipment	: Sonic Rig

Date	: 10/12/2023
Total depth (ft)	: 20' bgs
Depth to water (0hr.)	: 16' bgs

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	REMARKS
0					
1	100	2.0	CT-012-SB-1	(0-1') FILL Concrete	
2		0.2		(1-10') FILL Slag GRAVEL with SILTY SAND, brown-gray, loose (DRY)	
3		0.5			
4		0.2			
5		0.3			
6	100	1.7			
7		0.2			
8		0.4			
9		2.7	CT-012-SB-9		
10		0.4	CT-012-SB-10		
11	10	-		(10-14.5') No Recovery.	
12		-			
13		-			
14		-			
15		0.8		(14.5-16') FILL Slag GRAVEL with SILT, dark brown, loose (DRY)	
16	100	0.6		(16-20') FILL Slag GRAVEL with SILTY SAND, bdark gray, loose (WET)	Wet at 16' bgs
17		-			
18		-			
19		-			
20		-			

Total Borehole Depth: 20' bgs
(per Work Plan).
bgs: Below ground surface

ARM Group LLC
Engineers and Scientists

Boring ID: CT-013-SB

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Client	: Tradepoint Atlantic
ARM Project No.	: 21010210
Project Description	: Container Terminal
Site Location	: Sparrows Point, MD
ARM Representative	: J. Barna & S. Lowe
Checked by	:
Drilling Company	: Connelly & Associates
Driller	: Jared
Drilling Equipment	: Sonic Rig

Date	: 10/12/2023
Total depth (ft)	: 20' bgs
Depth to water (0hr.)	: 12.5' bgs

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	REMARKS
0					
1	100	19.1	CT-013-SB-1	(0-2') FILL Slag GRAVEL with SILT and some SAND, loose, light brown (DRY)	
2		4.9			
3		5.8		(2-5') FILL Slag SILTY SAND with GRAVEL, dark gray- black, loose (DRY)	
4		5.3			
5		20.3		(5-6') No Recovery.	
6	90	-			
7		21.4	CT-013-SB-7	(6-10') FILL Slag SILTY SAND with GRAVEL, dark brown, loose (DRY)	
8		19.7			
9		19.6			
10		20.7	CT-013-SB-10		
11	100	-		(10-12.5') FILL Slag SILTY SAND with GRAVEL, dark brown, loose (DRY)	
12		-			
13		-		(12.5-18') FILL Slag GRAVEL with SAND and some SILT, brown, loose (WET)	Wet at 12.5' bgs
14		-			
15		-			
16	100	-			
17		-			
18		-		(18-20') SILTY CLAY Dark grey, low plasticity, low cohesion, firm (WET)	
19		-			
20					

Total Borehole Depth: 20' bgs
(per Work Plan).
bgs: Below ground surface

ARM Group LLC
Engineers and Scientists

Boring ID: CT-014-SB

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Client	: Tradepoint Atlantic
ARM Project No.	: 21010210
Project Description	: Container Terminal
Site Location	: Sparrows Point, MD
ARM Representative	: J. Barna & S. Lowe
Checked by	:
Drilling Company	: Connelly & Associates
Driller	: Jared
Drilling Equipment	: Sonic Rig

Date	: 10/13/2023
Total depth (ft)	: 20' bgs
Depth to water (0hr.)	: 10' bgs

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	REMARKS
0					
1	100	0.4	CT-014-SB-1	(0-1') FILL Asphalt	
2		6.0		(1-6.5') FILL Slag GRAVEL with SILT and SAND, dark gray, loose (DRY)	
3		23.1			
4		51.2	CT-014-SB-4		
5		11.6			
6	100	11.7			
7		31.7		(6.5-7') FILL Slag GRAVEL with SILT and SAND, light gray, loose (DRY)	
8		8.9		(7-10') FILL Slag GRAVEL with SILT and SAND, black, loose (MOIST)	
9		27.2			
10		10.6	CT-014-SB-10	(10-14.5') FILL Slag GRAVEL with SILTY SAND, dark gray, loose (WET)	Wet at 10' bgs Faint Petroleum Odor (10-15')
11	100	-			
12		-			
13		-			
14		-			
15		-		(14.5-17') FILL Slag GRAVEL with SAND and SILT, dark gray, loose (WET)	
16		-			
17	100	-		(17-18') FILL Concrete	
18		-		(18-20') FILL Slag GRAVEL with SAND and SILT, some wood fragments, loose (WET)	
19		-			
20					

Total Borehole Depth: 20' bgs
(per Work Plan).
bgs: Below ground surface

ARM Group LLC
Engineers and Scientists

Boring ID: CT-015-SB

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Client	: Tradepoint Atlantic
ARM Project No.	: 21010210
Project Description	: Container Terminal
Site Location	: Sparrows Point, MD
ARM Representative	: J. Barna & S. Lowe
Checked by	:
Drilling Company	: Connelly & Associates
Driller	: Jared
Drilling Equipment	: Sonic Rig

Date	: 10/16/2023
Total depth (ft)	: 20' bgs
Depth to water (0hr.)	: 15' bgs

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	REMARKS
0		11.5	CT-015-SB-1	(0-1') FILL Slag GRAVEL with SAND and SILT, red-brown, loose (DRY)	
1		16.3		(1-1.5') FILL Concrete (DRY)	
2	100	30.4	CT-015-SB-3	(1.5-2') FILL SANDY SILT, brown, no plasticity, no cohesion, soft (MOIST)	
3		28.1		(2-10') FILL Slag GRAVEL with SAND and SILT, light-dark brown, to grey to light grey, red at 10' bgs, loose (DRY)	
4		26.9			
5		25.9			
6		4.2			
7	100	11.7			
8		11.9			
9		30.4	CT-015-SB-10		
10		50.4		(10-15') FILL Slag GRAVEL with SAND and SILT, black, loose (MOIST)	
11		82.1			
12	100	301.7			
13		266.9			
14		328.4			
15		18.8		(15-15.5') FILL Slag GRAVEL with SAND and SILT, black, loose (WET)	Wet at 15' bgs
16		8.7		(15.5-16') FILL Slag GRAVEL with SILT and some CLAY, black, loose,no plasticity, no cohesion (WET)	
17	100	25.6		(16-20') FILL Slag GRAVEL with SAND and SILT, black, loose (WET)	
18		60.0			
19		65.9			
20					

Total Borehole Depth: 20' bgs
(per Work Plan).
bgs: Below ground surface

ARM Group LLC
Engineers and Scientists

Boring ID: CT-016-SB

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Client	: Tradepoint Atlantic
ARM Project No.	: 21010210
Project Description	: Container Terminal
Site Location	: Sparrows Point, MD
ARM Representative	: J. Barna & S. Lowe
Checked by	:
Drilling Company	: Connelly & Associates
Driller	: Jared
Drilling Equipment	: Sonic Rig

Date	: 9/29/2023
Total depth (ft)	: 20' bgs
Depth to water (0hr.)	: 14' bgs

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	REMARKS
0					
1	100	3.8	CT-016-SB-1	(0-2') FILL Slag GRAVEL with SILTY SAND, brown, loose (MOIST)	
2		0.6			
3		1.1		(2-5') FILL Concrete (DRY)	Rebar Observed.
4		2.6			
5		2.4			
6	60	-		(5-7') No Recovery.	
7		-			
8		85.2	CT-016-SB-8	(7-10') FILL Slag GRAVEL with SILT and some CLAY, loose, brown, no plasticity, no cohesion (MOIST)	
9		17.1			
10		12.5	CT-016-SB-10		
11	90	-		(10-11') No Recovery.	
12		1.7		(11-12') FILL Slag GRAVEL with SILT and some CLAY, red-brown, firm, low plasticity, low cohesion (MOIST)	
13		0.5		(12-14') FILL Slag GRAVEL with SAND, red-brown, loose (MOIST)	
14		0.8			Wet at 14' bgs
15		1.5		(14-19.7') FILL Slag GRAVEL with SAND, grey- black, loose (WET)	
16	100	-			
17		-			
18		-			Moderate Petroleum Odor (18-20') bgs
19		-			
20		-		(19.7-20') SAND Grey, very fine-graine, firm (WET)	

Total Borehole Depth: 20' bgs
(per Work Plan).
bgs: Below ground surface

ARM Group LLC
Engineers and Scientists

Boring ID: CT-017-SB

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Client	: Tradepoint Atlantic
ARM Project No.	: 21010210
Project Description	: Container Terminal
Site Location	: Sparrows Point, MD
ARM Representative	: J. Barna & S. Lowe
Checked by	:
Drilling Company	: Connelly & Associates
Driller	: Jared
Drilling Equipment	: Sonic Rig

Date	: 10/17/2023
Total depth (ft)	: 20' bgs
Depth to water (0hr.)	: 13' bgs

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	REMARKS
0					
		57.8	CT-017-SB-1	(0-1') FILL Slag GRAVEL with SILT, dark brown, loose (MOIST)	Faint Manure Odor (0-1') bgs
1		29.9		(1-3') FILL Slag GRAVEL with SILT and some SAND, loose, brown (DRY)	
2	60	28.8			
3		-		(3-5') No Recovery.	
4		-			
5		1.4		(5-6.5') FILL Slag GRAVEL with SILT, loose, grey to brown (DRY)	
6		8.3		(6.5-7') FILL Slag GRAVEL with SILT and soem CLAY, red-brown, losse, no cohesion, no plastcity (DRY)	
7	100	10.6		(7-10') FILL Slag GRAVEL with SILTY SAND, dark brown- black, loose (MOIST)	
8		13.7	CT-017-SB-9		
9		46.5	CT-017-SB-10		
10					

Total Borehole Depth: 20' bgs
(per Work Plan).
bgs: Below ground surface

ARM Group LLC
Engineers and Scientists

Boring ID: CT-017-SB

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Client	: Tradepoint Atlantic
ARM Project No.	: 21010210
Project Description	: Container Terminal
Site Location	: Sparrows Point, MD
ARM Representative	: J. Barna & S. Lowe
Checked by	:
Drilling Company	: Connelly & Associates
Driller	: Jared
Drilling Equipment	: Sonic Rig

Date	: 10/17/2023
Total depth (ft)	: 20' bgs
Depth to water (0hr.)	: 13' bgs

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	REMARKS
10					
		-		(10-13') No Recovery.	
11					
		-			
12					
	40	-			
13					Wet at 13' bgs
		131.5		(13-15') FILL Slag GRAVEL with SILTY SAND, brown, loose (WET)	
14					
		127.5			
15					
				(15-15.5') No Recovery.	
		185.4		(15.5-18') FILL Slag GRAVEL with SAND, black, NAPL observed, loose (WET)	Strong Petroleum Odor (16-18') bgs
16					
		271.5			
17					
	90	156.1			
18					Strong Petroleum Odor (15.5-19') bgs
		355.6		(18-19') FILL SILT, black, NAPL infused, loose (WET)	
19					NAPL Observed (15.5-19.5') bgs
		524.1		(19-19.5') FILL CLAY, grey, firm, no plasticity, no cohesion (WET)	
20				(19.5-20') FILL SAND with SILT and trace GRAVEL, brown, loose (WET)	

Total Borehole Depth: 20' bgs
(per Work Plan).
bgs: Below ground surface

ARM Group LLC
Engineers and Scientists

Boring ID: CT-018-SB

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Client	: Tradepoint Atlantic
ARM Project No.	: 21010210
Project Description	: Container Terminal
Site Location	: Sparrows Point, MD
ARM Representative	: J. Barna & S. Lowe
Checked by	:
Drilling Company	: Connelly & Associates
Driller	: Jared
Drilling Equipment	: Sonic Rig

Date	: 10/17/2023
Total depth (ft)	: 20' bgs
Depth to water (0hr.)	: 14' bgs

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	REMARKS
0					
		7.8	CT-018-SB-1	(0-2') FILL Slag GRAVEL with SAND and some SILT, black, loose (DRY)	
1		11.5			
2	90	7.0		(2-4') FILL Slag GRAVEL with SILTY SAND, loose, brown (DRY)	
3		16.0			
4		-		(4-6') No Recovery.	
5		-			
6		16.7		(6-7') FILL Slag GRAVEL with SILTY SAND, loose, brown (DRY)	
7	90	14.7		(7-8') FILL Slag GRAVEL with SILTY SAND, loose, dark brown (DRY)	
8		16.9	CT-018-SB-9	(8-10') FILL Slag GRAVEL with SILTY SAND, dark brown, loose (DRY)	
9		9.6	CT-018-SB-10		
10					

Total Borehole Depth: 20' bgs
(per Work Plan).
bgs: Below ground surface

ARM Group LLC
Engineers and Scientists

Boring ID: CT-018-SB

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Client	: Tradepoint Atlantic
ARM Project No.	: 21010210
Project Description	: Container Terminal
Site Location	: Sparrows Point, MD
ARM Representative	: J. Barna & S. Lowe
Checked by	:
Drilling Company	: Connelly & Associates
Driller	: Jared
Drilling Equipment	: Sonic Rig

Date	: 10/17/2023
Total depth (ft)	: 20' bgs
Depth to water (0hr.)	: 14' bgs

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	REMARKS
10					
		-		(10-13') No Recovery.	
11					
		-			
12					
	40	-			
13					
		23.5		(13-14') FILL Slag GRAVEL with SAND and SILT, dark brown, loose (MOIST)	
14					Wet at 14' bgs
		30.1		(14-15') FILL Slag GRAVEL, dark brown, loose (WET)	Strong Creostote Odor (14-15') bgs
15					
		-		(15-17') No Recovery.	
16					
		-			
17					
	60	83.8		(17-18') FILL Slag GRAVEL with SAND, dark brown, loose (WET)	
18					NAPL Observed (18-19') bgs
		643.8		(18-19.5') FILL Slag GRAVEL, black, loose, NAPL observed (WET)	Strong Petroleum Odor and Sheen (18-19.9') bgs
19					Strong Petroleum Odor (19.5-20') bgs
		1394.0		(19.5-20') FILL SILTY SAND, black, loose (WET)	
20					

Total Borehole Depth: 20' bgs
(per Work Plan).
bgs: Below ground surface

ARM Group LLC
Engineers and Scientists

Boring ID: CT-019-SB

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Client	: Tradepoint Atlantic
ARM Project No.	: 21010210
Project Description	: Container Terminal
Site Location	: Sparrows Point, MD
ARM Representative	: J. Barna & S. Lowe
Checked by	:
Drilling Company	: Connelly & Associates
Driller	: Jared
Drilling Equipment	: Sonic Rig

Date	: 10/16/2023
Total depth (ft)	: 20' bgs
Depth to water (0hr.)	: 15' bgs

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	REMARKS
0					
1	60	19.7	CT-019-SB-1	(0-3') FILL Slag GRAVEL with SAND and SILT, black to dark grey, loose (DRY)	
2		2.1			
3		2.2			
4		-		(3-5') No Recovery.	
5		-			
6	100	5.6		(5-10') FILL Slag GRAVEL with SAND and SILT, with interbedded SAND, loose, black to dark grey (DRY)	
7		3.4			
8		18.9	CT-019-SB-8		
9		7.6			
10		6.2	CT-019-SB-10		
11	100	1.5		(10-15') FILL Slag GRAVEL with SAND and SILT, black to dark grey, loose (MOIST)	
12		7.0			
13		1.7			
14		17.3			
15		39.0			Wet at 15' bgs
16	100	5.1		(15-20') FILL Slag GRAVEL with SAND and SILT, black to dark grey, loose (WET)	
17		7.5			
18		10.1			
19		7.8			
20		5.7			

Total Borehole Depth: 20' bgs
(per Work Plan).
bgs: Below ground surface

ARM Group LLC
Engineers and Scientists

Boring ID: CT-020-SB

(page 1 of 1)

Client	: Tradepoint Atlantic
ARM Project No.	: 21010210
Project Description	: Container Terminal
Site Location	: Sparrows Point, MD
ARM Representative	: J. Barna & S. Lowe
Checked by	:
Drilling Company	: Connelly & Associates
Driller	: Jared
Drilling Equipment	: Sonic Rig

Date	: 9/29/2023
Total depth (ft)	: 20' bgs
Depth to water (0hr.)	: 12' bgs

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	REMARKS
0					
1	40	7.9	CT-020-SB-1	(0-1') FILL Slag GRAVEL with SAND and SILT, black, loose, roots present from (0-0.5') (DRY)	
2		-		(1-4') No Recovery.	
3		-			
4		-			
5		3.4		(4-7') FILL Slag GRAVEL with SAND and SILT, black, loose (DRY)	
6	100	1.6			
7		0.4			
8		2.5		(7-9') FILL Slag GRAVEL with SAND and SILT, black, loose (MOIST)	
9		7.2	CT-020-SB-9		
10		20.6	CT-020-SB-10	(9-10') FILL Slag GRAVEL with SAND, light brown, loose (MOIST)	
11		25.7		(10-12') FILL Slag GRAVEL with SAND and SILT, black, loose (MOIST)	
12	100	48.1		(12-20') FILL Slag GRAVEL with SAND and SILT, dark grey, loose (WET)	Wet at 12' bgs
13		-			
14		-			
15		-			
16		-			
17	100	-			
18		-			
19		-			
20		-			

Total Borehole Depth: 20' bgs
(per Work Plan).
bgs: Below ground surface

ARM Group LLC
Engineers and Scientists

Boring ID: CT-021-SB

(page 1 of 1)

Client	: Tradepoint Atlantic
ARM Project No.	: 21010210
Project Description	: Container Terminal
Site Location	: Sparrows Point, MD
ARM Representative	: J. Barna & S. Lowe
Checked by	:
Drilling Company	: Connelly & Associates
Driller	: Jared
Drilling Equipment	: Sonic Rig

Date	: 10/16/2023
Total depth (ft)	: 20' bgs
Depth to water (0hr.)	: 16' bgs

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	REMARKS
0					
1	100	8.8	CT-021-SB-1	(0-3') FILL Slag GRAVEL with SAND and SILT, brown, loose (DRY)	
2		16.5			
3		50.2			
4		32.1		(3-4') FILL Slag GRAVEL with SAND and SILT, dark brown, loose (DRY)	
5		32.0		(4-5') FILL Concrete (DRY)	
6	100	61.0		(5-10') FILL Slag GRAVEL with SAND and SILT, black, loose (MOIST)	
7		24.5			
8		113.4	CT-021-SB-8		
9		13.1			
10		32.4	CT-021-SB-10		
11	40	-		(10-13') No Recovery.	
12		-			
13		-			
14		11.5		(13-15') FILL Slag GRAVEL with SAND and SILT, black, loose (MOIST)	
15		3.8			
16	90	-		(15-16') No Recovery.	Wet at 16' bgs
17		4.5		(16-20') FILL Slag GRAVEL with SAND and SILT, black, loose (WET)	
18		3.2			
19		2.3			
20		4.3			

Total Borehole Depth: 20' bgs
(per Work Plan).
bgs: Below ground surface

ARM Group LLC
Engineers and Scientists

Boring ID: CT-022-SB

(page 1 of 1)

Client	: Tradepoint Atlantic
ARM Project No.	: 21010210
Project Description	: Container Terminal
Site Location	: Sparrows Point, MD
ARM Representative	: J. Barna & S. Lowe
Checked by	:
Drilling Company	: Connelly & Associates
Driller	: Jared
Drilling Equipment	: Sonic Rig

Date	: 10/11/2023
Total depth (ft)	: 20' bgs
Depth to water (0hr.)	: 16' bgs

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	REMARKS
0					
1	60	3.0	CT-022-SB-1	(0-3') FILL Slag GRAVEL with SAND and SILT, dark brown, loose (DRY)	
2		0.8			
3		0.6			
4		-		(3-5') No Recovery	
5		-			
6	100	3.6		(5-9') FILL Slag GRAVEL with SAND, dark brown, loose (DRY)	
7		5.0			
8		2.4			
9		6.4	CT-022-SB-9		
10	40	3.5	CT-022-SB-10	(9-10') FILL Slag GRAVEL with SILTY SAND, black, loose (DRY)	
11		-		(10-13') No Recovery.	
12		-			
13		-		(13-15') FILL Slag GRAVEL with SAND, dark brown, loose (MOIST)	
14		18.4			
15		17.3		(15-16') No Recovery.	
16	90	-		(16-17') FILL Slag GRAVEL with SAND and SILT, black, loose (WET)	Wet at 16' bgs
17		131.2			
18		18.9		(17-20') FILL Slag SILTY CLAY with some GRAVEL, black, low plasticity, low cohesion, loose (WET)	
19		17.8			
20		106.6			

Total Borehole Depth: 20' bgs
(per Work Plan).
bgs: Below ground surface

ARM Group LLC
Engineers and Scientists

Boring ID: CT-023-SB

(page 1 of 1)

Client	: Tradepoint Atlantic
ARM Project No.	: 21010210
Project Description	: Container Terminal
Site Location	: Sparrows Point, MD
ARM Representative	: J. Barna & S. Lowe
Checked by	:
Drilling Company	: Connelly & Associates
Driller	: Jared
Drilling Equipment	: Sonic Rig

Date	: 10/11/2023
Total depth (ft)	: 20' bgs
Depth to water (0hr.)	: 10' bgs

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	REMARKS
0		1.7	CT-023-SB-1	(0-4.5') FILL Slag GRAVEL with SILTY SAND, dark brown, loose (DRY)	
1		2.5			
2	100	9.7			
3		6.3			
4		3.6			
5		-		(4.5-5') FILL Slag GRAVEL with SILTY SAND, dark brown, firm (WET)	
6		9.5		(5-6') No Recovery.	
7	90	19.7	CT-023-SB-8	(6-9') FILL Slag GRAVEL with SILTY SAND, dark brown, loose (DRY)	
8		6.0			
9		1.9	CT-023-SB-10	(9-10') FILL Slag GRAVEL with SILT, trace CLAY, black-dark brown, firm (MOIST)	Wet at 10' bgs
10		-		(10-14') FILL Slag GRAVEL with SILT, dark brown, loose (WET)	Faint Petroleum Odor (10-20') bgs
11		-			
12	100	-			
13		-			
14		-		(14-15') FILL Slag GRAVEL with SILTY SAND, dark brown, loose (WET)	
15		-		(15-20') FILL Slag GRAVEL with SILT, dark brown, loose (WET)	
16		-			
17	100	-			
18		-			
19		-			
20					

Total Borehole Depth: 20' bgs
(per Work Plan).
bgs: Below ground surface

ARM Group LLC
Engineers and Scientists

Boring ID: CT-024-SB

(page 1 of 1)

Client	: Tradepoint Atlantic
ARM Project No.	: 21010210
Project Description	: Container Terminal
Site Location	: Sparrows Point, MD
ARM Representative	: J. Barna & S. Lowe
Checked by	:
Drilling Company	: Connelly & Associates
Driller	: Jared
Drilling Equipment	: Sonic Rig

Date	: 9/21/2023
Total depth (ft)	: 20' bgs
Depth to water (0hr.)	: 15' bgs

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	REMARKS
0					
1	60	19.4	CT-024-SB-1	(0-9') FILL Slag GRAVEL with SAND and SILT, dark brown, loose (DRY)	
2		8.4			
3		8.2			
4		-			
5		-			
6	100	7.6			
7		3.8			
8		4.8			
9		8.4	CT-024-SB-9		
10	20	2.7	CT-024-SB-10	(9-10') FILL Slag SAND with trace GRAVEL, light brown, loose (DRY)	
11		-		(10-14') No Recovery.	
12		-			
13		-			
14		-			
15		0.4		(14-15') FILL Slag GRAVEL with SILTY SAND, dark brown, loose (WET)	Wet at 15' bgs
16	100	-		(15-20') FILL Slag GRAVEL with SAND, dark brown, loose (WET)	
17		-		(15-20') FILL Slag GRAVEL with SILT, dark brown, loose (WET)	
18		-			
19		-			
20		-			

Total Borehole Depth: 20' bgs
(per Work Plan).
bgs: Below ground surface

APPENDIX C

B18-012-SB
B18-011-SB
B18-004-SB
B18-003-SB
B18-061-SB
B18-025-SB
CT-001-SB
B18-002-SB
B18-006-SB
B18-075-SB
B18-008-SB
B18-007-SB
B18-076-SB
CT-007-SB
B18-005-SB
CT-006-SB
CT-002-SB
CT-004-SB
CT-005-SB
CT-003-SB
CT-013-SB
CT-014-SB
CT-011-SB
CT-012-SB
CT-015-SB
CT-016-SB
CT-019-SB
CT-009-SB
CT-008-SB
CT-010-SB
CT-017-SB
CT-018-SB
CT-020-SB
CT-021-SB
B11-007-SB
B11-011-SB
B11-010-SB
B11-013-SB
B11-025-SB
B11-012-SB
B11-009-SB
B11-005-SB
B11-008-SB
B11-006-SB
B11-015-SB
B11-014-SB
B11-019-SB
B11-026-SB
B11-004-SB
B11-003-SB
B11-018-SB
CT-022-SB
B11-017-SB
B11-016-SB
B11-001-SB
B11-002-SB
B11-020-SB
CT-023-SB
B11-022-SB
B11-021-SB
CT-024-SB
B11-024-SB
B11-023-SB

LEGEND

- Soil Boring
- Former COA IM Cell
- Container Terminal LOD
- Parcel Boundary

Source: E

Container Terminal
Soil Boring Locations

January 17, 2024

Figure
C-1

ARM Group LLC
Engineers and Scientists

0 125 250 500 Feet

Tradepoint Atlantic
Sparrows Point

Baltimore County, MD
ARM Project 20010210

P:\EnviroAnalytics Group\1160443M EAG_TPA Redevelopment\GIS\Container Terminal Phase II Figures PALs VOCs.mxd

B18-061-SB-1
B18-061-SB-4
CT-001-SB-3
B18-076-SB-1
B18-075-SB-2
CT-002-SB-1
CT-002-SB-4
CT-002-SB-10
B18-007-SB-1
CT-007-SB-1
CT-007-SB-3
Benzene: 14.0
CT-007-SB-10
CT-006-SB-1
CT-006-SB-6
Benzene: 17.0
Ethylbenzene: 340
CT-006-SB-10
Benzene: 16.0
Ethylbenzene: 130
CT-004-SB-9
CT-004-SB-10
Benzene: 9.2
CT-003-SB-3
CT-003-SB-10
CT-013-SB-1
CT-013-SB-7
CT-013-SB-10
CT-014-SB-4
CT-014-SB-10
CT-011-SB-4
CT-015-SB-1
CT-015-SB-3
CT-015-SB-10
CT-019-SB-1
CT-019-SB-8
CT-009-SB-3
CT-010-SB-7
CT-010-SB-10
CT-016-SB-8
CT-016-SB-10
CT-017-SB-1
CT-017-SB-9
CT-017-SB-10
CT-018-SB-9
CT-020-SB-10
CT-021-SB-8
CT-021-SB-10
B11-011-SB-2
B11-011-SB-9
B11-010-SB-2
B11-010-SB-6
B11-013-SB-4
B11-009-SB-4
B11-009-SB-8
B11-025-SB-1
B11-025-SB-4
B11-025-SB-10
B11-012-SB-2
B11-012-SB-8
B11-005-SB-5
B11-006-SB-7
B11-026-SB-9
B11-026-SB-10
B11-004-SB-1
B11-004-SB-4
B11-018-SB-8
B11-016-SB-4
B11-016-SB-10
CT-023-SB-8
CT-024-SB-1
B11-022-SB-1
B11-022-SB-5
B11-021-SB-1
B11-021-SB-4
B11-024-SB-5

LEGEND

- Soil Boring
- Former COA IM Cell
- Container Terminal LOD
- Parcel Boundary

Container Terminal
VOC Soil PAL Exceedances (mg/kg)
January 18, 2024

Figure
C-2

ARM Group LLC
Engineers and Scientists

0 125 250 500 Feet

Tradepoint Atlantic
Sparrows Point

Baltimore County, MD
ARM Project 20010210

Source: E

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CT-004-SB-1

CT-004-SB-9
Benz[a]anthracene: 350
Benzo[a]pyrene: 200
Benzo[b]fluoranthene: 200
Dibenz[a,h]anthracene: 22.0
Indeno[1,2,3-c,d]pyrene: 150
Naphthalene: 2,400

CT-004-SB-10
Benz[a]anthracene: 130
Benzo[a]pyrene: 73.0
Benzo[b]fluoranthene: 72.0
Dibenz[a,h]anthracene: 8.0
Indeno[1,2,3-c,d]pyrene: 52.0
Naphthalene: 1,100

B18-011-SB-1

B18-011-SB-4
Benz[a]anthracene: 135
Benzo[a]pyrene: 126
Benzo[b]fluoranthene: 135
Dibenz[a,h]anthracene: 5.7
Indeno[1,2,3-c,d]pyrene: 49.0
Naphthalene: 140

B18-076-SB-1
B18-012-SB-1
B18-006-SB-1
B18-004-SB-1
B18-025-SB-1
B18-025-SB-5
CT-001-SB-1
CT-001-SB-3
B18-061-SB-1
B18-061-SB-4
B18-002-SB-1
B18-003-SB-1
B18-075-SB-2
Benzo[a]pyrene: 2.3
B18-075-SB-5.5
Benzo[a]pyrene: 7.1
B18-075-SB-10
Benz[a]anthracene: 101
Benzo[a]pyrene: 78.9
Benzo[b]fluoranthene: 150
Dibenz[a,h]anthracene: 12.4
Indeno[1,2,3-c,d]pyrene: 43.2
B18-008-SB-1
B18-007-SB-1
B18-007-SB-4
B18-005-SB-1
CT-002-SB-1
CT-002-SB-4
CT-002-SB-10
CT-013-SB-1
CT-013-SB-7
Benzo[a]pyrene: 17.0
Benzo[b]fluoranthene: 22.0
Dibenz[a,h]anthracene: 2.4
CT-013-SB-10
CT-006-SB-1
CT-006-SB-6
Benz[a]anthracene: 42.0
Benzo[a]pyrene: 35.0
Benzo[b]fluoranthene: 34.0
Dibenz[a,h]anthracene: 4.8
Indeno[1,2,3-c,d]pyrene: 24.0
Naphthalene: 1,300
CT-006-SB-10
Benzo[a]pyrene: 4.1
Naphthalene: 410
CT-007-SB-1
CT-007-SB-3
Benz[a]anthracene: 820
Benzo[a]pyrene: 460
Benzo[b]fluoranthene: 490
Dibenz[a,h]anthracene: 58.0
Indeno[1,2,3-c,d]pyrene: 310
Naphthalene: 3,200
CT-007-SB-10
Benz[a]anthracene: 34.0
Benzo[a]pyrene: 25.0
Benzo[b]fluoranthene: 29.0
Dibenz[a,h]anthracene: 3.6
Naphthalene: 86.0
CT-003-SB-1
CT-003-SB-3
CT-003-SB-10
CT-005-SB-1
CT-005-SB-3
CT-015-SB-1
Benzo[a]pyrene: 6.0
CT-015-SB-3
Benzo[a]pyrene: 14.0
Dibenz[a,h]anthracene: 2.7
CT-015-SB-10
Benzo[a]pyrene: 2.1
CT-011-SB-1
CT-011-SB-4
CT-012-SB-1
CT-012-SB-9
CT-016-SB-1
CT-016-SB-8
CT-016-SB-10
CT-014-SB-1
CT-014-SB-4
CT-014-SB-10
CT-009-SB-1
CT-009-SB-3
Benzo[a]pyrene: 2.8
CT-009-SB-10
CT-010-SB-1
Benzo[a]pyrene: 2.9
CT-010-SB-7
Benzo[a]pyrene: 7.4
CT-010-SB-10
Benzo[a]pyrene: 8.4
CT-017-SB-1
Naphthalene: 12.0
CT-017-SB-9
CT-017-SB-10
CT-019-SB-1
CT-019-SB-8
Benzo[a]pyrene: 2.9
CT-019-SB-10
Benzo[a]pyrene: 2.4
CT-008-SB-1
Benzo[a]pyrene: 3.6
CT-008-SB-3
CT-018-SB-1
CT-018-SB-9
CT-021-SB-1
CT-021-SB-8
CT-021-SB-10
B11-010-SB-2
Benzo[a]pyrene: 2.6
B11-010-SB-6
B11-007-SB-1
B11-007-SB-5
B11-011-SB-2
B11-011-SB-9
CT-020-SB-1
CT-020-SB-9
CT-020-SB-10
B11-013-SB-1
B11-013-SB-4
B11-013-SB-10
B11-009-SB-4
B11-009-SB-8
B11-025-SB-1
B11-025-SB-4
B11-025-SB-10
B11-012-SB-2
B11-012-SB-8
B11-008-SB-2
B11-008-SB-6
B11-015-SB-3
B11-006-SB-7
B11-005-SB-2
B11-005-SB-5
Benzo[a]pyrene: 5.2
B11-015-SB-1
B11-015-SB-5
B11-014-SB-1
B11-014-SB-5
B11-003-SB-1
B11-003-SB-5
Benzo[a]pyrene: 2.6
B11-019-SB-1
B11-019-SB-5
B11-004-SB-1
B11-004-SB-4
B11-026-SB-1
Benz[a]anthracene: 21.0
Benzo[a]pyrene: 14.0
Naphthalene: 40.0
B11-026-SB-9
Benzo[a]pyrene: 3.1 J
Naphthalene: 61.0
B11-026-SB-10
CT-022-SB-1
CT-022-SB-9
B11-017-SB-1
Benzo[a]pyrene: 8.4
B11-017-SB-5
B11-018-SB-1
B11-018-SB-8
B11-002-SB-1
B11-002-SB-5
B11-001-SB-1
Benzo[a]pyrene: 2.9
B11-001-SB-5
Benzo[a]pyrene: 5.6
CT-023-SB-1
CT-023-SB-8
CT-024-SB-1
Benzo[a]pyrene: 8.3
Naphthalene: 19.0
CT-024-SB-9
B11-020-SB-1
B11-020-SB-4.5
B11-016-SB-1
Benzo[a]pyrene: 4.5
B11-016-SB-4
Benzo[a]pyrene: 6.6
B11-601-SB-10
B11-021-SB-1
B11-021-SB-4
B11-022-SB-1
Benzo[a]pyrene: 2.6
B11-022-SB-5
B11-023-SB-1
B11-023-SB-5
B11-024-SB-1
B11-024-SB-5

LEGEND

- Soil Boring
- Former COA IM Cell
- Container Terminal LOD
- Parcel Boundary

Container Terminal
SVOC Soil PAL Exceedances (mg/kg)

January 18, 2024

Figure
C-3

ARM Group LLC
Engineers and Scientists

0 125 250 500 Feet

Tradepoint Atlantic
Sparrows Point

Baltimore County, MD
ARM Project 20010210

Source: E

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B18-004-SB-1
B18-012-SB-1
B18-011-SB-1
B18-011-SB-4
B18-025-SB-1
B18-025-SB-5
B18-076-SB-1
B18-006-SB-1
B18-061-SB-1
B18-061-SB-4
B18-007-SB-1
B18-007-SB-4
CT-001-SB-1
CT-001-SB-3
B18-002-SB-1
B18-003-SB-1
B18-075-SB-2
B18-075-SB-5.5
B18-075-SB-10
B18-008-SB-1
B18-005-SB-1
CT-002-SB-1
CT-002-SB-4
CT-002-SB-10
CT-005-SB-1
CT-005-SB-3
CT-004-SB-1
CT-004-SB-9
Diesel Range Organics: 13,000
Oil and Grease: 10,100
CT-004-SB-10
Diesel Range Organics: 9,600
Oil and Grease: 7,210
CT-006-SB-1
CT-006-SB-6
Diesel Range Organics: 17,000
Oil and Grease: 28,000
CT-006-SB-10
Diesel Range Organics: 9,400
Oil and Grease: 15,500
CT-007-SB-1
CT-007-SB-3
Diesel Range Organics: 26,000
Oil and Grease: 36,200
CT-007-SB-10
CT-003-SB-1
Oil and Grease: 7,860
CT-003-SB-3
CT-003-SB-10
CT-014-SB-1
CT-014-SB-4
CT-014-SB-10
CT-011-SB-1
CT-011-SB-4
CT-012-SB-1
CT-012-SB-9
CT-015-SB-1
CT-015-SB-3
CT-015-SB-10
CT-013-SB-1
CT-013-SB-7
CT-013-SB-10
CT-019-SB-1
CT-019-SB-8
CT-009-SB-1
CT-009-SB-3
CT-010-SB-1
CT-010-SB-7
CT-010-SB-10
CT-016-SB-1
CT-016-SB-8
CT-016-SB-10
CT-008-SB-1
CT-008-SB-3
CT-018-SB-1
CT-018-SB-9
CT-020-SB-1
CT-020-SB-9
CT-020-SB-10
CT-017-SB-1
CT-017-SB-9
CT-017-SB-10
CT-021-SB-1
CT-021-SB-8
CT-021-SB-10
B11-011-SB-2
B11-011-SB-9
B11-007-SB-1
B11-007-SB-5
B11-013-SB-1
B11-013-SB-4
B11-009-SB-4
B11-009-SB-8
B11-010-SB-2
B11-010-SB-6
B11-025-SB-1
B11-025-SB-4
B11-012-SB-2
B11-012-SB-8
B11-008-SB-1
B11-008-SB-6
B11-015-SB-1
B11-015-SB-5
B11-014-SB-1
B11-014-SB-5
B11-005-SB-2
B11-005-SB-5
B11-015-SB-3
B11-006-SB-7
B11-019-SB-1
B11-019-SB-5
B11-004-SB-1
B11-004-SB-4
B11-003-SB-1
B11-003-SB-5
CT-022-SB-1
CT-022-SB-9
B11-026-SB-1
B11-026-SB-9
Diesel Range Organics: 21,400
Oil and Grease: 24,800
B11-026-SB-10
Diesel Range Organics: 24,500
Oil and Grease: 23,300
B11-002-SB-1
B11-002-SB-5
B11-018-SB-1
B11-018-SB-8
B11-017-SB-1
B11-017-SB-5
B11-001-SB-1
B11-001-SB-5
CT-023-SB-1
CT-023-SB-8
B11-016-SB-1
B11-016-SB-4
B11-016-SB-10
B11-020-SB-1
B11-020-SB-4.5
B11-022-SB-1
B11-022-SB-5
B11-021-SB-1
B11-021-SB-5
CT-024-SB-1
CT-024-SB-9
B11-023-SB-1
B11-023-SB-5
B11-024-SB-1
B11-024-SB-5

LEGEND

- Soil Boring
- Soil Boring (NAPL Observed)
- Former COA IM Cell
- Container Terminal LOD
- Parcel Boundary

Source: E

Container Terminal
TPH/OG Soil PAL Exceedances (mg/kg)

January 18, 2024

Figure C-4

ARM Group LLC
Engineers and Scientists

0 125 250 500 Feet

Tradepoint Atlantic
Sparrows Point

Baltimore County, MD
ARM Project 20010210

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B18-012-SB-1
B18-011-SB-1
B18-004-SB-1
B18-025-SB-1
CT-001-SB-1
B18-076-SB-1
B18-002-SB-1
B18-061-SB-1
B18-003-SB-1
B18-006-SB-1
B18-008-SB-1
B18-007-SB-1
B18-075-SB-2
B18-005-SB-1
CT-002-SB-1
CT-004-SB-1
CT-007-SB-1
CT-005-SB-1
CT-006-SB-1
CT-003-SB-1
CT-013-SB-1
CT-014-SB-1
CT-011-SB-1
CT-012-SB-1
CT-015-SB-1
CT-019-SB-1
CT-010-SB-1
PCBs (total): 1.05
CT-009-SB-1
CT-017-SB-1
CT-016-SB-1
CT-020-SB-1
CT-008-SB-1
CT-018-SB-1
CT-021-SB-1
B11-011-SB-2
B11-007-SB-1
B11-013-SB-1
B11-010-SB-2
B11-009-SB-4
B11-025-SB-1
B11-012-SB-2
B11-005-SB-2
B11-015-SB-3
B11-008-SB-1
B11-015-SB-1
B11-026-SB-1
B11-014-SB-1
B11-003-SB-1
B11-019-SB-1
B11-004-SB-1
CT-022-SB-1
B11-017-SB-1
B11-018-SB-1
B11-002-SB-1
B11-016-SB-1
B11-001-SB-1
CT-023-SB-1
B11-020-SB-1
B11-022-SB-1
CT-024-SB-1
B11-021-SB-1
B11-024-SB-1
B11-023-SB-1

LEGEND

- Soil Boring
- Former COA IM Cell
- Container Terminal LOD
- Parcel Boundary

Source: E

Container Terminal
PCB Soil PAL Exceedances (mg/kg)

January 17, 2024

Figure
C-5

ARM Group LLC
Engineers and Scientists

0 125 250 500 Feet

Tradepoint Atlantic
Sparrows Point

Baltimore County, MD
ARM Project 20010210

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CT-001-SB-1
Chromium VI: 12.2 J-
CT-001-SB-3

B18-076-SB-1
Manganese: 29,100

B18-004-SB-1
Arsenic: 6.1
Chromium VI: 42.5

B18-012-SB-1

B18-011-SB-1

B18-011-SB-4
Arsenic: 14.0
Lead: 961

B18-025-SB-1
Thallium: 12.8

B18-025-SB-5
Arsenic: 15.1

B18-007-SB-1
Chromium VI: 7.2
Manganese: 31,300

B18-007-SB-4
Arsenic: 4.1

B18-061-SB-1
Arsenic: 22.5

B18-061-SB-4
Arsenic: 3.7

B18-006-SB-1

B18-003-SB-1

B18-002-SB-1
Arsenic: 7.9

B18-008-SB-1
Chromium VI: 93.2 J-
Manganese: 29,700

CT-004-SB-1

CT-004-SB-9

CT-004-SB-10
Arsenic: 3.47

B18-075-SB-2

B18-075-SB-5.5
Arsenic: 4.2

B18-075-SB-10
Arsenic: 5.2

CT-002-SB-1
Chromium VI: 7.88

CT-002-SB-4

B18-005-SB-1

CT-003-SB-1

CT-003-SB-3
Arsenic: 6.34

CT-003-SB-10
Arsenic: 21.7

CT-005-SB-1

CT-005-SB-3
Chromium VI: 9.28 J-
Manganese: 31,400

CT-007-SB-1
Arsenic: 4.37
Chromium VI: 14.0

CT-007-SB-3
Arsenic: 14.2

CT-007-SB-10
Arsenic: 13.4

CT-006-SB-1
Arsenic: 6.03
Chromium VI: 7.5
Manganese: 26,600

CT-006-SB-6
Arsenic: 6.59

CT-006-SB-10
Arsenic: 6.66

CT-013-SB-1
Arsenic: 3.15

CT-013-SB-7
Arsenic: 5.47

CT-013-SB-10

CT-011-SB-1

CT-011-SB-4
Arsenic: 3.91

CT-011-SB-10

CT-012-SB-1
Arsenic: 7.15

CT-012-SB-9
Arsenic: 8.99

CT-012-SB-10

CT-015-SB-1
Arsenic: 19.2
Lead: 2,600

CT-015-SB-3
Arsenic: 12.2

CT-015-SB-10
Arsenic: 5.51

CT-014-SB-1

CT-014-SB-4
Arsenic: 5.32

CT-014-SB-10

CT-019-SB-1
Arsenic: 3.97

CT-019-SB-8
Arsenic: 6.81

CT-019-SB-10
Arsenic: 13.4

CT-009-SB-1
Arsenic: 7.46

CT-009-SB-3
Arsenic: 8.48

CT-009-SB-10
Arsenic: 3.12

CT-017-SB-1
Arsenic: 4.26 J

CT-017-SB-9
Arsenic: 9.61 J

CT-017-SB-10
Arsenic: 6.65 J

CT-008-SB-1
Arsenic: 6.35

CT-008-SB-3
Arsenic: 4.98
Manganese: 31,700
Vanadium: 5,860

CT-008-SB-10
Arsenic: 4.24

CT-010-SB-1
Arsenic: 12.5

CT-010-SB-7
Arsenic: 12.4
Lead: 825

CT-010-SB-10
Arsenic: 6.09

CT-018-SB-1
Arsenic: 9.96 J

CT-018-SB-9
Arsenic: 12.4 J
Chromium VI: 8.32 J

CT-018-SB-10
Arsenic: 12.1
Chromium VI: 8.33 J

CT-016-SB-1
Arsenic: 3.3
Chromium VI: 12.6 J-

CT-016-SB-8
Arsenic: 4.92

CT-016-SB-10
Arsenic: 6.54

CT-020-SB-1
Arsenic: 4.43

CT-020-SB-9
Arsenic: 10.3

CT-020-SB-10
Arsenic: 5.64

CT-021-SB-1
Arsenic: 5.84

CT-021-SB-8
Arsenic: 5.64
Chromium VI: 16.2 J
Manganese: 28,000

CT-021-SB-10
Manganese: 46,100

B11-011-SB-2
Manganese: 64,800
Vanadium: 9,980

B11-011-SB-9
Arsenic: 4.4

B11-007-SB-1
Arsenic: 4.4

B11-007-SB-5

B11-025-SB-1
Manganese: 35,900
Thallium: 50.4

B11-025-SB-4
Manganese: 40,500

B11-025-SB-10

B11-009-SB-4
Thallium: 13.1

B11-009-SB-8
Manganese: 36,400
Thallium: 14.7
Vanadium: 5,840

B11-013-SB-1
Arsenic: 10.2 J

B11-013-SB-4

B11-012-SB-2
Arsenic: 5.3

B11-012-SB-8
Arsenic: 4.2

B11-005-SB-2

B11-005-SB-5

B11-008-SB-1
Arsenic: 4.2

B11-008-SB-6
Arsenic: 4.3
Thallium: 19.3 J

B11-010-SB-2
Arsenic: 11.4

B11-010-SB-6
Arsenic: 13.7
Manganese: 38,700
Thallium: 20.5

B11-015-SB-1
Arsenic: 13.4

B11-015-SB-5
Arsenic: 25.9

B11-006-SB-3

B11-006-SB-7
Arsenic: 6.6

B11-006-SB-12

B11-004-SB-1
Arsenic: 4.2 J

B11-004-SB-4
Arsenic: 5.7 J

B11-026-SB-1
Arsenic: 6.5

B11-026-SB-9
Arsenic: 6.5

B11-026-SB-10
Arsenic: 9.0

B11-014-SB-1
Arsenic: 4.3 J

B11-014-SB-5
Arsenic: 9.0 J
Manganese: 43,600
Thallium: 37.0

B11-003-SB-1
Arsenic: 5.5 J
Thallium: 21.1

B11-003-SB-5
Arsenic: 10.4 J

B11-019-SB-1
Manganese: 28,700
Thallium: 32.6

B11-019-SB-5
Manganese: 37,700
Thallium: 48.5

B11-002-SB-1
Arsenic: 9.0

B11-002-SB-5
Manganese: 36,400
Thallium: 70.1

B11-018-SB-1
Thallium: 15.5

B11-018-SB-8
Manganese: 60,000
Thallium: 85.4
Vanadium: 8,110

B11-018-SB-10
Manganese: 42,500

B11-001-SB-1
Thallium: 26.5

B11-001-SB-5
Arsenic: 5.0
Thallium: 16.5

CT-022-SB-1
Manganese: 26,600

CT-022-SB-9
Arsenic: 3.01
Manganese: 35,100

CT-022-SB-10
Arsenic: 5.75

B11-016-SB-1

B11-016-SB-4

B11-017-SB-1
Arsenic: 4.2 J

B11-017-SB-5
Arsenic: 14.1 J

B11-020-SB-1
Thallium: 14.1

B11-020-SB-4.5
Thallium: 15.6

B11-021-SB-1
Manganese: 32,400
Thallium: 36.5

B11-021-SB-5
Arsenic: 4.0
Manganese: 39,000
Thallium: 52.9

B11-022-SB-1
Arsenic: 3.0
Thallium: 18.3

B11-022-SB-5
Thallium: 18.2

CT-023-SB-1
Arsenic: 3.05
Chromium VI: 6.38 J-

CT-023-SB-8
Chromium VI: 7.62 J-

CT-023-SB-10
Chromium VI: 6.44

B11-023-SB-1
Arsenic: 3.4

B11-023-SB-5
Arsenic: 7.7

CT-024-SB-1
Arsenic: 4.72

CT-024-SB-9
Manganese: 34,000
Thallium: 15.7

CT-024-SB-10

B11-024-SB-1

B11-024-SB-5
Arsenic: 3.6

LEGEND

Soil Boring

Former COA IM Cell

Container Terminal LOD

Parcel Boundary

Container Terminal
Inorganic Soil PAL Exceedances (mg/kg)

January 18, 2024

Figure
C-6

ARM Group LLC
Engineers and Scientists

0 125 250 500 Feet

Tradepoint Atlantic
Sparrows Point

Baltimore County, MD
ARM Project 20010210

Source: E

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APPENDIX D

Container Terminal - PID Calibration Log

PROJECT NAME: Area B, Container Terminal Phase II				**SAMPLER NAME:** J. Barna			
PROJECT NUMBER: 21010210				**DATE: October 2023**		**PAGE** 1 of 1	
DATE/TIME	SAMPLER INITIALS	PID SERIAL #	FRESH AIR CAL	STANDARD	STANDARD CONCENTRATION	METER READING	COMMENTS
9/11/2023 8:30	JMB	592-603198	0.0	Isobutylene	100 ppm	100.0	-
9/21/2023 7:30	JMB	592-603198	0.0	Isobutylene	100 ppm	99.8	-
9/30/2023 8:00	SKL	592-603198	0.0	Isobutylene	100 ppm	99.9	-
10/11/2023 7:45	SKL	592-603198	0.0	Isobutylene	100 ppm	98.8	-
10/12/2023 7:45	JMB	592-603198	0.0	Isobutylene	100 ppm	99.6	-
10/13/2023 7:45	IMS	592-603198	0.0	Isobutylene	100 ppm	99.2	-
10/16/2023 8:00	IMS	592-603198	0.0	Isobutylene	100 ppm	99.7	-
10/17/2023 7:45	SKL	592-603198	0.0	Isobutylene	100 ppm	99.8	-

APPENDIX E

QA/QC Tracking Log

Trip Blank:	Date:		Sample IDs:		
1 TB	9/11/2023	1)	CT-001-SB-1		
		2)	CT-001-SB-3		
		3)	CT-005-SB-1		
		4)	CT-005-SB-3		
1 TB	9/21/2023	5)	CT-024-SB-1		
		6)	CT-024-SB-9		
		7)	CT-024-SB-10	Duplicate:	CT-023-SB-8
1 TB	9/29/2023	8)	CT-020-SB-1	Date:	10/11/2023
		9)	CT-020-SB-9	MS/MSD:	CT-023-SB-1
		10)	CT-020-SB-10	Date:	10/11/2023
		11)	CT-016-SB-1	Field Blank:	
		12)	CT-016-SB-8	Date:	10/11/2023
		13)	CT-016-SB-10	Eq. Blank:	
		14)	CT-022-SB-1	Date:	10/11/2023
		15)	CT-022-SB-9		
		16)	CT-022-SB-10		
1 TB 2 TB	10/11/2023	17)	CT-023-SB-1		
		18)	CT-023-SB-8		
		19)	CT-023-SB-10		
		20)	CT-008-SB-1		
		1)	CT-008-SB-3		
		2)	CT-008-SB-10		
1 TB 2 TB 3 TB 4 TB	10/12/2023	3)	CT-009-SB-1		
		4)	CT-009-SB-3		
		5)	CT-009-SB-10		
		6)	CT-010-SB-1		
		7)	CT-010-SB-7	Duplicate:	CT-013-SB-7
		8)	CT-010-SB-10	Date:	10/12/2023
		9)	CT-011-SB-1	MS/MSD:	CT-013-SB-1
		10)	CT-011-SB-4	Date:	10/12/2023
		11)	CT-011-SB-10	Field Blank:	
		12)	CT-012-SB-1	Date:	10/12/2023
		13)	CT-012-SB-9	Eq. Blank:	
		14)	CT-012-SB-10	Date:	10/12/2023
		15)	CT-013-SB-1		
		16)	CT-013-SB-7		
		17)	CT-013-SB-10		
1 TB 2 TB 3 TB	10/13/2023	18)	CT-014-SB-1		
		19)	CT-014-SB-4		
		20)	CT-014-SB-10		

Trip Blank:	Date:		Sample IDs:		
1 TB 2 TB 3 TB	1/13/2023	1)	CT-007-SB-1		
		2)	CT-007-SB-3		
		3)	CT-007-SB-10		
		4)	CT-006-SB-1		
		5)	CT-006-SB-6		
		6)	CT-006-SB-10		
		7)	CT-004-SB-1	Duplicate:	CT-004-SB-1
		8)	CT-004-SB-9	Date:	10/13/2023
		9)	CT-004-SB-10	MS/MSD:	CT-007-SB-1
1 TB 2 TB	10/16/2023	10)	CT-002-SB-1	Date:	10/13/2023
		11)	CT-002-SB-4	Field Blank:	
		12)	CT-002-SB-10	Date:	10/13/2023
		13)	CT-003-SB-1	Eq. Blank:	
		14)	CT-003-SB-3	Date:	10/13/2023
		15)	CT-003-SB-10		
		16)	CT-019-SB-1		
		17)	CT-019-SB-8		
		18)	CT-019-SB-10		
		19)	CT-015-SB-1		
		20)	CT-015-SB-3		
		1)	CT-015-SB-10		
		2)	CT-021-SB-1		
		3)	CT-021-SB-8		
		4)	CT-021-SB-10		
1 TB 2 TB	10/17/2023	5)	CT-017-SB-1		
		6)	CT-017-SB-9		
		7)	CT-017-SB-10	Duplicate:	CT-017-SB-9
		8)	CT-018-SB-1	Date:	10/17/2023
		9)	CT-018-SB-9	MS/MSD:	CT-018-SB-1
		10)	CT-018-SB-10	Date:	10/17/2023
		11)		Field Blank:	
		12)		Date:	10/17/2023
		13)		Eq. Blank:	
		14)		Date:	10/17/2023
		15)			
		16)			
		17)			
		18)			
		19)			
		20)			

Soil samples with a sustained PID reading of 10 ppm or greater were collected for VOCs.
VOC samples were placed in a cooler with a trip blank.

APPENDIX F

EVALUATION OF DATA COMPLETENESS
Percentage of Non-Rejected Results vs. Total Results
(Only data which underwent validation are included)

Parameter	Parameter Group	Matrix	Unit	# of Validated Results	Detections	# of Rejected Results	# of Non-rejected Results	Completeness
1,1,1-Trichloroethane	VOC	Soil	mg/kg	9	0	0	9	100%
1,1,2,2-Tetrachloroethane	VOC	Soil	mg/kg	9	0	0	9	100%
1,1,2-Trichloro-1,2,2-Trifluoroethane	VOC	Soil	mg/kg	9	0	0	9	100%
1,1,2-Trichloroethane	VOC	Soil	mg/kg	9	0	0	9	100%
1,1-Biphenyl	SVOC	Soil	mg/kg	33	17	0	33	100%
1,1-Dichloroethane	VOC	Soil	mg/kg	9	0	0	9	100%
1,1-Dichloroethene	VOC	Soil	mg/kg	9	0	0	9	100%
1,2,3-Trichlorobenzene	VOC	Soil	mg/kg	9	0	0	9	100%
1,2,4,5-Tetrachlorobenzene	SVOC	Soil	mg/kg	33	0	0	33	100%
1,2,4-Trichlorobenzene	VOC	Soil	mg/kg	9	0	0	9	100%
1,2-Dibromo-3-chloropropane	VOC	Soil	mg/kg	9	0	0	9	100%
1,2-Dibromoethane	VOC	Soil	mg/kg	9	0	0	9	100%
1,2-Dichlorobenzene	VOC	Soil	mg/kg	9	0	0	9	100%
1,2-Dichloroethane	VOC	Soil	mg/kg	9	0	0	9	100%
1,2-Dichloroethene (Total)	VOC	Soil	mg/kg	9	0	0	9	100%
1,2-Dichloropropane	VOC	Soil	mg/kg	9	0	0	9	100%
1,3-Dichlorobenzene	VOC	Soil	mg/kg	9	0	0	9	100%
1,3-Dichloropropene	VOC	Soil	mg/kg	9	0	0	9	100%
1,4-Dichlorobenzene	VOC	Soil	mg/kg	9	0	0	9	100%
1,4-Dioxane	VOC/SVOC	Soil	mg/kg	9	0	7	2	22%
2,3,4,6-Tetrachlorophenol	SVOC	Soil	mg/kg	33	0	13	20	61%
2,4,5-Trichlorophenol	SVOC	Soil	mg/kg	33	0	13	20	61%
2,4,6-Trichlorophenol	SVOC	Soil	mg/kg	33	0	13	20	61%
2,4-Dichlorophenol	SVOC	Soil	mg/kg	33	0	13	20	61%
2,4-Dimethylphenol	SVOC	Soil	mg/kg	33	1	13	20	61%
2,4-Dinitrophenol	SVOC	Soil	mg/kg	33	0	14	19	58%
2,4-Dinitrotoluene	SVOC	Soil	mg/kg	33	0	0	33	100%
2,6-Dinitrotoluene	SVOC	Soil	mg/kg	33	0	0	33	100%
2-Butanone (MEK)	VOC	Soil	mg/kg	9	1	0	9	100%
2-Chloronaphthalene	SVOC	Soil	mg/kg	33	0	0	33	100%
2-Chlorophenol	SVOC	Soil	mg/kg	33	0	13	20	61%
2-Hexanone	VOC	Soil	mg/kg	9	0	0	9	100%
2-Methylnaphthalene	SVOC	Soil	mg/kg	29	25	0	29	100%
2-Methylphenol	SVOC	Soil	mg/kg	33	1	12	21	64%
2-Nitroaniline	SVOC	Soil	mg/kg	33	0	0	33	100%
3&4-Methylphenol(m&p Cresol)	SVOC	Soil	mg/kg	33	4	11	22	67%
3,3'-Dichlorobenzidine	SVOC	Soil	mg/kg	33	0	0	33	100%
4-Chloroaniline	SVOC	Soil	mg/kg	33	0	0	33	100%
4-Methyl-2-pentanone (MIBK)	VOC	Soil	mg/kg	9	0	0	9	100%
4-Nitroaniline	SVOC	Soil	mg/kg	33	0	0	33	100%
Acenaphthene	SVOC	Soil	mg/kg	29	18	0	29	100%
Acenaphthylene	SVOC	Soil	mg/kg	29	26	0	29	100%
Acetone	VOC	Soil	mg/kg	9	5	0	9	100%
Acetophenone	SVOC	Soil	mg/kg	33	6	0	33	100%
Aluminum	Metal	Soil	mg/kg	18	18	0	18	100%
Anthracene	SVOC	Soil	mg/kg	29	26	0	29	100%
Antimony	Metal	Soil	mg/kg	18	4	0	18	100%
Aroclor 1016	PCB	Soil	mg/kg	9	0	0	9	100%
Aroclor 1221	PCB	Soil	mg/kg	9	0	0	9	100%
Aroclor 1232	PCB	Soil	mg/kg	9	0	0	9	100%
Aroclor 1242	PCB	Soil	mg/kg	9	1	0	9	100%
Aroclor 1248	PCB	Soil	mg/kg	9	0	0	9	100%
Aroclor 1254	PCB	Soil	mg/kg	9	5	0	9	100%
Aroclor 1260	PCB	Soil	mg/kg	9	3	0	9	100%
Aroclor 1262	PCB	Soil	mg/kg	9	0	0	9	100%
Aroclor 1268	PCB	Soil	mg/kg	9	2	0	9	100%
Arsenic	Metal	Soil	mg/kg	19	16	0	19	100%
Barium	Metal	Soil	mg/kg	18	18	0	18	100%
Benz[a]anthracene	SVOC	Soil	mg/kg	29	29	0	29	100%
Benzaldehyde	SVOC	Soil	mg/kg	33	1	0	33	100%
Benzene	VOC	Soil	mg/kg	9	7	0	9	100%
Benzo[a]pyrene	SVOC	Soil	mg/kg	29	28	0	29	100%
Benzo[b]fluoranthene	SVOC	Soil	mg/kg	29	29	0	29	100%
Benzo[g,h,i]perylene	SVOC	Soil	mg/kg	29	28	0	29	100%
Benzo[k]fluoranthene	SVOC	Soil	mg/kg	29	28	0	29	100%
Beryllium	Metal	Soil	mg/kg	18	15	0	18	100%
bis(2-chloroethoxy)methane	SVOC	Soil	mg/kg	33	0	0	33	100%
bis(2-Chloroethyl)ether	SVOC	Soil	mg/kg	33	0	0	33	100%
bis(2-Chloroisopropyl)ether	SVOC	Soil	mg/kg	33	0	0	33	100%
bis(2-Ethylhexyl)phthalate	SVOC	Soil	mg/kg	33	0	0	33	100%
Bromodichloromethane	VOC	Soil	mg/kg	9	0	0	9	100%
Bromoform	VOC	Soil	mg/kg	9	0	0	9	100%
Bromomethane	VOC	Soil	mg/kg	9	0	0	9	100%
Cadmium	Metal	Soil	mg/kg	18	18	0	18	100%
Calcium	Metal	Soil	mg/kg	18	18	0	18	100%
Caprolactam	SVOC	Soil	mg/kg	33	0	0	33	100%

EVALUATION OF DATA COMPLETENESS
Percentage of Non-Rejected Results vs. Total Results
(Only data which underwent validation are included)

Parameter	Parameter Group	Matrix	Unit	# of Validated Results	Detections	# of Rejected Results	# of Non-rejected Results	Completeness
Carbazole	SVOC	Soil	mg/kg	33	22	0	33	100%
Carbon disulfide	VOC	Soil	mg/kg	9	0	0	9	100%
Carbon tetrachloride	VOC	Soil	mg/kg	9	0	0	9	100%
Chlorobenzene	VOC	Soil	mg/kg	9	0	0	9	100%
Chloroethane	VOC	Soil	mg/kg	9	0	0	9	100%
Chloroform	VOC	Soil	mg/kg	9	0	0	9	100%
Chloromethane	VOC	Soil	mg/kg	9	0	0	9	100%
Chromium	Metal	Soil	mg/kg	18	18	0	18	100%
Chromium VI	Metal	Soil	mg/kg	18	17	0	18	100%
Chrysene	SVOC	Soil	mg/kg	29	29	0	29	100%
cis-1,2-Dichloroethene	VOC	Soil	mg/kg	9	0	0	9	100%
cis-1,3-Dichloropropene	VOC	Soil	mg/kg	9	0	0	9	100%
Cobalt	Metal	Soil	mg/kg	18	15	0	18	100%
Copper	Metal	Soil	mg/kg	18	18	0	18	100%
Cyanide, Total	CN	Soil	mg/kg	18	13	0	18	100%
Cyclohexane	VOC	Soil	mg/kg	9	1	0	9	100%
Dibenz[a,h]anthracene	SVOC	Soil	mg/kg	29	24	0	29	100%
Dibromochloromethane	VOC	Soil	mg/kg	9	0	0	9	100%
Dichlorodifluoromethane	VOC	Soil	mg/kg	9	0	0	9	100%
Diesel Range Organics	TPH	Soil	mg/kg	21	17	0	21	100%
Diethylphthalate	SVOC	Soil	mg/kg	33	0	0	33	100%
Di-n-butylphthalate	SVOC	Soil	mg/kg	33	0	0	33	100%
Di-n-ocytlphthalate	SVOC	Soil	mg/kg	33	0	0	33	100%
Ethylbenzene	VOC	Soil	mg/kg	9	5	0	9	100%
Fluoranthene	SVOC	Soil	mg/kg	29	29	0	29	100%
Fluorene	SVOC	Soil	mg/kg	29	24	0	29	100%
Gasoline Range Organics	TPH	Soil	mg/kg	21	7	0	21	100%
Hexachlorobenzene	SVOC	Soil	mg/kg	33	0	0	33	100%
Hexachlorobutadiene	SVOC	Soil	mg/kg	33	0	0	33	100%
Hexachlorocyclopentadiene	SVOC	Soil	mg/kg	33	0	0	33	100%
Hexachloroethane	SVOC	Soil	mg/kg	33	0	0	33	100%
Indeno[1,2,3-c,d]pyrene	SVOC	Soil	mg/kg	29	28	0	29	100%
Iron	Metal	Soil	mg/kg	18	18	0	18	100%
Isophorone	SVOC	Soil	mg/kg	33	0	0	33	100%
Isopropylbenzene	VOC	Soil	mg/kg	9	2	0	9	100%
Lead	Metal	Soil	mg/kg	18	18	0	18	100%
Magnesium	Metal	Soil	mg/kg	18	18	0	18	100%
Manganese	Metal	Soil	mg/kg	18	18	0	18	100%
Mercury	Metal	Soil	mg/kg	18	8	0	18	100%
Methyl Acetate	VOC	Soil	mg/kg	9	1	0	9	100%
Methyl tert-butyl ether (MTBE)	VOC	Soil	mg/kg	9	0	0	9	100%
Methylene Chloride	VOC	Soil	mg/kg	9	0	0	9	100%
Naphthalene	SVOC	Soil	mg/kg	29	28	0	29	100%
Nickel	Metal	Soil	mg/kg	18	18	0	18	100%
Nitrobenzene	SVOC	Soil	mg/kg	33	0	0	33	100%
N-Nitroso-di-n-propylamine	SVOC	Soil	mg/kg	33	0	0	33	100%
N-Nitrosodiphenylamine	SVOC	Soil	mg/kg	33	0	0	33	100%
Oil and Grease	TPH	Soil	mg/kg	21	16	0	21	100%
PCBs (total)	PCB	Soil	mg/kg	9	6	0	9	100%
Pentachlorophenol	SVOC	Soil	mg/kg	53	0	17	36	68%
Phenanthrene	SVOC	Soil	mg/kg	29	29	0	29	100%
Phenol	SVOC	Soil	mg/kg	33	1	13	20	61%
Potassium	Metal	Soil	mg/kg	18	18	0	18	100%
Pyrene	SVOC	Soil	mg/kg	29	29	0	29	100%
Selenium	Metal	Soil	mg/kg	18	1	0	18	100%
Silver	Metal	Soil	mg/kg	18	13	0	18	100%
Sodium	Metal	Soil	mg/kg	18	18	0	18	100%
Styrene	VOC	Soil	mg/kg	9	0	0	9	100%
Tetrachloroethene	VOC	Soil	mg/kg	9	1	0	9	100%
Thallium	Metal	Soil	mg/kg	18	12	0	18	100%
Toluene	VOC	Soil	mg/kg	9	5	0	9	100%
trans-1,2-Dichloroethene	VOC	Soil	mg/kg	9	0	0	9	100%
trans-1,3-Dichloropropene	VOC	Soil	mg/kg	9	0	0	9	100%
Trichloroethene	VOC	Soil	mg/kg	9	0	0	9	100%
Trichlorofluoromethane	VOC	Soil	mg/kg	9	0	0	9	100%
Vanadium	Metal	Soil	mg/kg	18	18	0	18	100%
Vinyl chloride	VOC	Soil	mg/kg	9	0	0	9	100%
Xylenes	VOC	Soil	mg/kg	9	6	0	9	100%
Zinc	Metal	Soil	mg/kg	18	18	0	18	100%

Data validation has been completed for a representative 30% of all samples