RESPONSE AND DEVELOPMENT WORK PLAN

AREA B: SUB-PARCEL B22-2
TRADEPOINT ATLANTIC
SPARROWS POINT, MARYLAND

Prepared For:

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1.0 INTRODUCTION

ARM Group LLC (ARM), on behalf of Tradepoint Atlantic, has prepared this Response and Development Work Plan (RADWP) for a portion of the Tradepoint Atlantic property that has been designated as Area B: Sub-Parcel B22-2 (the Site). Tradepoint Atlantic submitted a letter (**Appendix A**) requesting an expedited plan review to achieve construction deadlines for the proposed development on this Site. Parcel B22 is comprised of approximately 131 acres of the approximately 3,100-acre former plant property. As shown on **Figure 1**, Sub-Parcel B22-2 consists of approximately 45.0 acres located within Parcel B22 and Parcel B21.

As shown on **Figure 2** and **Figure 3**, Sub-Parcel B22-2 is slated for development and occupancy as a logistics center (Logistics Center III), with a total area of approximately 700,000 square feet, which will include storage and office space. Associated water lines, sanitary sewer lines, storm drains, gas and electric lines, conventional and trailer parking, access roads, and interior roads are also proposed. The planned development activities will generally include grading; construction of the main 700,000 square foot building; construction of two guard shacks; installation of utilities; landscaping; and paving of parking areas and roadways. Subsequent site-use will involve workers in the on-site building, and truck drivers entering and leaving the Site with goods. Narrow areas within the Limit of Disturbance (LOD) will be utilized to place fill material to tie into the surrounding grade outside of the development area designated as Sub-Parcel B22-2 (as shown on the attached development plan drawings).

A Parcel B22 Logistics Center Grading Plan (Revision 0 dated March 31, 2020) was previously submitted to allow Tradepoint Atlantic to proceed with grading (site preparation) for the future construction of the Logistics Center III. The proposed grading work was limited to the footprint of the proposed logistics center and the immediately surrounding area. The preceding plan did not include the full scope of grading work required to facilitate development of Sub-Parcel B22-2 as described herein. The Grading Plan was approved for implementation on April 1, 2020, and the scope of work proposed in that plan has been substantially completed.

The conduct of any environmental assessment and cleanup activities on the Tradepoint Atlantic property, as well as any associated development, is subject to the requirements outlined in the following agreements:

- Administrative Consent Order (ACO) between Tradepoint Atlantic (formerly Sparrows Point Terminal, LLC) and the Maryland Department of the Environment (MDE), effective September 12, 2014; and
- Settlement Agreement and Covenant Not to Sue (SA) between Tradepoint Atlantic (formerly Sparrows Point Terminal, LLC) and the United States Environmental Protection Agency (USEPA), effective November 25, 2014.

An application to enter the full Tradepoint Atlantic property (3,100 acres) into the MDE Voluntary Cleanup Program (MDE-VCP) 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 property include demolition and redevelopment over the next several years. Sub-Parcel B22-2 is part of the acreage remains subject to the requirements of 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.

In consultation with the MDE, Tradepoint Atlantic affirms that it desires to accelerate the assessment, remediation, and redevelopment of certain sub-parcels within the larger site due to current market conditions. To that end, the MDE and Tradepoint Atlantic agree that the Controlled Hazardous Substance (CHS) Act (Section 7-222 of the Environment Article) and the CHS Response Plan (Code of Maryland Regulations (COMAR) 26.14.02) shall serve as the governing statutory and regulatory authority for completing the development activities on Sub-Parcel B22-2 and complement the statutory requirements of the VCP (Section 7-501 of the Environment Article). Upon submission of a RADWP and completion of any remedial activities for the sub-parcel, the MDE shall issue a No Further Action Letter (NFA) upon a recordation of an Environmental Covenant describing any necessary land use controls for the specific sub-parcel. At such time that all the sub-parcels within the larger parcel(s) have completed remedial activities, Tradepoint Atlantic shall submit to the MDE a request for issuing a Certificate of Completion (COC) as well as all pertinent information concerning completion of remedial activities conducted on the parcel. Once the VCP has completed its review of the submitted information it shall issue a COC for the entire parcel described in Tradepoint Atlantic's VCP application.

Alternatively, Tradepoint Atlantic or other entity may elect to submit an application for a specific sub-parcel and submit it to the VCP for review and acceptance. If the application is received after the cleanup and redevelopment activities described in this RADWP are implemented and a NFA is issued by the MDE pursuant to the CHS Act, the VCP shall prepare a No Further Requirements Determination for the sub-parcel.

If Tradepoint Atlantic or other entity has not carried out cleanup and redevelopment activities described in the RADWP, the cleanup and redevelopment activities may be conducted under the oversight authority of either the VCP or the CHS Act, so long as those activities comport with this RADWP.

This RADWP provides a Site description and history; summary of environmental conditions identified by the Phase I Environmental Site Assessment (ESA); summary of relevant findings and environmental conditions identified by the Parcel B21 and Parcel B22 Phase II Investigations (and related supplemental investigations) and Finishing Mills Groundwater Phase II Investigation; a human health Screening Level Risk Assessment (SLRA) conducted for the identified conditions; and any necessary engineering and/or institutional controls to facilitate the planned Sub-Parcel

B22-2 development and address the impacts and potential human health exposures. These controls include work practices and applicable protocols that are submitted for approval to support the development and use of the Site. Engineering/institutional controls approved and installed for this RADWP shall be described in closure certification documentation submitted to the MDE demonstrating that exposure pathways on the Site are addressed in a manner that protects public health and the environment.

Parcel B22 contains two other development areas covered by previously approved RADWPs:

- The Parcel B22, Phase 1 Development consists of approximately 68.2 acres located within Parcel B22. The details of this development project can be found in the approved Parcel B22, Phase 1 RADWP (Revision 5 dated March 28, 2017 and updated March 30, 2017 and April 11, 2017) and Development Completion Report (Revision 0 dated July 15, 2020).

- Sub-Parcel B6-1 consists of approximately 69.4 acres, with the majority located within Parcel B6, but also extending into Parcels B22 and B3. The details of this development project can be found in the approved Sub-Parcel B6-1 RADWP (Revision 2 dated July 7, 2017). The Development Completion Report for this project is forthcoming.

The referenced RADWPs, in addition to this document, address most of the acreage within Parcel B22. No existing caps will be disturbed during this Sub-Parcel B22-2 development project. As shown on **Figure 4**, Sub-Parcel B22-2, Parcel B22, Phase 1, and Sub-Parcel B6-1 overlap portions of the investigative Parcel B22. The remaining acreage of Parcel B22 will be addressed in future work associated with completion of the obligations of the ACO and associated VCP requirements. This work will include assessments of risk and, if necessary, RADWPs to address unacceptable risks associated with the proposed future land use. As noted above, narrow areas within the LOD will be utilized to place fill material to tie into the surrounding grade outside of the Sub-Parcel B22-2 (as shown on the attached development plan drawings). The temporary work outside of the boundary of the Site is not intended to be the basis for the issuance of a NFA or a COC, although the scope of construction is covered by this RADWP.

2.0 SITE DESCRIPTION AND HISTORY

2.1 SITE DESCRIPTION

Parcel B22 includes an area of approximately 131 acres of the Tradepoint Atlantic property as shown on **Figure 1**. Sub-Parcel B22-2 consists of approximately 45.0 acres intended for occupancy comprising the northern sections of Parcel B21 and Parcel B22. The development will include construction of a logistics center totaling approximately 700,000 square feet, as well as guard houses, extensive paving, and utility installations (**Figure 2** and **Figure 3**). Narrow areas within the LOD will be utilized to place fill material to tie into the surrounding grade outside of the area designated as Sub-Parcel B22-2 (as shown on the attached development plan drawings). The Site is currently zoned Manufacturing Heavy-Industrial Major (MH-IM), and is not occupied. There is no groundwater use on-site or within the surrounding Tradepoint Atlantic property.

Sub-Parcel B22-2 is at an elevation of approximately 8 to 12 feet above mean sea level (amsl) across most of the Site area and is generally flat. According to Figure B-2 of the Stormwater Pollution Prevention Plan (SWPPP) Revision 8 dated April 30, 2020, stormwater from Sub-Parcel B22-2 is directed toward the Tin Mill Canal (TMC) to the north and west. Water in the TMC feeds into the Humphrey Creek Wastewater Treatment Plant (HCWWTP) located distantly to the west, where it is treated prior to discharge into Bear Creek through the National Pollution Discharge Elimination System (NPDES) Outfall 014.

2.2 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 the facility ceased in fall 2012.

The proposed Sub-Parcel B22-2 development project includes the northern portion of Parcel B21 and Parcel B22. Several iron and steel work processes were completed within the boundary of Parcel B21, which was historically occupied in part by the Continuous Cold Tin Mill, and Parcel B22, which was historically occupied in part by the Continuous Sheet Mill. Both of these Finishing Mills process buildings extended onto Sub-Parcel B22-2. The former facilities and processes in the Finishing Mills Area generally included hot and cold milling and various plating operations including chrome, tin, and zinc alloys. Parcel B22 also included the Palm Oil Recovery, Inc. (PORI) facilities to the north of Sub-Parcel B22-2. More information regarding the specific historical activities conducted at the Site can be found in the Phase II Investigation Work Plans for Parcel B21 (Revision 1 dated June 28, 2018) and Parcel B22 (Revision 1 dated June 2, 2016).

3.0 ENVIRONMENTAL SITE ASSESSMENT RESULTS

3.1 PHASE I ENVIRONMENTAL SITE ASSESSMENT RESULTS

A Phase I ESA was completed by Weaver Boos Consultants for the entire Sparrows Point property on May 19, 2014. Weaver Boos completed site visits of Sparrows Point from February 19 through 21, 2014, for the purpose of characterizing current conditions at the former steel plant. The Phase I ESA identified particular features across the Tradepoint Atlantic property which presented potential risks to the environment. These Recognized Environmental Conditions (RECs) included buildings and process areas where releases of hazardous substances and/or petroleum products potentially may have occurred. The Phase I ESA also relied upon findings identified during a previous visual site inspection (VSI) conducted as part of the Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) prepared by A.T. Kearney, Inc. dated August 1993, for the purpose of identifying Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) on the property. This 1991 VSI is regularly cited in the Description of Current Conditions (DCC) Report prepared by Rust Environment and Infrastructure, dated January 1998 (included with Weaver Boos' Phase I ESA).

Weaver Boos' distinction of a REC or Non-REC was based upon the findings of the DCC Report (which was prepared when the features remained on-site in 1998) or on observations of the general area during their site visit. Weaver Boos made the determination to identify a feature as a REC based on historical information, observations during the site visit, and prior knowledge and experience.

Halogen Lines Trenches/Sumps (undesignated REC, Finding 43, also listed as SWMU 88):
The Halogen Lines were located in the northwestern corner of the Finishing Mills Area, within the former Tin Mill. The trenches/sumps were designed to transport passivation wastewater and spent chemical solutions to the TMC discharge point. Separate trench and sump systems collected different types of discharges. Chromium-bearing wastes were sent to the Chromium High Density Sludge (HDS) Plant, and oily wastewater and rinse water were discharged to the TMC.

Cold Sheet Mill Piping (REC 1J, Finding 23, also listed as SWMU 58):
The piping within the Sheet Mill transported process wastewater to the TMC discharge piping. Wastewater was transferred to the PORI Area (SWMUs 71 to 73). The system consisted primarily of concrete trenches with some brick sewers, and some open/box trenches. As the piping system was present throughout the process building, target soil borings were proposed along the main sewer lines (and connections between lines) leading from the Sheet Mill area. The targeted sewer lines clearly tie into the former PORI facilities.

Tandem Mill Trench System (REC 1K, Finding 24, also listed as SWMU 59):
The trench system within the Tandem Mill transported oily process wastewater to the TMC discharge piping. Wastewater was transferred to the PORI Area (SWMUs 71 to 73). The system consisted primarily of concrete trenches with some brick sewers. As the piping system was present throughout the process building, target soil borings were proposed along the main sewer lines (and connections between lines) leading from the Tandem Mill area. The targeted sewer lines clearly tie into the former PORI facilities.

PORI Oil/Water Separator (REC 1O, Finding 36, also listed as SWMU 71):
The PORI Area was located in the northern section of the Finishing Mills Area and the northern portion of Parcel B22. The oil/water separator received waste oil and water from the cold rolling operations across the facility. Including external sources, the unit received and processed nearly 1 million gallons of waste oil per month. The PORI operations adhered to strict requirements for inflow oil, because the operation needed to meet NPDES discharge criteria and the processed waste oil needed to meet specifications for resale. There were no known or reported releases from the oil/water separator.

PORI Holding Tank (REC 1P, Finding 37, also listed as SWMU 72):
After passing through the oil/water separator, the recovered oil was transferred to the PORI holding tanks for storage. There were no known or reported releases from the holding tanks.

PORI Lagoon (REC 1Q, Finding 38, also listed as SWMU 73):
After passing through the oil/water separator, the wastewater was then piped to the lagoon. Within the lagoon, additional waste oil was skimmed and transferred back to the oil/water separator. Water from the lagoon was discharged to the TMC through a permitted outfall.

Spent Pickle Liquor Sump/Trench System (REC 1U, Finding 48, also listed as SWMU 198):
The sump and trench system associated with the liquor tanks is located in the north-central part of the Finishing Mills Area. The unit was associated with piping designed to transport spent pickle solution from the Sheet and Tin Mills to the pickle liquor tanks (AOC W). Spent pickle liquor from the tanks was transported to the discharge location by additional piping.

3.2 INVESTIGATION RESULTS – SUB-PARCEL B22-2

Phase II Investigations specific to soil and groundwater conditions were performed for the property area including Sub-Parcel B22-2 in accordance with the requirements outlined in the ACO as further described in the following agency-approved Phase II Investigation Work Plans:

- Area B: Parcel B21 (Revision 1) dated June 28, 2018
- Area B: Parcel B22 (Revision 1) dated June 2, 2016
- Finishing Mills Groundwater Investigation (Revision 1) dated July 7, 2016

All soil samples (Parcel B21 and Parcel B22 Phase II Investigations) and groundwater samples (Finishing Mills Groundwater Phase II Investigation) were collected and analyzed in accordance with agency-approved protocols during the Phase II Investigations, the specific details of which can be reviewed in each agency-approved Work Plan. Each Phase II Investigation was developed to target specific features which represented a potential release of hazardous substances and/or petroleum products to the environment, including RECs, SWMUs, and AOCs, as applicable, as well as numerous other targets identified from former operations that would have the potential for environmental contamination. Samples were also collected at site-wide locations to ensure full coverage of each investigation area. The full analytical results and conclusions of each investigation have been presented to the agencies in the following Phase II Investigation Reports:

- Area B: Parcel B21 (Revision 0) dated January 14, 2020
- Area B: Parcel B22 (Revision 1) dated August 8, 2019 and supplemented by a Comment Response Letter dated April 7, 2020
- Finishing Mills Groundwater Investigation (Revision 0) dated November 30, 2016

This RADWP summarizes the relevant soil and groundwater findings from these Phase II Investigations with respect to the proposed development of Sub-Parcel B22-2.

3.2.1 Phase II Soil Investigation Findings

Based on the scope of development, 165 soil samples collected from 75 soil borings during the preceding Parcel B21 and Parcel B22 Phase II Investigations were included in this evaluation of Sub-Parcel B22-2. The Phase II soil boring locations are shown on **Figure 5**, and the samples obtained from these borings provided relevant analytical data for discussion of on-site conditions. Note that several of the soil borings are located outside Sub-Parcel B22-2; however, data from these locations have been included in this evaluation because they are very close to the site boundary and LOD to characterize soil on the Site.

Soil samples collected during the Phase II Investigation were analyzed for the USEPA Target Compound List (TCL) semi-volatile organic compounds (SVOCs), TCL volatile organic compounds (VOCs), total petroleum hydrocarbon (TPH) diesel range organics (DRO) and gasoline range organics (GRO), Oil & Grease, USEPA Target Analyte List (TAL) metals, hexavalent chromium, and/or cyanide based on the parcel-specific sampling plans for Parcels B21 and B22. Shallow soil samples (0 to 1 foot bgs) were additionally analyzed for polychlorinated biphenyls (PCBs). During the implementation of the Parcel B22 Phase II Investigation Work Plan, TPH-DRO/GRO analysis was required at every location, but Oil & Grease analysis was not required or completed. Oil & Grease samples were collected only on Parcel B21. The laboratory Certificates of Analysis (including Chains of Custody) and relevant Data Validation Reports (30+% validated soil data) are included as electronic attachments. The Data Validation Reports contain qualifier keys for the flags assigned to individual results in the attached summary tables.

Soil sample results were screened against the Project Action Limits (PALs) established in the property-wide Quality Assurance Project Plan (QAPP) dated April 5, 2016, or based on other direct agency guidance (e.g., TPH/Oil & Grease). **Table 1** and **Table 2** provide summaries of the detected organic compounds and inorganics in the soil samples collected from the Phase II Investigation soil borings relevant for this evaluation. **Figure SB1** through **Figure SB4** present the soil sample results that exceeded the PALs among these soil borings. The PALs for relevant polynuclear aromatic hydrocarbons (PAHs) have been adjusted upward based on revised toxicity data published in the USEPA Regional Screening Level (RSL) Composite Worker Soil Table. PAL exceedances among the Parcel B21 and Parcel B22 Phase II Investigation soil samples relevant for this development consisted of five SVOCs (benz[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, dibenz[a,h]anthracene, and naphthalene), five PCB groups (Aroclor 1242, Aroclor 1248, Aroclor 1254, Aroclor 1260, and total PCBs), TPH-DRO, Oil & Grease, and six inorganics (arsenic, hexavalent chromium, lead, manganese, thallium, and vanadium). Evidence of non-aqueous phase liquid (NAPL) was also observed at several soil boring locations relevant for this evaluation. Contingency measures to address the potential presence of NAPL which could be encountered during construction are addressed in subsequent sections of this RADWP.

3.2.2 **Phase II Groundwater Investigation Findings**

Groundwater conditions were investigated in accordance with the Finishing Mills Groundwater Investigation Work Plan. Shallow groundwater samples were obtained from five temporary groundwater sample collection points (piezometers) and five permanent monitoring wells within, or in close proximity to, Sub-Parcel B22-2. The 10 shallow groundwater points which provided relevant analytical data for the proposed development project are shown on **Figure 6**. There is no direct exposure risk for future Composite Workers at the Site because there is no use of groundwater on the Tradepoint Atlantic property; however, groundwater may be encountered in the sub-parcel during some construction tasks. If groundwater is encountered during development, it will be managed to prevent exposures in accordance with the dewatering requirements outlined in Section 5.2.

The groundwater samples collected during the Finishing Mills Groundwater Investigation were analyzed for TCL-VOCs, TCL-SVOCs, TAL-dissolved metals, TPH-DRO/GRO, hexavalent chromium, and total cyanide. The permanent wells (TM09-PZM007, TM11-PZM007, TM13-PZM007, TM15-PZM007, and TM15-PZM011) were also analyzed for TAL-total metals, as well as PCBs due to their proximity to the TMC. Groundwater samples submitted for analysis of dissolved metals were filtered in the field with an in-line 0.45 micron filter. Oil & Grease analysis was not required or completed during the Finishing Mills Groundwater Phase II Investigation. The laboratory Certificates of Analysis (including Chains of Custody) and relevant Data Validation Reports (50+% validated groundwater data) are included as electronic attachments. The Data Validation Reports contain qualifier keys for the flags assigned to individual results in the attached summary tables.

The Phase II Investigation shallow groundwater results were screened against the PALs established in the property-wide QAPP dated April 5, 2016, or based on other direct agency guidance (e.g., TPH). **Table 3** and **Table 4** provide summaries of the detected organic compounds and inorganics in the groundwater samples submitted for laboratory analysis, and **Figure GW1** presents the groundwater results that exceeded the PALs. Similar to the evaluation of soil data, the PALs for relevant PAHs have been adjusted upward based on revised toxicity data published in the USEPA RSL Resident Tapwater Table. PAL exceedances among the Phase II Investigation shallow groundwater samples collected in the vicinity of the proposed development project consisted of one VOC (chloroform), five SVOCs (1,1-biphenyl, 1,4-dioxane, benz[a]anthracene, naphthalene, and pentachlorophenol), four PCB groups (dichlorobiphenyl, tetrachlorobiphenyl, trichlorobiphenyl, and total PCBs), TPH-DRO, TPH-GRO, and six total/dissolved metals (arsenic, cobalt, iron, manganese, thallium, and vanadium). For simplicity, the inorganic PAL exceedances shown on **Figure GW1** do not include duplicate exceedances of total/dissolved metals. If both total and dissolved concentrations exceeded the PAL, the value for total metals is displayed.

Each groundwater collection point was also inspected for evidence of NAPL using an oil-water interface probe prior to sampling. None of the groundwater sample collection points from the Finishing Mills Groundwater Investigation relevant for the proposed Sub-Parcel B22-2 development project showed evidence of NAPL during these checks.

3.2.3 PORI Lagoon Characterization Investigation

ARM prepared a comprehensive PORI Lagoon Characterization Report dated September 1, 2020, which is included as an electronic attachment to this RADWP. The PORI Lagoon Characterization Report summarizes several rounds of soil and groundwater investigation activities completed at the PORI Lagoon. A limited scope of additional groundwater investigation work was recently completed in the vicinity of the PORI Lagoon. The findings from the supplemental investigation are provided in the PORI Lagoon Corrective Measures Study (CMS) Report (Revision 1) dated February 18, 2021 which is also included as an electronic attachment to this RADWP.

Following the completion of Phase II Investigation activities on Parcel B22 in June 2016, elevated concentrations of naphthalene and benzo[a]pyrene were identified in the subsurface soil samples collected from soil boring B22-119-SB, which was installed at a location adjacent to the north side of the PORI Lagoon. The highest concentrations of these SVOCs were in samples collected in the interval from 9 to 10 feet bgs. At 10 feet bgs, naphthalene was detected at a concentration of 2,040 mg/kg and benzo[a]pyrene was detected at a concentration of 84.9 mg/kg. A black and viscous NAPL was observed in soil boring B22-119-SB within the soil core from 9 to 10 feet bgs, corresponding to the elevated analytical results. The PORI Lagoon had also been targeted by soil borings B22-120-SB, B22-121-SB, and B22-174-SB, which did not exhibit elevated naphthalene or benzo[a]pyrene detections. It should be noted that soil boring B22-119-SB was in the suspected downgradient direction (north) from the lagoon.

Following review of the analytical results from the Phase II Investigation, additional data collection was warranted. ARM proceeded with the completion of 12 additional soil borings, two test pits, and four groundwater piezometers in May and June 2018. As a result of NAPL accumulation in one piezometer (B22-119K-PZ), six supplemental NAPL screening piezometers were installed in October 2018 to delineate the extent of potentially mobile NAPL. Following the presentation of sample results within the PORI Lagoon Interim Submittal dated August 8, 2019, MDE requested additional groundwater sampling. A total of six supplemental groundwater samples were collected in the vicinity of the lagoon in May 2020 (including re-sampling B22-119-PZ). In June 2020, six supplemental test pits were completed in the bottom PORI Lagoon sediments to supplement the data collected in 2018. Analytical soil and groundwater samples were collected during the various phases of investigation and analyzed for VOCs, PAHs, TPH-DRO/GRO, and Oil & Grease.

The complete findings of the PORI Lagoon Characterization Investigation are described within the PORI Lagoon Characterization Report provided as an electronic attachment, but the significant findings are summarized below. Naphthalene and other PAHs were detected at elevated levels in the soil samples collected from B22-119-SB and the immediately surrounding borings B22-119E-SB and B22-119H-SB. NAPL was observed at B22-119-SB within the soil core from 9 to 10 feet bgs during the original Phase II Investigation in 2016 and from 7 to 10 feet bgs during the supplemental investigation in 2018. The test pit samples collected from the PORI Lagoon sediments contained elevated TPH-DRO and Oil & Grease at multiple locations within the lagoon footprint. Although the sediments in the PORI Lagoon are impacted with TPH-DRO and Oil & Grease, the concentrations of VOCs and PAHs in the test pit samples are low.

Soil boring B22-119-SB to the north of the PORI Lagoon was the only soil boring with significant NAPL contamination observed in the core. One other boring (B22-119S-SB) had a slight sheen observed in the soil. The piezometers installed at both of these locations did not accumulate NAPL; however, the most significant dissolved contamination in groundwater was observed at these two locations. B22-119-PZ exhibited the highest groundwater concentrations of numerous organic contaminants. It should be noted that B22-119K-PZ was not sampled due to the presence of NAPL, which was subsequently delineated. An unknown milky-colored product was observed at locations B22-119M-PZ and B22-119Q-PZ during groundwater purging but did not appear to be the same type of NAPL that was identified at B22-119K-PZ. The unknown product appears to be relatively benign based on the groundwater results obtained at these two locations.

Table 5, **Table 6**, and **Table 7** provide summaries of the detected organic compounds in the soil boring samples, test pit soil samples, and groundwater samples, respectively, collected from the vicinity of the PORI Lagoon. **Figure 7a** through **Figure 7e** show the analytical results that exceeded the soil and groundwater PALs, as well as showing the results of the NAPL delineation surrounding B22-119K-PZ. Several organic compounds exceeded the PALs in soil or groundwater in the vicinity of the PORI Lagoon which were not documented among the Phase II Investigation samples collected elsewhere on Sub-Parcel B22-2. These included a soil PAL exceedance of indeno[1,2,3-c,d]pyrene, and groundwater PAL exceedances of benzene, 2,4-dimethylphenol, 2-methylnaphthalene, 2-methylphenol, 3&4-methylphenol, benzo[a]pyrene, benzo[b]fluoranthene, benzo[k]fluoranthene, chrysene, dibenz[a,h]anthracene, indeno[1,2,3-c,d]pyrene, and Oil & Grease.

The most appropriate remedy for the PORI Lagoon was to remove the contaminated sediments via excavation and then cap the remaining sediments in place using a low-permeability cap to provide a protective barrier for future exposures. Excavation of the contaminated sediments has been completed and was detailed in the PORI Lagoon Excavation Completion Report dated January 6, 2021, which is included as an electronic attachment to this RADWP. This remedy was contingent on no building or occupied structure being built above the PORI Lagoon area, which is consistent with this RADWP. The migration of NAPL appears to be limited, and a NAPL recovery well shall be installed at the former location of B22-119K-PZ. Based on the limited accumulation of NAPL, a passive recovery method such as an absorbent down-well sock will be used.

3.2.4 Locations of Potential Concern

Vapor Intrusion (VI) risks/hazards were evaluated for each well and piezometer sampled in the vicinity of the Sub-Parcel B22-2 development project during the preceding Finishing Mills Groundwater Phase II Investigation and PORI Lagoon Characterization Investigation. The results of the VI screening evaluation are summarized in **Table 8**. Total cyanide had previously been identified as a potential VI concern within the Finishing Mills Groundwater Phase II Investigation Report, but the screening level for cyanide has since been adjusted upward by the USEPA (to 840 ug/L), eliminating this concern. The results of this evaluation have indicated elevated VI risks at the location of piezometer B22-119-PZ, which was sampled in May 2018 and again more recently in May 2020. In 2018, the naphthalene and benzene detections of 2,550 µg/L and 859 µg/L, respectively, at B22-119-PZ exceeded the corresponding Target Cancer Risk (TCR) Vapor Intrusion Screening Levels (VISLs) of 200 µg/L and 69 µg/L. Similarly, in May 2020 the naphthalene and benzene detections of 886 µg/L and 835 µg/L, respectively.

The groundwater impacts at B22-119-PZ have been adequately delineated, and the elevated VI risk does not appear to be widespread beyond this isolated location. Further, B22-119-PZ is located to the north of the PORI Lagoon and outside of the footprint of the proposed logistics center building, which is planned for construction to the south of the PORI Lagoon. It should be noted that a groundwater sample was not collected from B22-119K-PZ (also located on the north side of the lagoon) due to the presence of NAPL at this location, but groundwater samples were collected to the north and south of B22-119K-PZ (at locations B22-119N-PZ and B22-119M-PZ, respectively) and neither location exhibited an elevated VI risk.

A limited scope of additional groundwater investigation work was recently completed in the vicinity of the PORI Lagoon, primarily in the downgradient direction on the north side of the lagoon toward the TMC. One additional groundwater sample was collected to the south of the lagoon in the upgradient direction. The findings from the supplemental investigation are provided in the PORI Lagoon CMS Report (included as an electronic attachment) and the VI risks/hazards have been evaluated for the new analytical sample data. No additional VI concerns were identified.

Other locations of potential concern which are subject to special requirements could include elevated lead, PCBs, TPH/Oil & Grease, or NAPL. The soil data relevant for Sub-Parcel B22-2 were evaluated to determine the presence of any such locations of potential concern including: lead concentrations above 10,000 mg/kg, PCB concentrations above 50 mg/kg, TPH/Oil & Grease concentrations above 6,200 mg/kg, and/or evidence of NAPL. There were no observed lead concentrations exceeding 10,000 mg/kg.

During the Parcel B22 Phase II Investigation, B22-028-SB exhibited an elevated concentration of total PCBs above the mandatory excavation criterion of 50 mg/kg in soil sample B22-028-SB-1 at 74.4 mg/kg. A delineation grid was established surrounding the elevated detection location and supplemental samples were collected for PCB analysis in August 2016. Following the receipt of analytical data from the delineation investigation, three excavation areas were proposed to address elevated PCB impacts, designated as the main, east, and south excavations. The main excavation area was located to the west of the original location of B22-028-SB. The south excavation is located on the Parcel B22, Phase 1 property area that was previously developed and is not relevant for this evaluation of Sub-Parcel B22-2. The three excavations were completed in September 2016, and confirmation samples were collected from the edges of the excavations (unless bounded by concrete) to confirm that the material exceeding 50 mg/kg of PCBs was removed. Concrete materials remaining in place at the edges of the PCB excavations will be capped during this Sub-Parcel B22-2 development project. The details of the response activities are provided in the Delineation and Excavation of PCB and DRO Impacted Soil Completion Report dated December 22, 2016, and supplemented by a Comment Response Letter dated February 21, 2017. Both the Completion Report and associated Comment Response Letter are included as electronic attachments. The delineation and post-excavation confirmation sample PCB results are presented in **Table 9**, and the delineation layout and final excavation boundaries are shown on **Figure 8**. The analytical results associated with the B22-028-SB response activities have been incorporated into the risk assessment (as applicable) presented in Section 3.3.

Additionally, several soil borings had visual observations of NAPL and/or elevated concentrations of TPH/Oil & Grease. These included B21-060-SB, B22-033-SB, B22-034-SB, B22-067-SB, B22-071-SB, B22-106-SB, B22-111-SB, B22-116-SB, B22-119-SB (at the PORI Lagoon), B22-144-SB, B22-148-SB, B22-152-SB, and B22-153-SB. Temporary NAPL screening piezometers were installed at B22-033-SB, B22-034-SB, B22-067-SB, B22-071-SB (investigated by the co-located installation of Finishing Mills groundwater piezometer FM-005-PZS), B22-106-SB, B22-111-SB, B22-119-SB (extensive work was conducted under the PORI Lagoon Characterization Investigation discussed in Section 3.2.3), and B22-153-SB to investigate the potential presence and mobility of NAPL in groundwater at these locations. The soil boring logs and piezometer construction logs from these locations identified with potential NAPL impacts are included within **Appendix B**. NAPL was not detected in the screening piezometers installed at any of the eight listed locations. Borings B22-148-SB and B22-152-SB have previously been addressed via remedial excavations to remove petroleum-impacted material as reported in the Delineation and Excavation of PCB and DRO Impacted Soil Completion Report dated December 22, 2016 (and supplemental Comment Response Letter dated February 21, 2017), included as an electronic attachment. NAPL screening piezometers were not warranted at B22-116-SB or B22-144-SB due to only minor observations of potential NAPL contamination being encountered (limited to the presence of a sheen), as reported in the Parcel B22 Phase II Investigation Report Comment Response Letter dated April 7, 2020. A NAPL screening piezometer was not warranted at B21-060-PZ due to the lack of physical evidence of NAPL in the soil core and lack of subsurface impacts, as reported in the Parcel B21 Phase II Investigation Report dated January 14, 2020.

Figure 9 provides a summary of the soil borings and groundwater points that were identified by this screening evaluation as locations of potential concern at the Site. The remedial excavation area from the preceding response activities at the PORI Lagoon is also shown on **Figure 9**. The PORI Lagoon is considered to be an area of potential concern. Potentially mobile NAPL was delineated in piezometer B22-119K-PZ on the north side of the lagoon. None of the locations of potential concern are positioned below the footprint of the proposed logistics center building. Sediments removed from the PORI Lagoon were analyzed via the Toxicity Characteristic Leaching Procedure (TCLP) to determine if the material could be disposed of within the on-site Greys Landfill. The material was below the TCLP threshold concentrations and was determined to be non-hazardous. Approximately 800 cubic yards of sediment was removed from the lagoon and transported to Greys Landfill for final disposal.

3.3 HUMAN HEALTH SCREENING LEVEL RISK ASSESSMENT

3.3.1 Analysis Process

A human health Screening Level Risk Assessment (SLRA) has been completed based on the analytical data obtained from the characterization of surface and subsurface soils. This includes the soil data obtained during the preceding Parcel B21 and Parcel B22 Phase II Investigations and PORI Lagoon Characterization Investigation. The supplemental data collected from the B22-028-SB PCB delineation and excavation (including confirmation sample results), referenced above, are also included in the SLRA. Remedial excavations have been completed at B22-028-SB, B22-148-SB, and B22-152-SB as discussed in Section 3.2.4; therefore, the analytical data from these locations have been excluded from the SLRA as appropriate based on the depths of the completed excavations. The samples that were excluded from the SLRA due to excavation are highlighted on the detection summary tables (**Table 1**, **Table 2**, and **Table 9**) and the PAL exceedance figures (**Figure SB1** through **Figure SB4**).

It should be noted that, in accordance with the approved Parcel B22 Logistics Center Grading Plan, processed slag aggregate sourced from the Tradepoint Atlantic property has already been placed on portions of the Site and will be used as the primary fill material and pavement subbase for this project; therefore, regardless of the findings of the Composite Worker baseline SLRA, Sub-Parcel B22-2 will be subject to surface engineering controls (i.e., capping) unless separate approvals are received from the MDE following appropriate laboratory testing of the slag aggregate. The SLRA was conducted to further evaluate the existing soil conditions in support of the design of any additional necessary response measures.

The SLRA included the following evaluation process:

Identification of Exposure Units (EUs): The Composite Worker SLRA was evaluated using a single site-wide EU with an area of 45.0 acres. The Construction Worker SLRA was evaluated using the same EU. The same soil datasets were used for the evaluation of the Composite and Construction Worker EUs.

Identification of Constituents of Potential Concern (COPCs): For the project-specific SLRA, compounds that were present at concentrations at or above the USEPA RSLs set at a target cancer risk of 1E-6 or target non-cancer Hazard Quotient (HQ) of 0.1 were identified as COPCs to be included in the SLRA. A COPC screening analysis is provided in **Table 10** to identify all compounds above the relevant screening levels.

All aroclor mixtures (e.g., Aroclor 1242, Aroclor 1260) are taken into account for the reported concentrations of total PCBs. The total PCBs concentrations are used to evaluate the carcinogenic risk associated with PCBs. Aroclor 1254, which is included in the total PCBs summation for the carcinogenic risk estimate, is also evaluated separately for systemic toxicity (i.e., non-cancer hazard).

If the detection frequency of an analyte is less than 5% in a dataset with a minimum of 20 samples, the COPC can be eliminated from the risk assessment assuming the detections are not extremely high (based on agency discretion). A single detection that is extremely high could require delineation rather than elimination. The results for trichloroethene were eliminated from the risk assessment because this compound was infrequently detected in the dataset for Sub-Parcel B22-2. Trichloroethene (3.8%) was only detected in six samples analyzed for this compound out of a total of 159 samples with a maximum concentration of 4.3 mg/kg detected in B22-112-SB-4.

Exposure Point Concentrations (EPCs): The COPC soil datasets for the site-wide EU were divided into surface (0 to 1 foot), subsurface (>1 foot), and pooled depths for estimation of potential EPCs. Thus, there are three soil datasets associated with the site-wide EU. A statistical analysis was performed for each COPC dataset using the ProUCL software (version 5.0) developed by the USEPA to determine representative reasonable maximum exposure (RME) values for the EPC for each constituent. The RME value is typically the 95% Upper Confidence Limit (UCL) of the mean. For lead, the arithmetic mean for each depth was calculated for comparison to the Adult Lead Model (ALM)-based values, and any individual results exceeding 10,000 mg/kg would be delineated (if applicable). For PCBs, all results equaling or exceeding 50 mg/kg were previously delineated and excavated as reported above.

Risk Ratios: The surface soil EPCs, subsurface soil EPCs, and pooled soil EPCs were compared to the USEPA RSLs for the Composite Worker and to site-specific Soil Screening Levels (SSLs) for the Construction Worker based on equations derived in the USEPA Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites (OSWER 9355.4-24, December 2002). Risk ratios were calculated with a cancer risk of 1E-6 and a non-cancer HQ of 1. The risk ratios for the carcinogens were summed to develop a screening level estimate of the baseline cumulative cancer risk. The risk ratios for the non-carcinogens were segregated and summed by target organ to develop a screening level estimate of the baseline cumulative non-cancer Hazard Index (HI).

For the Construction Worker, site-specific risk-based evaluations were completed for a range of potential exposure frequencies to determine the maximum allowable exposure frequency for the site-wide EU that would result in risk ratios equivalent to a cumulative cancer risk of 1E-5 or HI of 1 for the individual target organs. This analysis indicated that the allowable exposure frequency before additional worker protections or more detailed job safety evaluations might be needed is 25 days.

There is no potential for direct human exposure to groundwater for a Composite Worker since groundwater is not used on the Tradepoint Atlantic property (and is not proposed to be utilized). In the event that construction/excavation leads to a potential Construction Worker exposure to groundwater during development, health and safety plans and management procedures shall be followed to limit exposure risk.

Assessment of Lead: For lead, the arithmetic mean concentrations for surface soils, subsurface soils, and pooled soils for the site-wide EU were compared to the applicable RSL (800 mg/kg) as an initial screening. If the mean concentrations for the EU were below the applicable RSL, the EU was identified as requiring no further action for lead. If a mean concentration exceeded the RSL, the mean values were compared to calculated ALM values (ALM Version dated 6/21/2009 updated with the 5/17/2017 OLEM Directive) with inputs of 1.8 for the geometric standard deviation and a blood baseline lead level of 0.6 ug/dL. The ALM calculation generates a soil lead concentration of 2,518 mg/kg, which is the most conservative (i.e., lowest) concentration which would yield a probability of 5% of a blood lead concentration of 10 ug/dL. If the arithmetic mean concentrations for the EU were below 2,518 mg/kg, the EU was identified as requiring no further action for lead.

The lead averages and ALM screening levels are presented for surface, subsurface, and pooled soils in **Table 11**.

Assessment of TPH/Oil & Grease: EPCs were not calculated for TPH/Oil & Grease. Instead, the individual results were compared to the PAL set to a HQ of 1 (6,200 mg/kg). Two soil samples in Parcel B22 exceeded the PAL for TPH-DRO: B22-148-SB-6 (6,670 mg/kg) and B22-152-SB-6 (6,610 mg/kg). The impacts at both locations have previously been excavated. One soil sample in Parcel B21 exceeded the PAL for Oil & Grease: B21-060-SB-1 (12,400 J mg/kg). As noted previously, the soil samples collected in Parcel B22 were not analyzed for Oil & Grease per the Work Plan requirements. During the PORI Lagoon Characterization Investigation, several additional exceedances of the TPH/Oil & Grease PAL were identified within and immediately surrounding the lagoon as shown on **Figure 7a** and **Figure 7b**. Potential evidence of NAPL was also observed at several soil boring locations in Parcel B22. These findings are further discussed in Section 3.2.3 and Section 3.2.4. The soil borings with physical evidence of NAPL or elevated TPH/Oil & Grease concentrations are plotted with respect to the proposed development plan (including utilities) on **Figure 9**. The PORI Lagoon is also highlighted on the figure. Contingency measures to address the potential presence of NAPL which could be encountered during construction are addressed in subsequent sections of this RADWP.

Risk Characterization Approach: Generally, if the baseline risk ratio for each non-carcinogenic COPC or cumulative target organ does not exceed 1 (with the exception of lead), and the sum of the risk ratios for the carcinogenic COPCs does not exceed a cumulative cancer risk of 1E-5, then a no further action determination will be recommended. If the baseline estimate of cumulative cancer risk exceeds 1E-5 but is less than or equal to 1E-4, then capping of the EU will be considered to be an acceptable remedy for the Composite Worker. For the Construction Worker, cumulative cancer risks exceeding 1E-5, but less than or equal to 1E-4, will be mitigated via site-specific health and safety requirements. The efficacy of capping for elevated non-cancer hazard will be evaluated in terms of the magnitude of exceedance and other factors such as bioavailability.

It should be noted that processed slag aggregate sourced from the Tradepoint Atlantic property will be used as the primary fill material and pavement subbase for this project; therefore, regardless of the findings of the Composite Worker baseline assessment, Sub-Parcel B22-2 will be subject to surface engineering controls (i.e., capping) unless separate approvals are received from the MDE following appropriate laboratory testing of the slag aggregate material. The goal of the SLRA is therefore to determine whether additional response actions beyond capping may be needed due to current conditions at the Site. Processed slag aggregate has already been placed in the vicinity of the proposed logistics center building in accordance with the approved Parcel B22 Logistics Center Grading Plan (Revision 0 dated March 31, 2020).

The USEPA's acceptable risk range is between 1E-6 and 1E-4. If the sum of the risk ratios for carcinogens exceeds a cumulative cancer risk of 1E-4, further analysis of site conditions will be required including the consideration of toxicity reduction in any proposal for a remedy. The magnitude of any non-carcinogen HI exceedances and bioavailability of the COPC will also dictate further analysis of site conditions including consideration of toxicity reduction in any proposal for a remedy. For lead, if the ALM results indicate that the mean concentrations would present a 5% to 10% probability of a blood concentration of 10 ug/dL for the EU, then capping of the EU would be an acceptable presumptive remedy. The mean soil lead concentrations corresponding to ALM probabilities of 5% and 10% are 2,518 mg/kg and 3,216 mg/kg, respectively. If the ALM indicates that the mean concentrations would present a >10% probability of a blood concentration of 10 ug/dL for the EU, further analysis of site conditions including toxicity reduction will be completed such that the probability would be reduced to less than 10% after toxicity reduction, but before capping.

3.3.2 Sub-Parcel B22-2 SLRA Results and Risk Characterization

Soil data were divided into three datasets (surface, subsurface, and pooled) for Sub-Parcel B22-2 to evaluate potential exposure scenarios. Due to the grading activities including cut and fill which will be implemented during development at the Site, each of these potential exposure scenarios is relevant for both the Composite and Construction Worker.

EPCs were calculated for each soil dataset (i.e., surface, subsurface, and pooled soils) in the site-wide EU. ProUCL output tables (with computed UCLs) derived from the data for each COPC in soils are provided as electronic attachments, with computations presented and EPCs calculated for COPCs within each of the datasets. The ProUCL input tables are also included as electronic attachments. The results were evaluated to identify any samples that may require additional assessment or special management based on the risk characterization approach. The calculated EPCs for the surface, subsurface, and pooled exposure scenarios are provided in **Table 12**.

As indicated above, the EPCs for lead are the average (i.e., arithmetic mean) values for each dataset. A lead evaluation spreadsheet, providing the computations to determine lead averages for each dataset, is also included as an electronic attachment. The average lead concentrations are presented for each dataset in **Table 11**, which indicates that neither surface, subsurface, nor pooled soils exceeded an average lead value of 800 mg/kg. The screening criterion for lead was set at an arithmetic mean of 800 mg/kg based on the RSL, with a secondary limit of 2,518 mg/kg based on the May 2017 updated ALM developed by the USEPA (corresponding to a 5% probability of a blood lead level of 10 ug/dL). There were no samples with lead detections above 10,000 mg/kg.

One soil sample (B22-028-SB-1) exceeded the PCB excavation criterion of 50 mg/kg. The impacts at this location were subsequently delineated and excavated. Confirmation samples were collected from the edges of the excavations (unless bounded by concrete) to confirm that the material exceeding 50 mg/kg of total PCBs was removed. Concrete materials remaining in place at the edges of the PCB excavations will be capped during this Sub-Parcel B22-2 development project. The details of the response activities are provided in the Delineation and Excavation of PCB and DRO Impacted Soil Completion Report dated December 22, 2016 (and supplemental Comment Response Letter dated February 21, 2017). The supplemental data collected during the PCB delineation and subsequent confirmation sampling are included in this project-specific SLRA. Samples that were excavated have been excluded from the SLRA as appropriate based on the depths of the completed excavations.

It should be noted the SLRA was completed prior to the implementation of the remedial excavation at the PORI Lagoon (completed in December 2020). Therefore, the SLRA likely overestimates the potential risks to workers, as samples collected from within the PORI Lagoon were included in this risk evaluation. The PORI Lagoon's impacted material contained the highest PAH concentrations recorded on the Site. Impacted material from within the PORI Lagoon was removed from the Site and disposed of in Greys Landfill prior to the start of construction. This remedial excavation likely significantly reduced the risk of exposure to impacted materials in the lagoon for workers at the site. Material removal within the PORI Lagoon was detailed in the PORI Lagoon Excavation Completion Report (included as an electronic attachment).

Composite Worker Assessment:

Risk ratios for the estimates of potential EPCs for the Composite Worker baseline scenario prior to the placement of slag aggregate at the Site are shown in **Table 13** (surface), **Table 14** (subsurface), and **Table 15** (pooled). The results are summarized as follows:

Worker Scenario	Exposure Unit	Medium	Hazard Index (>1)	Total Cancer Risk
Composite Worker	Site-Wide EU (45.0 acres)	Surface Soil	none	1E-5
		Subsurface Soil	Dermal = 2	2E-5
		Pooled Soil	none	2E-5

Based on the risk ratios for Sub-Parcel B22-2, environmental capping (100% of the Site) is an acceptable remedy to be protective of future Composite Workers for the surface, subsurface, and pooled exposure scenarios. Based on the surface soil results, the carcinogenic risk estimate was equal to the acceptable risk level of 1E-5 and none of the non-cancer HI values exceeded 1. However, the subsurface carcinogenic risk estimate (and pooled soil estimate) exceeded 1E-5, and the dermal system HI value exceeded 1. Given these exceedances and based on the proposed placement of slag aggregate at the Site, capping and institutional controls (to maintain the integrity of the cap) are suitable measures for the protection of the future Composite Worker. The proposed capping remedy will provide adequate protection from on-site media exceeding the acceptable risk thresholds. The capping remedy will additionally be protective of slag aggregate which will be used as the primary fill material and pavement subbase at the Site.

Construction Worker Assessment:

Intrusive activities which could result in potential Construction Worker exposures are expected to be limited primarily to utility installation tasks performed by specific work crews. Construction Worker risks were evaluated for several different exposure scenarios to determine the maximum exposure frequency for the site-wide EU that would result in risk ratios equivalent to a cumulative cancer risk of 1E-5 or HI of 1 for any individual target organ. Risk ratios for the Construction Worker scenario using the selected duration (25 days) are shown in **Table 16** (surface), **Table 17** (subsurface), and **Table 18** (pooled). The variables entered for calculation of the site-specific Construction Worker SSLs (EU area, input assumptions, and exposure frequency) are indicated as notes on the tables. The spreadsheet used for computation of the site-specific Construction Worker SSLs is included in **Appendix C**. The results are summarized as follows:

Worker Scenario	Exposure Unit	Medium	Hazard Index (>1)	Total Cancer Risk
Construction Worker	Site-Wide EU (45.0 acres) (25 exposure days)	Surface Soil	none	4E-7
		Subsurface Soil	none	2E-6
		Pooled Soil	none	1E-6

Using the selected exposure duration for the site-wide EU (25 days), the carcinogenic risks were all less than 1E-5, and none of the non-carcinogens caused a cumulative HI to exceed 1 for any target organ system. These findings are below the acceptable limits for no further action established by the agencies. This evaluation indicates that additional site-specific health and safety requirements (beyond standard Level D protection) would be required only if the allowable exposure duration were to be exceeded for an individual worker.

Certain activities at the Site have the potential to exceed the allowable duration, and Construction Worker risks will be mitigated via site-specific health and safety requirements. Upgraded Personal Protective Equipment (PPE) beyond standard Level D protection will be used for the entire scope of intrusive work covered by this RADWP as a protective measure to ensure that there are no unacceptable exposures for Construction Workers during project implementation. The Modified Level D PPE requirements which will be applied immediately and throughout this project, including specific PPE details, planning, tracking/supervision, enforcement, and documentation, are outlined in the PPE Standard Operational Procedure (SOP) provided as **Appendix D**.

Institutional controls will be required to be established for the protection of future Construction Workers in the event of any future long-term construction projects which could include intrusive activities. The anticipated institutional controls, including notification requirements, health and safety requirements, and materials management requirements, are specified in Section 5.4.

3.3.3 Evaluation of Comprehensive Environmental Response, Compensation, and Liability Act Criteria

Results from the SLRA indicate that a site-wide remedy of capping with institutional controls will be acceptable to mitigate potential current and future Composite Worker risks resulting from on-site soil conditions. Site-specific health and safety controls will be implemented to mitigate Construction Worker risks within the sub-parcel. This includes using modified Level D PPE. The modified Level D PPE requirements will be implemented throughout the project duration in accordance with the PPE SOP provided as **Appendix D**. Institutional controls will also be required to be established for the protection of future Construction Workers in the event of any future long-term construction projects which could include intrusive activities.

The proposed VCP capping remedy with institutional controls was evaluated for consistency with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Threshold Criteria and the Balancing Criteria. The Threshold Criteria assess the overall protection of human health and the environment, as well as achievement of media cleanup objectives and control of sources of releases at the Site. The Balancing Criteria assess long-term effectiveness and permanence; reduction of toxicity, mobility or volume; short-term effectiveness; implementability; cost effectiveness; and community and State acceptance.

Threshold Criteria:

Protect Human Health and the Environment: The assessment against this criterion evaluates how the remedy, as a whole, protects and maintains protection of human health and the environment. This criterion is satisfied when response actions are complete. The purpose of this remedy is to provide a protective barrier between human site users and impacted materials, and to protect the environment by preventing surface water from contacting potentially impacted materials in place. The capping and institutional control remedy would eliminate risk to current and future industrial workers by preventing exposure to on-site media and areas of the Site where processed slag aggregate has been placed. Groundwater does not present a direct human health hazard since there is no groundwater use on the property. Implementation of the proposed use restrictions will address the residual risk and will also protect future workers by eliminating or controlling potential exposure pathways, thus, reducing potential intake and contact of COPCs by human receptors.

Achieve Media Cleanup Objective: The assessment against this criterion describes how the remedy meets the cleanup objective, which is risk reduction, appropriate for the expected current and reasonably anticipated future land use. The objective is to protect current/future Composite Workers and Construction Workers from potential exposures to constituents present in slag aggregate and on-site media at levels that may result in risks of adverse health effects. Given the controlled access and use restrictions, the proposed remedy will attain soil and groundwater objectives. The activity use restrictions will eliminate current and future unacceptable exposures to both soil and groundwater.

Control the Source of Releases: In its RCRA Corrective Action proposed remedies, USEPA seeks to eliminate or reduce further releases of hazardous wastes or hazardous constituents that may pose a threat to human health and the environment. Controlling the sources of contamination relates to the ability of the proposed remedy to reduce or eliminate, to the maximum extent practicable, further releases. Sampling results did not indicate localized, discernible source areas associated with the soil and groundwater conditions observed at the Site, with the possible exception of NAPL at select soil boring locations including in the vicinity of the PORI Lagoon (as described in Section 3.2.3 and Section 3.2.4). The control measures included in the proposed remedy, such as Materials Management Plan requirements and groundwater use restrictions, provide a mechanism to control and reduce potential further releases of COPCs. This is achieved by eliminating the potential for groundwater use and requiring proper planning for intrusive activities.

Balancing Criteria:

Long-Term Reliability and Effectiveness: The assessment against this criterion evaluates the long-term effectiveness of the remedy in maintaining protection of human health and the environment after the response objectives have been met. The primary focus of this criterion is the extent and effectiveness of the controls that may be required to manage the risk posed by slag aggregate, treatment residuals, and/or untreated wastes. The proposed capping remedies have been proven to be effective in the long-term at similar sites with similar conditions. The capping remedy will permanently contain the slag aggregate and other potentially contaminated media in place. In order for the cap to effectively act as a barrier, regular inspections will be required to determine if erosion or cracks have formed that could expose workers to contaminated materials.

Institutional controls will be implemented to protect future Composite and Construction Workers against inadvertent contact with potentially impacted media. The anticipated institutional controls are specified in Section 5.4. The Tenant will be required to sign onto the Environmental Covenant with restriction in the NFA. The proposed remedy will maintain protection of human health and the environment over time by controlling exposures to the hazardous constituents potentially remaining in slag aggregate or existing on-site media. The long-term effectiveness is high, as use restrictions are readily implementable and easily maintained. Given the historical, heavily industrial uses of the Site and the surrounding area, including the presence of landfills, land and groundwater use restrictions are expected to continue in the long term.

Reduction of Toxicity, Mobility, or Volume of Waste: The assessment against this criterion evaluates the anticipated performance of specific technologies that a remedial action alternative may employ. The capping remedy will prevent the spread of contaminants in wind-blown dust or stormwater and will prevent infiltration through the unsaturated zone from carrying contaminants to the groundwater. Thus, the mobility of contaminants will be reduced by the capping remedy.

Short-term Effectiveness: The assessment against this criterion examines how well the proposed remedy protects human health and the environment during the construction and implementation until response objectives have been met. This criterion also includes an estimate of the time required to achieve protection for either the entire site or individual elements associated with specific site areas or threats. The risks to the Construction Worker during remedy implementation are mitigated by executing the Modified Level D PPE requirements outlined in **Appendix D**. The short-term risk to site workers following these upgraded health and safety measures during implementation of the remedy will be low, leading to a high level of short-term effectiveness for protection of future site users and the environment. Short-term effectiveness in protecting on-site workers and the environment will be achieved through establishing appropriate management, construction, health and safety, and security procedures. Proper water management protocols will be implemented to prevent discharges offsite. Security and fences will be used to maintain controlled access during construction.

Implementability: The assessment against this criterion evaluates the technical and administrative feasibility, including the availability of trained and experienced personnel, materials, and equipment. Technical feasibility includes the ability to construct and operate the technology, the reliability of the technology, and the ability to effectively monitor the technology. Administrative feasibility includes the capability of obtaining permits, meeting permit requirements, and coordinating activities of governmental agencies. The proposed capping remedy will use readily available, typically acceptable, and proven technologies.

Cost Effectiveness: The assessment against this criterion evaluates the capital costs, annual Operating and Maintenance (O&M) costs, and the net present value (NPV) of this remedy relative to alternatives. The capping remedy remedial costs would be incurred as part of the proposed site development, regardless of the findings of the SLRA or the placement of slag aggregate on the Site.

State Support / Agency Acceptance: MDE has been involved throughout the Site investigation process. The proposed use restrictions included in the proposed remedy are generally recognized as commonly employed measures for long-term stewardship. Ultimately State/MDE support will be evaluated based on comments received during the public comment period.

A capping remedy with institutional controls will satisfy the CERCLA Threshold Criteria and the Balancing Criteria and will do so in a manner that ensures reliable implementation and effectiveness. The remedy is cost-effective and consistent with the proposed development plan.

4.0 PROPOSED SITE DEVELOPMENT PLAN

Tradepoint Atlantic is proposing to construct a logistics center on Sub-Parcel B22-2. The proposed development will include permanent improvements on approximately 45.0 acres of land intended for occupancy within Parcel B21 and Parcel B22. The proposed future use of Sub-Parcel B22-2 is Tier 3 – Industrial. The remainder of these parcels will be addressed in separate plans in accordance with the requirements of the ACO that will include RADWPs, if necessary. Narrow areas within the LOD will be utilized to place fill material to tie into the surrounding grade outside of the Sub-Parcel B22-2 (as shown on the attached development plan drawings). The temporary work outside of the boundary of the Site is not intended to be the basis for the issuance of a NFA or a COC, although the scope of construction is covered by this RADWP. The Site (45.0 acres encompassing Sub-Parcel B22-2) will be fully capped by surface engineering controls.

Certain compounds are present in the soils located near the surface and in the subsurface at concentrations in excess of the PALs. Therefore, soil is considered a potential media of concern. Potential risks to future adult workers associated with impacts to soil and groundwater exceeding the PALs will be addressed through a remedy consisting of surface engineering controls (capping of the entire area) and institutional controls (deed restrictions). The development plan provides for a containment remedy and institutional controls that will mitigate future adult workers from contacting impacted soil at the Site. In addition, Tradepoint Atlantic has proposed the use of processed slag aggregate as the primary fill material and pavement subbase at the Site. The placement of materials other than approved clean fill, including slag aggregate, requires the installation of surface engineering controls regardless of the existing soil conditions.

Future Construction Workers may contact impacted surface and/or subsurface soil during earth movement activities associated with construction activities. The findings of the Construction Worker SLRA using the selected exposure frequency for the site-wide EU (25 days) indicated the estimate of Construction Worker cancer risk was less than 1E-5 and no HI values above 1 were identified for any target organ system (the acceptable thresholds for no further action). This evaluation indicates that site-specific health and safety protocols or further action would be required only if this duration were exceeded.

Certain activities at the Site have the potential to exceed the allowable duration, and Construction Worker risks will be mitigated via site-specific health and safety requirements. Upgraded PPE beyond standard Level D protection will be used in conjunction with the property-wide Health and Safety Plan (HASP) for the entire scope of intrusive work covered by this RADWP as a protective measure to ensure that there are no unacceptable exposures for Construction Workers during project implementation. The Modified Level D PPE requirements which will be applied throughout this project, including specific PPE details, planning, tracking/supervision, enforcement, and documentation, are outlined in the PPE SOP provided as **Appendix D**.

A restriction prohibiting the use of groundwater for any purpose at the Site will be included as an institutional control in the NFA and COC issued by the MDE, and a deed restriction prohibiting the use of groundwater will be filed. The groundwater use restriction will protect future Composite Workers from potential direct exposures. Proper water management is required to prevent unacceptable discharges or risks to Construction Workers during development. Work practices and health and safety plans governing groundwater encountered during excavation activities will provide protection for Construction Workers involved with development at the Site.

The development plan for the Site is shown on **Figure 2** and **Figure 3,** and the detailed development drawings (provided by Bohler Engineering) are included as **Appendix E**. The process of constructing the proposed logistics center will involve the tasks listed below. Documentation of the outlined tasks and procedures will be provided in a Sub-Parcel B22-2 Development Completion Report.

4.1 RESPONSE PHASE – GROUNDWATER NETWORK

Multiple temporary piezometers were located within the project LOD, but all of the temporary piezometers completed under the Finishing Mills Groundwater Phase II Investigation (**Figure 6**) have been properly abandoned. Additionally, several temporary piezometers installed during the prior PORI Lagoon Characterization Investigation (**Figure 7c**) have also been properly abandoned. A limited scope of additional investigation work was recently completed in the vicinity of the PORI Lagoon, the findings of which were provided in the PORI Lagoon CMS Report (included as an electronic attachment). Each piezometer installed for the supplemental investigation has also been abandoned. All abandonments were completed in accordance with COMAR 26.04.04.34 through 36. Records of all abandonments (including abandonment forms, if available) will be included in the Development Completion Report. No permanent monitoring wells are presently located on the Site, and no well abandonments are proposed under this development project.

As noted in the PORI Lagoon Characterization Report and the PORI Lagoon CMS Report, a NAPL recovery well shall be installed at the former location of B22-119K-PZ. Based on the limited accumulation of NAPL at this location, a passive recovery method such as an absorbent down-well sock will be used. As presented in the CMS Report, additional downgradient monitoring wells will be installed between the PORI Lagoon and the TMC, outside of the Sub-Parcel B22-2 development area. The proposed sampling and reporting schedule for downgradient groundwater monitoring (following the completion of construction) is detailed in the CMS Report.

4.2 DEVELOPMENT PHASE

4.2.1 Erosion and Sediment Control Installation

Installation of erosion and sediment controls will be completed in accordance with the requirements of the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment

Control prior to construction at the Site. Any soils which are disturbed during the installation of erosion and sediment controls will be replaced on-site below the cap.

4.2.2 Grading and Site Preparation

As indicated on the development plans in **Appendix E**, grading activities including both cut and fill will occur within the Sub-Parcel B22-2 boundary. Any material that is not suitable for compaction will be excavated and replaced with subbase material, although it is not anticipated that poor soils will be encountered. Borrow materials will be obtained from MDE-approved sources and will be documented prior to transport to the Site. Processed slag aggregate sourced from the Tradepoint Atlantic property or other materials approved by the MDE for industrial use will be used as fill. The placement of materials other than approved clean fill will necessitate that the Site will be subject to surface engineering controls (i.e., capping). Fill sources shall be free of organic material, frozen material, or other deleterious material. In the case that there is excess material (not anticipated), the spoils will be stockpiled at a suitable location in accordance with the Materials Management Plan (MMP) for the Sparrows Point Facility (Papadopulos & Associates, et al., June 17, 2015). This work will be coordinated with MDE accordingly. No excess material will leave the 3,100-acre property without prior approval from MDE.

4.2.3 Installation of Structures and Underground Utilities

The logistics center, parking lot, utilities and other infrastructure associated with the development of Sub-Parcel B22-2 will be installed as shown on the drawings in **Appendix E**. Soils relocated or removed during construction may be replaced on-site below the cap, but soil removed from utility trenches cannot be used as fill within the utility trenches unless such materials are approved for this use by the VCP. Additional protocols for the installation of utilities at the Site are provided in Section 5.1.2. Any water removed will be sampled (if necessary) as described in Section 5.2 and (if acceptable) sent to the on-site HCWWTP via the TMC.

4.2.4 Floor Slabs and Paving

Much of the Site will be covered with paving or floor slabs as indicated in the development plans provided in **Appendix E**. The paved areas will receive a layer of subbase material which will consist of compacted aggregate base, which may include processed slag aggregate sourced from the Tradepoint Atlantic property. The placement of processed slag aggregate or materials other than MDE-approved clean fill will necessitate that the Site will be subject to surface engineering controls (i.e., capping).

The required minimum thicknesses of all site-wide pavement sections which will serve as surface engineering controls are shown in the minimum capping section details provided in **Appendix F**. According to the development plans, all paved areas at the Site will be installed with a minimum of 4 inches of compacted aggregate base and a minimum of 4 inches of overlying pavement surface (asphalt or concrete), which meet these required minimum thicknesses.

4.2.5 Landscaping Caps

All areas outside of the hardscapes (concrete and asphalt) shown on the development plans (**Appendix E**) will be covered by landscaped caps. The required minimum thicknesses of all site-wide landscaping sections which will serve as surface engineering controls are shown in the minimum capping section details provided in **Appendix F**. According to the development plans, all landscaped areas at the Site will be installed with a minimum of 6 inches of clean topsoil overlying 18 inches of clean fill, with an underlying geotextile marker fabric between the clean fill and the existing underlying material. The proposed landscape sections for the Site meet the minimum capping requirements.

4.2.6 Stormwater Management

The proposed stormwater utility layout for the Site is provided on the development plan drawings in **Appendix E**. New stormwater infrastructure will be installed throughout the Site and will tie into existing stormwater drain infrastructure which discharges to the TMC.

Tradepoint Atlantic is working with the MDE Industrial & General Permits Division to renew the property-wide NPDES permit. The stormwater management systems for each parcel are reviewed and approved by Baltimore County for each individual development project.

5.0 DEVELOPMENT IMPLEMENTATION PROTOCOLS

5.1 DEVELOPMENT PHASE

This plan presents protocols for the handling of soils and fill materials in association with the development of Sub-Parcel B22-2. In particular, this plan highlights the minimum standards for construction practices and managing potentially contaminated materials to reduce potential risks to workers and the environment.

Several exceedances of the PALs were identified in soil samples across the Site. The PALs are set based on USEPA's RSLs for industrial soils, or other direct guidance from the MDE. Because PAL exceedances can present potential risks to human health and the environment at certain concentrations, this plan presents material management and other protocols to be followed during the work to adequately mitigate potential risks from such materials remaining on-site during the development phase. No soils contaminated with lead in excess of 10,000 mg/kg have been identified in Sub-Parcel B22-2. There was one soil sample within Sub-Parcel B22-2 with an elevated concentration of total PCBs in excess of 50 mg/kg (B22-028-SB-1 with 74.4 mg/kg); however, the impacts at this location have been addressed via a remedial excavation. No additional response actions are proposed with respect to PCBs at the Site.

There were multiple locations within, or in close proximity to, the proposed development LOD with soil exceedances of the TPH/Oil & Grease PAL (6,200 mg/kg) and/or evidence of NAPL in the soil cores (discussed in Section 3.2.3 and Section 3.2.4). These borings are pictured with the development plan on **Figure 9** and should be considered with respect to utility alignments and inverts prior to trenching in these areas. The soil boring observation logs from these locations are provided for reference in **Appendix B**.

Following completion of the SLRA, the findings of the Construction Worker evaluation using the selected exposure frequency for the site-wide EU (25 days) indicated the estimate of Construction Worker cancer risk was less than 1E-5 and no HI values exceeded 1 for any target organ system (the acceptable thresholds for no further action). Certain activities at the Site have the potential to exceed the allowable duration, and Construction Worker risks will be mitigated via site-specific health and safety requirements. Upgraded PPE beyond standard Level D protection will be used in conjunction with the HASP for the entire scope of intrusive work covered by this RADWP as a protective measure to ensure that there are no unacceptable exposures for Construction Workers during project implementation. The Modified Level D PPE requirements which will be applied throughout this project, including specific PPE details, planning, tracking/supervision, enforcement, and documentation, are outlined in the PPE SOP provided as **Appendix D**.

Based on the characterization of soils and the associated SLRA findings, surface engineering controls are an acceptable remedy at the Site to be protective of future adult Composite Workers who could potentially contact soil at the Site. In addition, Tradepoint Atlantic has proposed the use of processed slag aggregate as the primary fill material and pavement subbase at the Site. The placement of materials other than approved clean fill, including slag aggregate, requires the installation of surface engineering controls (i.e., capping) regardless of the existing soil conditions. The proposed capping sections will meet the required minimum thicknesses for surface engineering controls, which are provided in **Appendix F**.

5.1.1 Erosion/Sediment Control

Erosion and sediment controls will be installed prior to commencing work in accordance with the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control. The erosion and sediment controls will be approved by the MDE. In addition, the following measures will be taken to prevent contaminated soil from exiting the Site:

- Stabilized construction entrance will be placed at site entrance.
- A dry street sweeper will be used as necessary on adjacent roads, and the swept dust will be collected and properly managed.
- Accumulated sediment removed from silt fence, and sediment traps if applicable, shall be periodically removed and returned to the Site.

5.1.2 Soil Excavation and Utility Trenching

A pre-excavation meeting shall be held to address proper operating procedures for working on-site and monitoring excavations and utility trenching in potentially contaminated material. This meeting shall include the construction manager and the Environmental Professional (EP) providing oversight on the project. During the meeting, the construction manager and the EP shall review the proposed excavation/trenching locations and any associated utility inverts. The construction manager will be responsible for conveying all relevant information regarding excavation/grading and/or utility work to the workers who will be involved with these activities. The HASP and PPE SOP for the project shall be reviewed and discussed.

The Utility Excavation NAPL Contingency Plan (discussed below) must also be reviewed during the pre-excavation meeting. There were multiple borings with potential evidence of NAPL and/or elevated analytical detections of TPH/Oil & Grease identified during the previous investigations within, or in close proximity to, the development LOD (see **Figure 9** and **Appendix B**). Soil screening will be especially important during any excavation of existing soil in these areas.

The EP will provide oversight of soil excavation/trenching activities as described in Section 5.6. Soil excavation/trenching will occur during various phases of construction. In general, and based on the existing sampling information, all excavated materials are expected to be suitable for replacement on the Site. However, the EP will monitor the soil excavation activities for signs of significantly contaminated material which may not be suitable for reuse (as described below). The

EP will also be responsible for monitoring organic vapor concentrations in the worker breathing zone within utility trenches and excavations to determine whether any increased level of health and safety protection is required.

To the extent practical, all excavation activities should be conducted in a manner to minimize double or extra handling of materials. Any stockpiles shall be kept within the Site footprint, and in a location that is not subjected to concentrated stormwater runoff. Stockpiles shall be managed as necessary to prevent the erosion and off-site migration of stockpiled materials, and in accordance with the applicable provisions of the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control. Soil designated for replacement on-site which does not otherwise exhibit evidence of contamination (as determined by the EP) may be managed in large stockpiles (no size restriction) as long as they remain within the erosion and sediment controls.

All utility trenches will be backfilled with bedding and backfill materials approved by the MDE for industrial use. A general utility cross section is provided as **Appendix G**. Additional preventative measures will be required if evidence of petroleum contamination is encountered, to prevent the discharge to, or migration of, petroleum product along a utility conduit. Contingency measures have been developed to ensure that utilities will be constructed in a manner that will prevent the migration of any encountered NAPL, and that excavated material will be properly managed. The Utility Excavation NAPL Contingency Plan (**Appendix H**) provides protocols to be followed if NAPL is encountered during the construction activities. Preventative measures to inhibit the spread of petroleum product will be conducted in accordance with this plan.

The EP will monitor all soil excavation and utility trenching activities for signs of potential contamination. In particular, soils will be monitored with a hand-held PID for potential VOCs and will also be visually inspected for the presence of staining, petroleum waste materials, or other indications of significant contamination. If screening of excavated materials by the EP indicates the presence of conditions of potential concern (i.e., sustained PID readings greater than 10 ppm, visual staining, unsuitable waste materials, etc.), such materials shall be segregated for additional sampling and special management.

Excavated material exhibiting evidence of significant contamination shall be placed in stockpiles (not to exceed 500 cubic yards) on polyethylene sheeting and covered with polyethylene sheeting to minimize potential exposures and erosion when not in use. Materials stockpiled due to evidence of contamination will be sampled in accordance with waste disposal requirements and transported to an appropriate permitted disposal facility. Plans for analysis of segregated soils for any use other than disposal must be submitted to the MDE for approval.

Excavated material that is visibly impacted by NAPL will be segregated and managed in accordance with the requirements specified in the Utility Excavation NAPL Contingency Plan. Excavated material with indications of possible NAPL contamination will also be containerized or placed in a stockpile (not to exceed 500 cubic yards) on polyethylene sheeting and covered with polyethylene sheeting until the material can be analyzed for TPH/Oil & Grease and PCBs (total) to characterize the material for appropriate disposal. The MDE will be notified if such materials are encountered during excavation or utility trenching activities.

5.1.3 **Soil Sampling and Disposal**

Excavated materials that are determined by the EP to warrant sampling and analysis because of elevated PID readings or other indications of potential contamination shall be sampled and analyzed to determine how the materials should be managed. If excavated and stockpiled, such materials should be covered with a polyethylene tarp to minimize potential exposures and erosion. All stockpiled soil may be considered for use as fill at this Site or on other areas of the property depending on the analytical results. A sampling Work Plan including a description of the material, estimated volume, and sampling parameters will be submitted to the MDE for approval. The resulting analytical data will be submitted to the MDE to determine the suitability of the material for reuse. If the MDE determines that the materials are unsuitable for reuse, the materials will be sampled to determine if they are classified as hazardous waste.

Soil material that is determined to be a hazardous waste shall be shipped off-site in accordance with applicable regulations to an appropriate and permitted RCRA disposal facility. Soil material may be taken to an appropriate non-hazardous landfill (including Greys Landfill) for proper disposal if the concentrations of excavated sampled materials indicate that the materials are not hazardous, but still are not suitable for reuse. The quantities of all materials that require disposal, if any, will be recorded and identified in the Development Completion Report.

5.1.4 **Fill**

Processed slag aggregate sourced from the Tradepoint Atlantic property will be used as the primary fill material for this project. The placement of processed slag aggregate or materials other than approved clean fill will necessitate that the Site will be subject to surface engineering controls (i.e., capping). Soil excavated on the sub-parcel has been determined to be suitable for re-use at the Site below the surface engineering controls, unless such materials are determined by the EP/MDE to be unsuitable for use as outlined in Section 5.1.2 and Section 5.1.3.

All over-excavated utility trenches will be backfilled with bedding and backfill approved by the MDE for industrial use. Soil removed from utility trenches cannot be used as fill within the utility trenches unless such materials are approved for this use by the VCP. As with structural fill, processed slag aggregate and other materials approved for industrial use can be used as backfill in utility trenches if the area will be covered by a VCP cap. Any utility backfill which will extend into the cap (i.e., top 2 feet of backfill in landscaped areas) must meet the VCP clean fill requirements, and a geotextile marker fabric will be placed between the VCP clean fill and any underlying material. A general utility detail drawing is provided as **Appendix G**. Materials placed in areas outside of the Site boundary (i.e., materials placed within the LOD at the edges of the Site to tie into the surrounding grade) must meet the VCP clean fill requirements or be otherwise approved by the MDE prior to placement. Material imported to the Site will be screened according to MDE guidance for suitability.

5.1.5 Dust Control

General construction operations, including soil excavation and transport, and trenching for utilities will be performed at the Site. These activities are anticipated to be performed in areas of soil impacted with COPCs. Best management practices should be undertaken at the Sparrows Point property as a whole to prevent the generation of dust which could impact other areas of the property outside of the immediate work zone. To limit worker exposure to contaminants borne on dust and windblown particulates, dust monitoring will be performed in the immediate work zone and at the upwind and downwind perimeter of the Site, and dust control measures will be implemented if warranted based on the monitoring results. The action level proposed for the purpose of determining the need for dust suppression techniques (e.g. watering and/or misting) during the development activities at the Site will be 3.0 mg/m^3. The lowest of the site-specific dust action levels, OSHA PELs, and ACGIH TLV was selected as the proposed action level.

The EP will be responsible for the dust monitoring program. Air monitoring will be performed using Met One Instruments, Inc. E-Sampler dust monitors or equivalent real-time air monitoring devices. The EP will set-up dust monitoring equipment at the outset of ground intrusive work or other dust-generating activities, and continuous dust monitoring will be performed during this work. In addition to work area monitoring, a dust monitor will be placed at selected perimeter locations that will correspond to the upwind and downwind boundaries based on the prevailing wind direction predicted for that day. The prevailing wind direction will be assessed during the day, and the positions of the perimeter monitors will be adjusted if there is a substantial shift in the prevailing wind direction.

Once all dust-generating activities are complete (which may occur at a later stage of the project once ground intrusive work has been completed or after the Site has been capped), the dust monitoring program may be discontinued. If additional dust-generating activities commence, additional dust monitoring activities will be performed.

If sustained dust concentrations exceed the action level (3.0 mg/m^3) at any of the monitoring locations as a result of conditions occurring at the Site, operations will be stopped temporarily until dust suppression can be implemented. Operations may be resumed once monitoring indicates that dust concentrations are below the action level. The background dust concentration will be utilized to evaluate whether Site activities are the source of the action level exceedance. The background dust concentration will be based on measurements over a minimum of a 1-hour period at the upwind Site boundary. The upwind data will be used to calculate a time weighted average background dust concentration. As noted above, the locations of the perimeter dust monitors may be adjusted periodically if there is a substantial shift in the prevailing wind direction.

As applicable, air monitoring will be conducted during development implementation activities to assess levels of exposure to Site workers, establish that the work zone designations are valid, and verify that respiratory protection being worn by personnel, if needed, is adequate. Concurrent with the work zone air monitoring, perimeter air monitoring will also be performed at the upwind and downwind Site boundaries to ensure contaminants are not migrating off-site. The concentration measured at the downwind perimeter shall not exceed the action level of 3.0 mg/m³, unless caused by background dust from upwind of the Site. If exceedances of the action level are identified downwind for more than five minutes, the background dust concentration shall be evaluated to determine whether the action level exceedances are attributable to Site conditions. If on-site activities are the source of the exceedances, dust control measures and additional monitoring will be implemented. The dust suppression measures may include wetting or misting using a hose connected to a water supply or a water truck stationed at the Site.

Dust control measures will be implemented as described above to address dust generated as a result of construction activities conducted at the Site. However, based on the nature of the area and/or ongoing activities surrounding the Site, it is possible that windblown particulates may come from surrounding areas. As discussed above, the dust concentration in the upwind portion of the Site will be considered when monitoring dust levels in the work area. A pre-construction meeting will be held to discuss the potential of windblown particulates from other activities impacting the air monitoring required for this RADWP. Site contact information will be provided to address the possibility of upwind dust impacts. If sustained dust is observed above the action level (3.0 mg/m³) and it is believed to originate from off-site (i.e., upwind) sources, this will immediately be reported to the MDE-VCP project team, as well as the MDE Air and Radiation Administration (ARA).

5.2 WATER MANAGEMENT

This plan presents the protocols for handling any groundwater or surface water that needs to be removed to facilitate construction of the proposed Sub-Parcel B22-2 development.

5.2.1 Groundwater PAL Exceedances

Shallow groundwater samples were collected from a total of 10 locations within and surrounding the Site during the preceding Finishing Mills Groundwater Phase II Investigation, and from eight additional locations during the PORI Lagoon Characterization Investigation. Five of the samples were collected from shallow permanent wells positioned along the border of the TMC, and the remaining samples were collected from shallow temporary groundwater sample collection points (piezometers). Aqueous PAL exceedances among these samples included both inorganics and organic compounds. The aqueous PAL exceedances obtained from the preceding investigations are shown on **Figure GW1** and **Figure 7c**. A limited scope of additional groundwater investigation work was recently completed in the vicinity of the PORI Lagoon. The findings from the supplemental investigation were provided in the PORI Lagoon CMS Report (included as an electronic attachment).

While the concentrations of PAL exceedances are not deemed to be a significant human health hazard for future Composite Workers since there is no on-site groundwater use which could lead to direct exposures, proper water management is required during construction to prevent unacceptable discharges or risks to Construction Workers.

5.2.2 Dewatering

Dewatering may be necessary during the installation of underground utilities and within excavations/trenches. As shown on **Figure 10**, the shallow groundwater elevations underlying the Site vary from approximately 1 to 10 feet amsl. If dewatering is required during construction, it shall be done in accordance with all local, state, and federal regulations. Water that collects in excavations/trenches due to intrusion of groundwater, stormwater, and/or dust control waters will be transported to the HCWWTP. The water will be treated and discharged in accordance with NPDES Permit No. 90-DP-0064A; I. Special Conditions; A.4; Effluent Limitations and Monitoring Requirements.

Any water that must be removed and sent to the HCWWTP will be pumped or trucked directly to the TMC. Water in the TMC feeds into the HCWWTP where it is treated prior to release into Bear Creek. Any water discharged to the TMC will be pumped through a filter bag or equivalent to remove suspended solids prior to discharge. Dewatering fluids will be evaluated and then tested (if required) pursuant to the protocol submitted within the HCWWTP Constituent Threshold Limits for Dewatering Activities related to Remediation, Development, and Capping Letter dated March 3, 2021. If the groundwater does not meet the constituent threshold limits specified in the protocol, the groundwater will be pre-treated.

Note that additional analyses could be required if warranted based on field observations by the EP. The EP will inspect any water that collects in the excavations/trenches. If the water exhibits indications of significant contamination (sheen, odor, discoloration, presence of product), the water may be sampled and analyzed for some or all of the analyses listed below. In such case, the analyses run will be dependent on the suspected source of contamination and local site conditions.

The results of the analyses will be reviewed by the HCWWTP operator to determine if any wastewater treatment system adjustments are necessary. If the results of the analyses are above the threshold levels listed below, the water will be further evaluated to confirm acceptable treatment at the HCWWTP, or will be evaluated to design an appropriate pre-treatment option. Alternatively, the water may be disposed of at an appropriate off-site facility.

Analysis	Threshold Levels
• Total metals by USEPA Method 6020A	1,000 ppm
• PCBs by USEPA Method 8082	>Non-Detect
• SVOCs by USEPA Method 8270C	1 ppm

- VOCs by USEPA Method 8260B 1 ppm
- Oil & Grease by USEPA Method 1664 200 ppm
- TPH-DRO by USEPA Method 8015B 200 ppm
- TPH-GRO by USEPA Method 8015B 200 ppm

Documentation of any water testing, as well as the selected disposal option, will be reported to the MDE in the Development Completion Report. Any permits or permit modifications related to dewatering will be provided to the agencies as addenda to this RADWP.

5.3 HEALTH AND SAFETY

A property-wide HASP has been developed and is provided with this RADWP (as an electronic attachment) to present the minimum requirements for worker health and safety protection for all development projects. All contractors working on the Site must prepare their own HASP that provides a level of protection at least as much as that provided by the property-wide HASP. Alternately, on-site contractors may elect to adopt the HASP provided.

General health and safety controls (level D protection) are adequate to mitigate potential risks to Construction Workers conducting ground intrusive activities for a duration of up to 25 exposure days. Certain activities at the Site have the potential to exceed the allowable duration. Modified Level D PPE will be used for the entire scope of intrusive work covered by this RADWP as a protective measure to ensure that there are no unacceptable exposures for Construction Workers during project implementation. Health and safety controls outlined in the HASP and PPE SOP will mitigate the potential risk to Construction Workers from contacting impacted soil and groundwater during development. The Modified Level D PPE requirements planned for this development project, including specific PPE details, planning, tracking/supervision, enforcement, and documentation, are outlined in the PPE SOP provided as **Appendix D**. The EP will be responsible for monitoring organic vapor concentrations in the worker breathing zone within utility trenches and excavations to determine whether any increased level of health and safety protection (including engineering controls and/or PPE) is required.

Prior to commencing work, the contractor must conduct an on-site safety meeting for all personnel. All personnel must be made aware of the HASP and the PPE SOP. Detailed safety information shall be provided to personnel who may be exposed to COPCs. Workers will be responsible for following established safety procedures to prevent contact with potentially contaminated material.

5.4 INSTITUTIONAL CONTROLS (FUTURE LAND USE CONTROLS)

Long-term conditions related to future use of the Site will be placed on the RADWP approval, NFA, and COC. These conditions are anticipated to include the following:

- A restriction prohibiting the use of groundwater for any purpose at the Site and a requirement to characterize, containerize, and properly dispose of groundwater in the event of deep excavations encountering groundwater. The entire Tradepoint Atlantic property will be subject to the groundwater use restriction.
- Notice to the MDE at least 30 days prior to any future soil disturbances that are expected to breach the approved capping remedy (i.e., through the pavement cap or marker fabric in landscaped areas).
- Notice to the USEPA at least 30 days prior to any future soil disturbances that are expected to breach the approved capping remedy, only if the proposed duration of intrusive activity would exceed the allowable exposure duration determined in the SLRA and the contractor will not use the Modified Level D PPE specified in the approved SOP.
- Requirement for a HASP in the event of any future excavations at the Site.
- Complete appropriate characterization and disposal of any material excavated at the Site in accordance with applicable local, state and federal requirements.
- Implementation of inspection procedures and maintenance of the containment remedies.

The responsible party will file the above deed restrictions as defined by the MDE-VCP in the NFA and COC. The Tenant will be required to sign onto the Environmental Covenant with restriction in the NFA. Tradepoint Atlantic will notify the Tenant of this requirement and will provide MDE with contact information for the Tenant prior to issuance of the NFA.

5.5 POST REMEDIATION REQUIREMENTS

Post remediation requirements will include compliance with the conditions specified in the NFA, COC, and the deed restrictions recorded for the Site. Deed restrictions will be recorded within 30 days after receipt of the final NFA. In addition, the MDE and USEPA will be provided with a written notice of any future excavations (as applicable) in accordance with the requirements given in Section 5.4. Written notice of planned excavation activities will include the proposed date(s) for the excavation, location of the excavation, health and safety protocols (as required), clean fill source (as required), and proposed characterization and disposal requirements.

Additional requirements will include inspection procedures and maintenance of the containment remedies to minimize degradation which could lead to future exposures. An Operations and Maintenance Plan (O&M Plan) will be submitted in the future for MDE approval. This O&M Plan will include long-term inspection and maintenance requirements for the capping remedies installed at the Site. The responsible party will perform cap inspections, perform maintenance of the cap, and retain inspection records, as required by the O&M Plan.

5.6 CONSTRUCTION OVERSIGHT

Construction Oversight by an EP will ensure and document that the project is built as designed and appropriate environmental and safety protocols are followed. Upon completion, the EP will certify that the project is constructed in accordance with this RADWP.

The EP will monitor all soil excavation and utility trenching activities for signs of potential contamination that may not have been previously identified. In particular, soils will be monitored with a hand-held PID for potential VOCs, and will also be visually inspected for staining, petroleum waste materials, or other indications of significant contamination. If screening of excavated materials by the EP indicates the presence of conditions of potential concern (i.e., sustained PID readings greater than 10 ppm, visual staining, unsuitable waste materials, etc.), such materials shall be segregated for additional sampling and special management (as described in Section 5.1.2; Soil Excavation and Utility Trenching). The EP will also perform routine periodic breathing zone monitoring and PPE spot checks during ground intrusive activities. The EP will also inspect any water that collects in the excavations/trenches on an as-needed basis to coordinate appropriate sampling prior to disposal (as described in Section 5.2.2; Dewatering).

Daily inspections, as necessary, will be performed during general site grading and cap construction activities to verify that appropriate fill materials are being used (as described in Section 5.1.4; Fill), dust monitoring and control measures are being implemented as appropriate (as described in Section 5.1.5; Dust Control), the requirements of the HASP and the PPE SOP are being enforced as applicable (as described in Section 5.3; Health and Safety), and surface engineering controls are being installed with the appropriate thicknesses (shown on the RADWP attachments). Oversight by an EP will not be required during construction activities which do not have a significant environmental component, such as above-grade building construction.

Records shall be provided by the EP to document:

- Compliance with soil screening requirements
- Proper water management, including documentation of any testing and water disposal
- Observations of construction activities during site grading and cap construction
- Proper cap thickness and construction

6.0 PERMITS, NOTIFICATIONS AND CONTINGENCIES

The participant and their contractors will comply with all local, state, and federal laws and regulations by obtaining any necessary approvals and permits to conduct the activities contained herein. Any permits or permit modifications from state or local authorities will be provided as addenda to this RADWP.

A grading permit is required if the proposed grading disturbs over 5,000 square feet of surface area or over 100 cubic yards of earth. A grading permit is required for any grading activities in any watercourse, floodplain, wetland area, buffers (stream and within 100 feet of tidal water), habitat protection areas or forest buffer areas (includes forest conservation areas). Wetlands have not been identified within the project area, so permits are not required from the MDE Water Resources Administration. Erosion and Sediment Control Plans will be submitted to, and approved by, the MDE prior to initiation of land disturbance for development.

Contingency measures will include the following:

1. The MDE will be notified immediately of any previously undiscovered contamination, previously undiscovered storage tanks and other oil-related issues, and citations from regulatory entities related to health and safety practices.

2. Any significant change to the implementation schedule will be noted in the progress reports to MDE.

3. Modified Level D PPE will be used for the entire scope of intrusive work covered by this RADWP as a protective measure to ensure that there are no unacceptable exposures for Construction Workers during project implementation. The Modified Level D PPE requirements which will be applied throughout this project are outlined in the PPE SOP provided as **Appendix D**. If it is not possible to implement the PPE SOP as provided, the agencies will be notified and a RADWP Addendum will be submitted to detail any appropriate mitigative measures.

7.0 IMPLEMENTATION SCHEDULE

Progress reports will be submitted to the MDE on a quarterly basis. Each quarterly progress report will include, at a minimum, a discussion of the following information regarding tasks completed during the specified quarter:

- Development Progress
- Dust Monitoring
- Water Management
- Soil Management (imported materials, screening, stockpiling)
- Soil Sampling and Disposal
- Notable Occurrences (if applicable)
- Additional Associated Work (if applicable)

The proposed implementation schedule is shown below. Certain activities have already been initiated at the Site under the approved Parcel B22 Logistics Center Grading Plan (Revision 0 dated March 31, 2020) and the prior (contingent) approval of the Sub-Parcel B22-2 RADWP (Revision 0), as noted below.

Task	**Proposed Completion Date**
Grading Plan Approval	April 1, 2020 (approved)
Contingent RADWP Approval	December 16, 2020 (approved)
Final RADWP Approval	April 9, 2021

Task	**Proposed Completion Date**
Installation of Erosion and Sediment Controls	October 2020 (start) *Initiated under Grading Plan*
Slag (or Alternative Fill) Delivery and Placement	October 2020 (start) *Initiated under Grading Plan*
Site Preparation/Grading – Building Pad & Parking	October 2020 (start) *Initiated under Grading Plan*
Utility Installations	December 2020 (start)

Construction of Building	February 2021 (start)
Installation of Pavements	February 2021 (start)
Submittal of Development Completion Report/ Notice of Completion of Remedial Actions*	June 2021
Request for NFA from the MDE	September 2021
Recordation of institutional controls in the land records office of Baltimore County	Within 30 days of receiving the approval of NFA from the MDE
Submit proof of recordation with Baltimore County	Upon receipt from Baltimore County

*Notice of Completion of Remedial Actions will be prepared by a Professional Engineer registered in Maryland and submitted with the Development Completion Report to certify that the work is consistent with the requirements of this RADWP and the Site is suitable for occupancy and use.

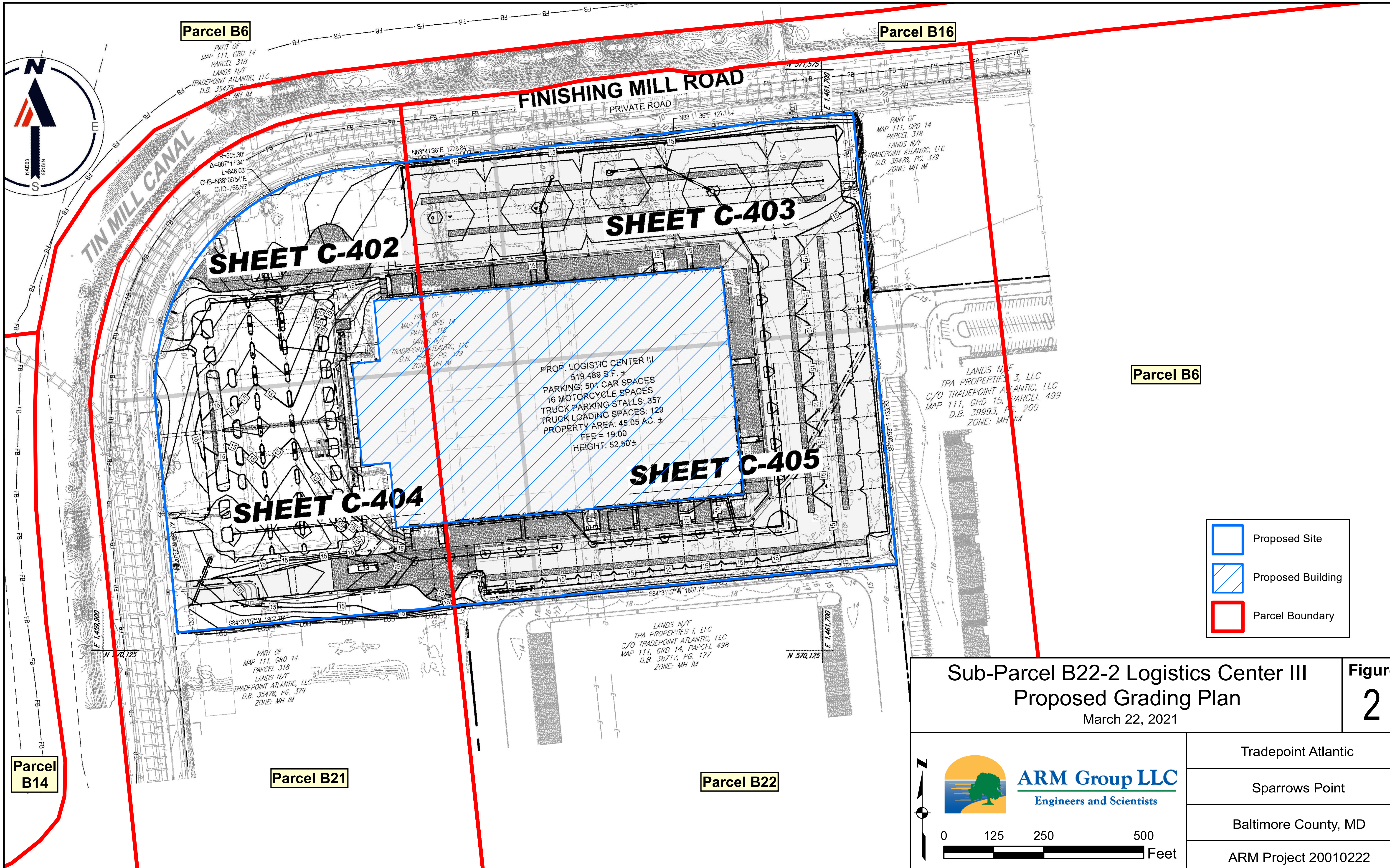
FIGURES

Tradepoint Atlantic
Area A and Area B Parcels

November 5, 2020

Figure
1

Tradepoint Atlantic
Sparrows Point
Baltimore County, MD
Area A: Project 200101
Area B: Project 200102
B22-2: Project 20010222

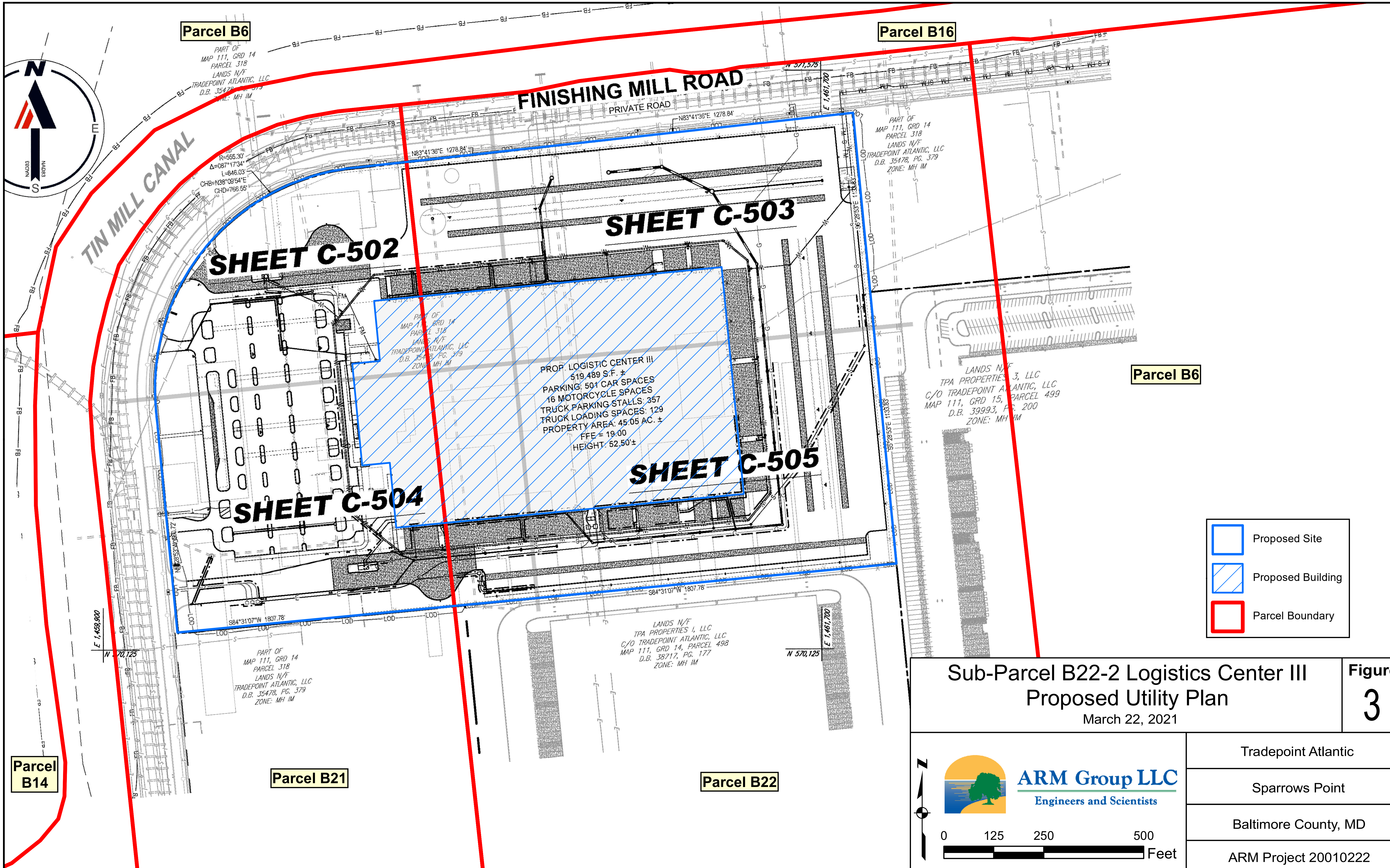


Sub-Parcel B22-2 Logistics Center III
Proposed Grading Plan
March 22, 2021

Figure 2

ARM Group LLC
Engineers and Scientists

Tradepoint Atlantic
Sparrows Point
Baltimore County, MD
ARM Project 20010222



Sub-Parcel B22-2 Logistics Center III
Proposed Utility Plan
March 22, 2021

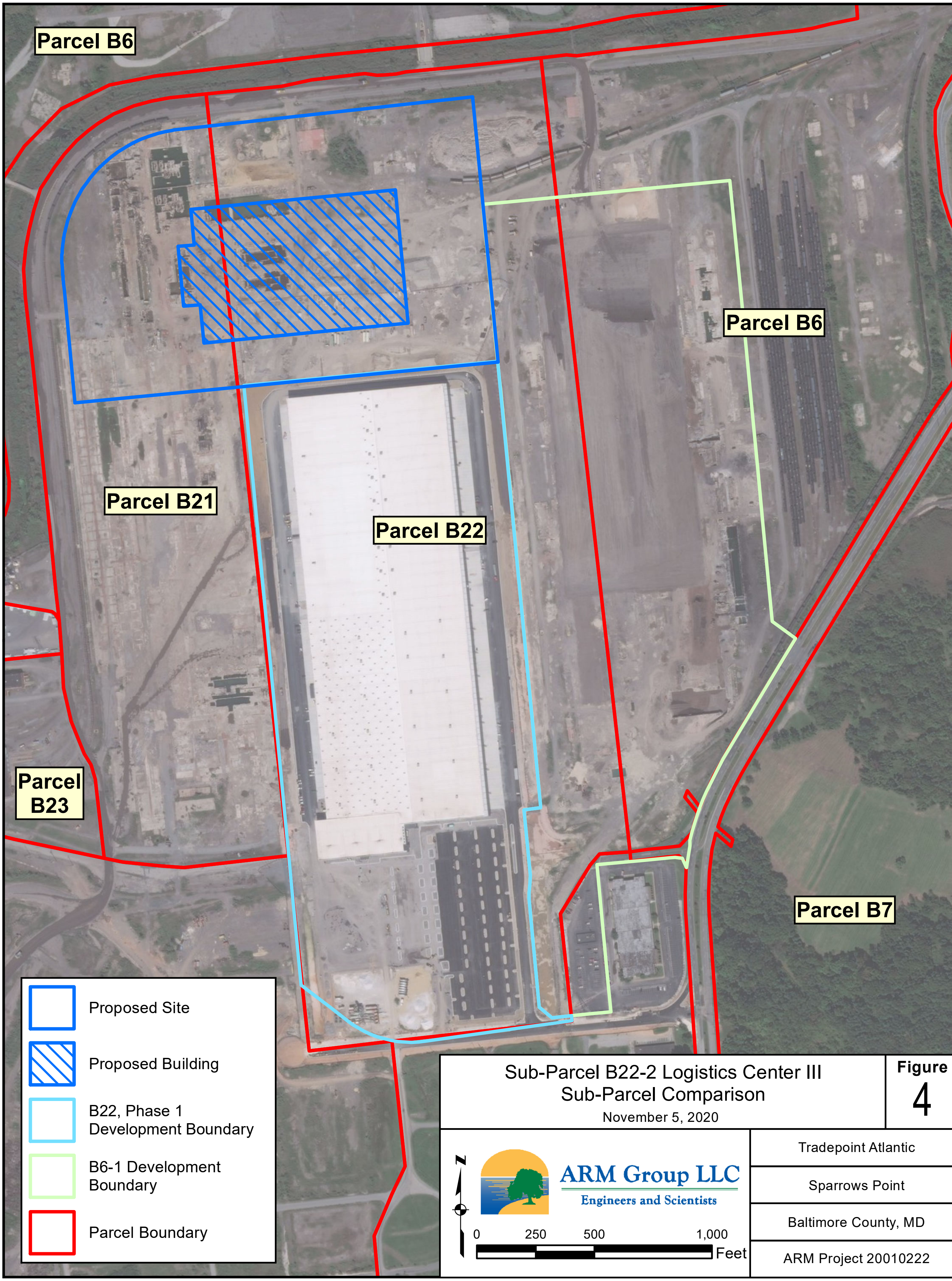
Figure 3

Tradepoint Atlantic

Sparrows Point

Baltimore County, MD

ARM Project 20010222



Proposed Site

Proposed Building

B22, Phase 1 Development Boundary

B6-1 Development Boundary

Parcel Boundary

Sub-Parcel B22-2 Logistics Center III
Sub-Parcel Comparison

November 5, 2020

Figure 4

ARM Group LLC
Engineers and Scientists

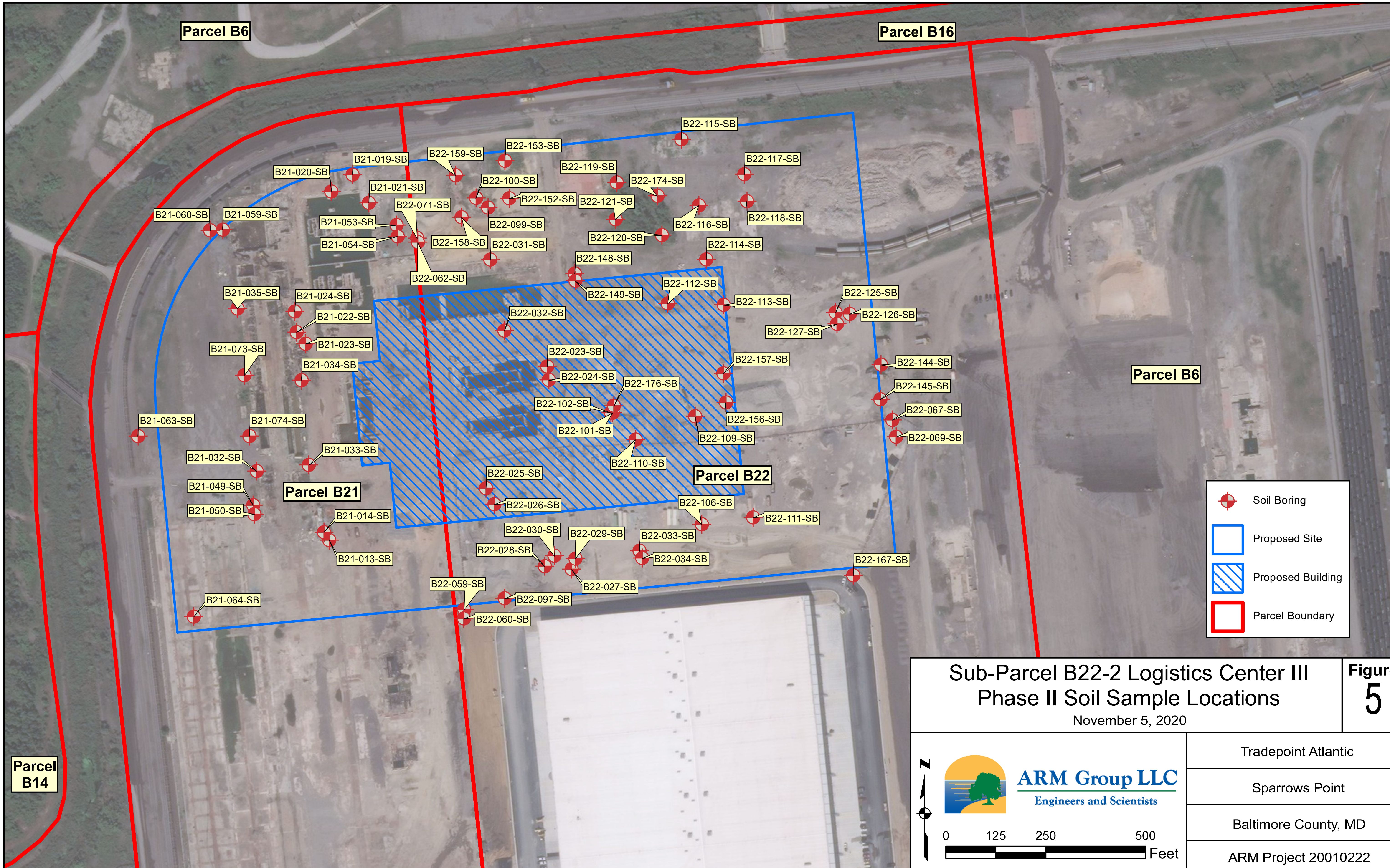
0 250 500 1,000 Feet

Tradepoint Atlantic

Sparrows Point

Baltimore County, MD

ARM Project 20010222



Sub-Parcel B22-2 Logistics Center III
Phase II Soil Sample Locations
November 5, 2020

Figure 5

Tradepoint Atlantic
Sparrows Point
Baltimore County, MD
ARM Project 20010222

Sub-Parcel B22-2 Logistics Center III
Soil SVOC PAL Exceedances (mg/kg)
November 5, 2020

Figure
SB1

ARM Group LLC
Engineers and Scientists

Tradepoint Atlantic
Sparrows Point
Baltimore County, MD
ARM Project 20010222

Sub-Parcel B22-2 Logistics Center III
Soil PCB PAL Exceedances (mg/kg)
November 5, 2020

Figure
SB2

ARM Group LLC
Engineers and Scientists

Tradepoint Atlantic
Sparrows Point
Baltimore County, MD
ARM Project 20010222

Sub-Parcel B22-2 Logistics Center III
Soil TPH/OG PAL Exceedances (mg/kg)
November 5, 2020

Figure
SB3

ARM Group LLC
Engineers and Scientists

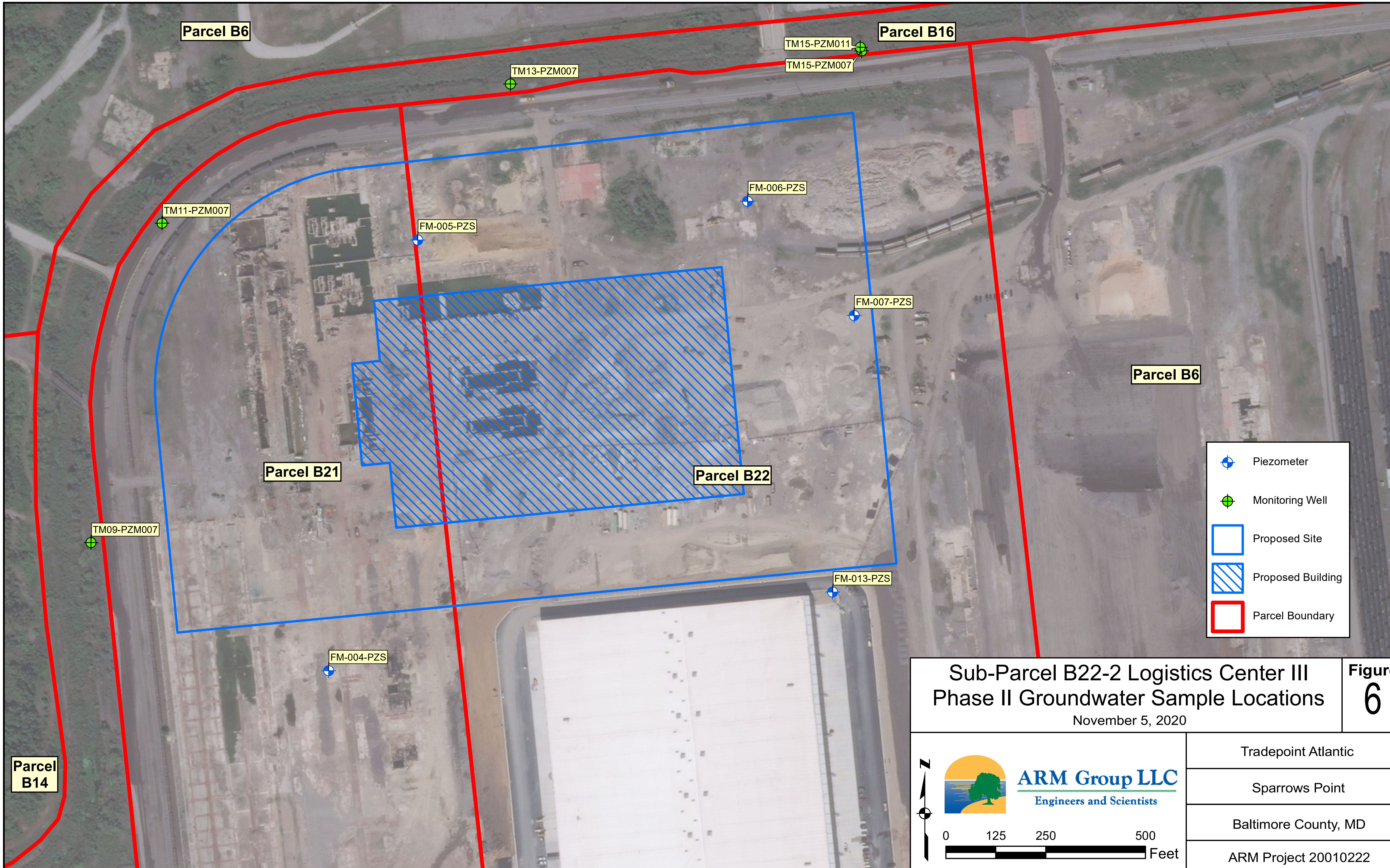
Tradepoint Atlantic
Sparrows Point
Baltimore County, MD
ARM Project 20010222

Sub-Parcel B22-2 Logistics Center III
Soil Inorganic PAL Exceedances (mg/kg)
November 5, 2020

Figure SB4

ARM Group LLC
Engineers and Scientists

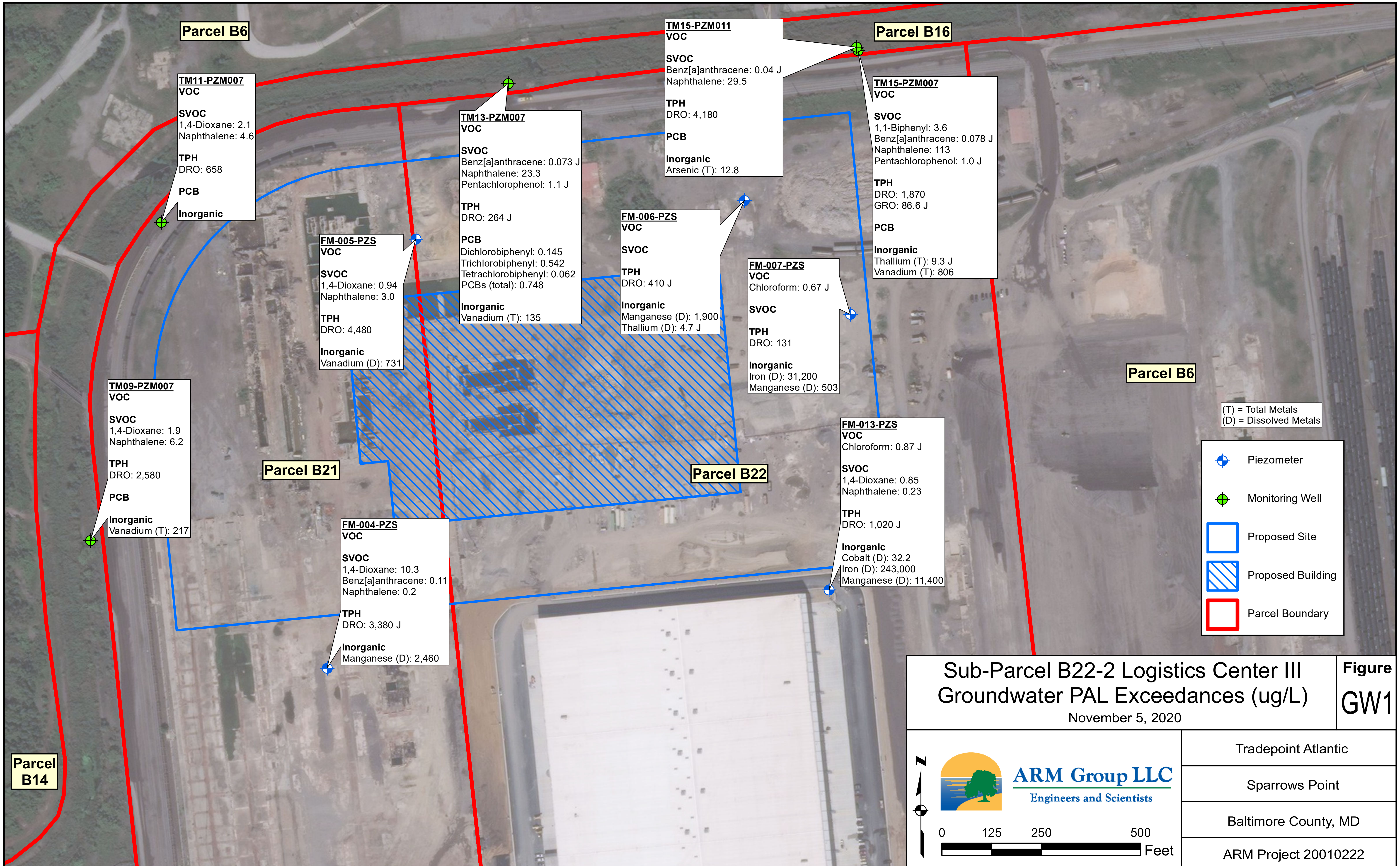
Tradepoint Atlantic
Sparrows Point
Baltimore County, MD
ARM Project 20010222



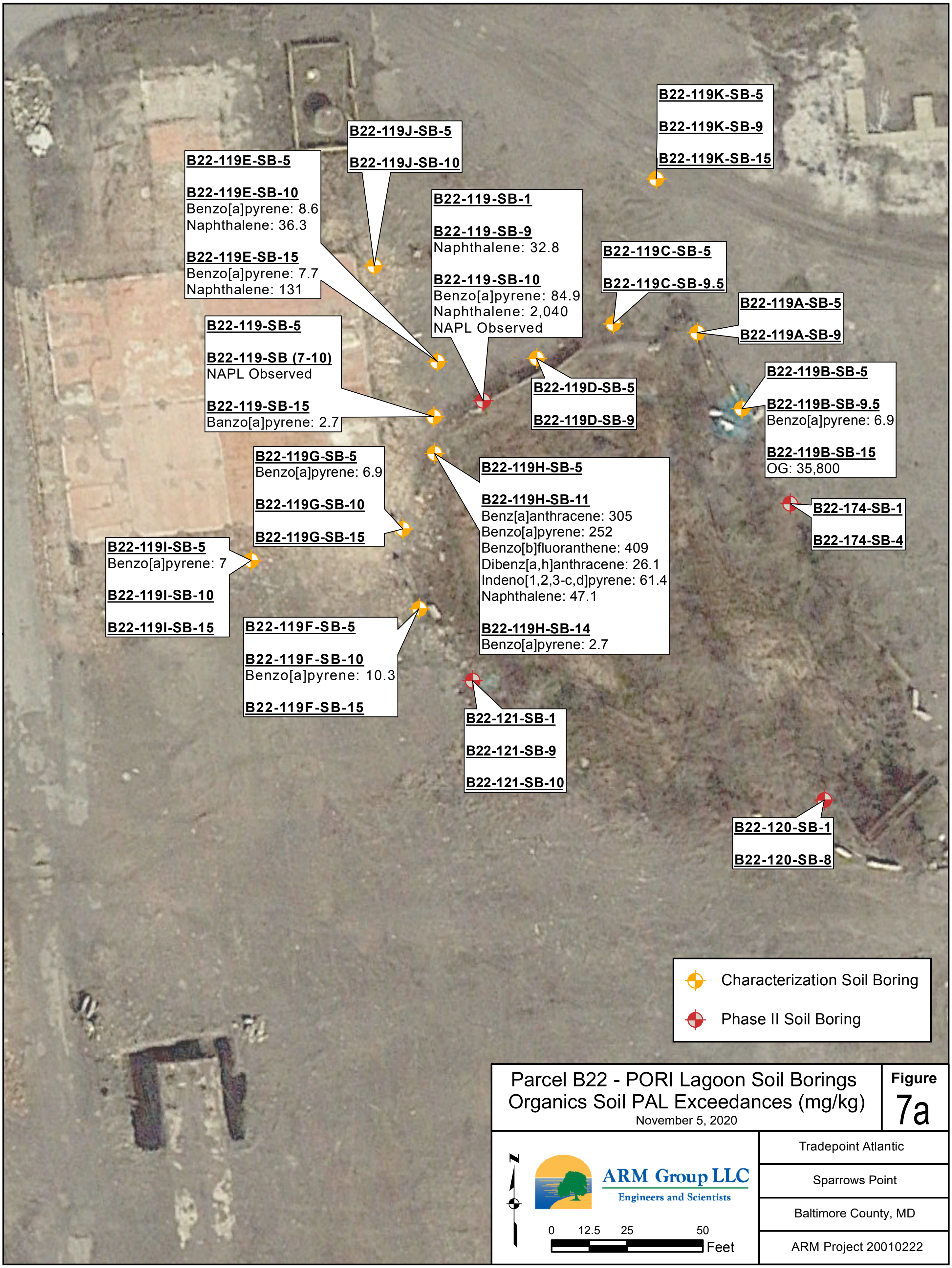
Sub-Parcel B22-2 Logistics Center III
Phase II Groundwater Sample Locations
November 5, 2020

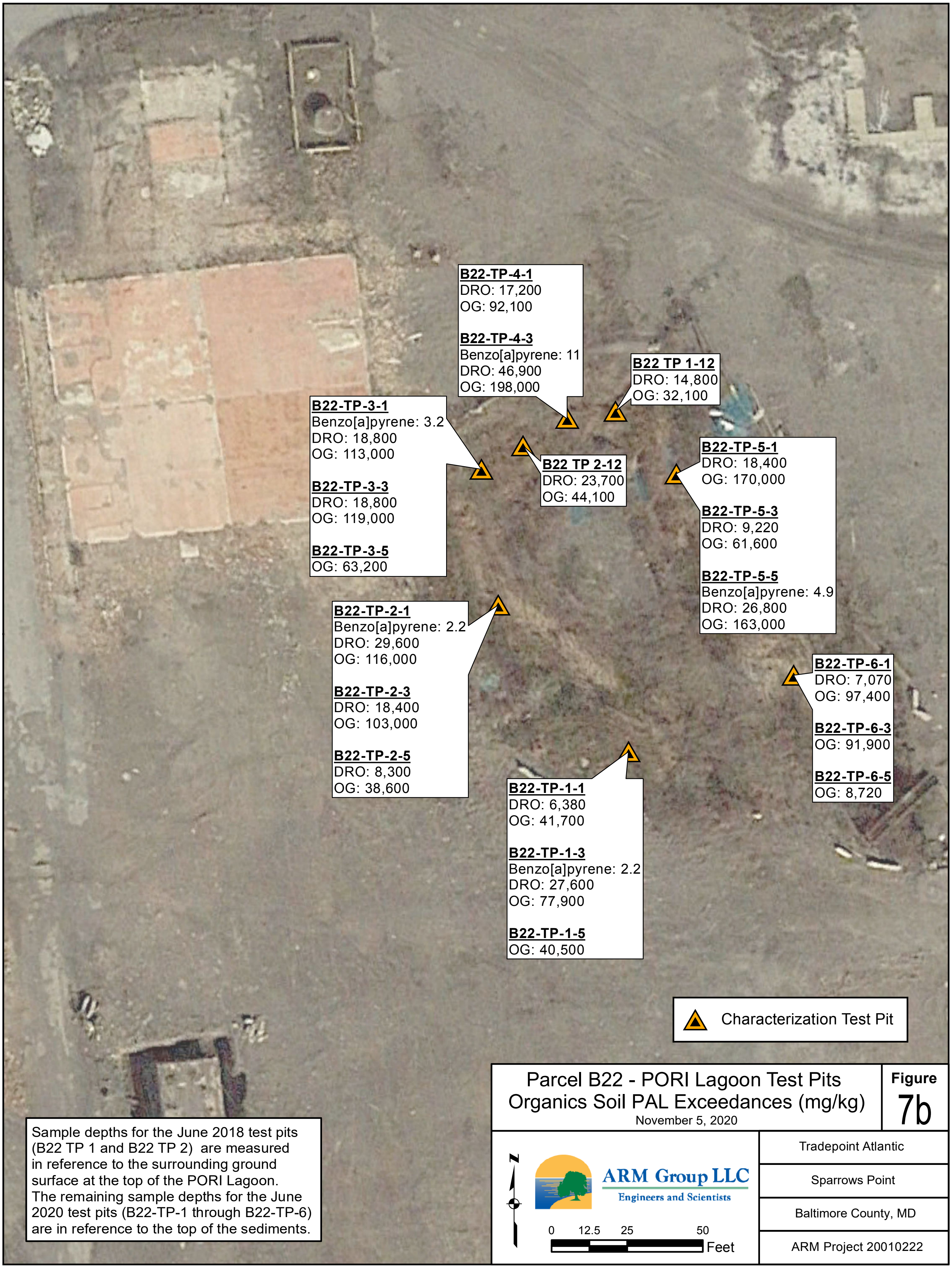
Figure 6

Tradepoint Atlantic
Sparrows Point
Baltimore County, MD
ARM Project 20010222

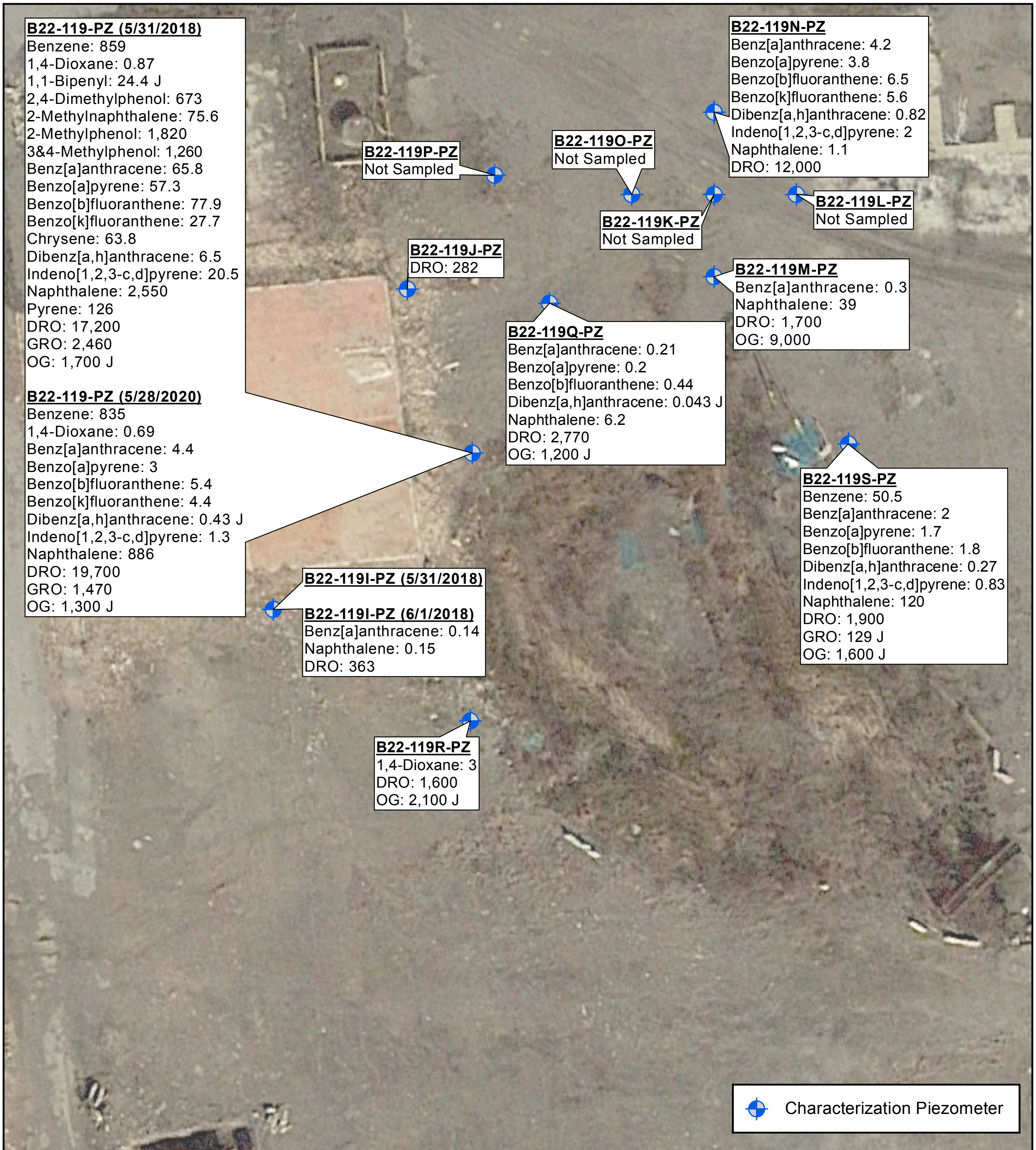


Parcel B6
Parcel B16
Parcel B21
Parcel B22
Parcel B6
Parcel B14
TM11-PZM007
VOC
SVOC
1,4-Dioxane: 2.1
Naphthalene: 4.6
TPH
DRO: 658
PCB
Inorganic
TM13-PZM007
VOC
SVOC
Benz[a]anthracene: 0.073 J
Naphthalene: 23.3
Pentachlorophenol: 1.1 J
TPH
DRO: 264 J
PCB
Dichlorobiphenyl: 0.145
Trichlorobiphenyl: 0.542
Tetrachlorobiphenyl: 0.062
PCBs (total): 0.748
Inorganic
Vanadium (T): 135
TM15-PZM011
VOC
SVOC
Benz[a]anthracene: 0.04 J
Naphthalene: 29.5
TPH
DRO: 4,180
PCB
Inorganic
Arsenic (T): 12.8
TM15-PZM007
VOC
SVOC
1,1-Biphenyl: 3.6
Benz[a]anthracene: 0.078 J
Naphthalene: 113
Pentachlorophenol: 1.0 J
TPH
DRO: 1,870
GRO: 86.6 J
PCB
Inorganic
Thallium (T): 9.3 J
Vanadium (T): 806
FM-005-PZS
VOC
SVOC
1,4-Dioxane: 0.94
Naphthalene: 3.0
TPH
DRO: 4,480
Inorganic
Vanadium (D): 731
FM-006-PZS
VOC
SVOC
TPH
DRO: 410 J
Inorganic
Manganese (D): 1,900
Thallium (D): 4.7 J
FM-007-PZS
VOC
Chloroform: 0.67 J
SVOC
TPH
DRO: 131
Inorganic
Iron (D): 31,200
Manganese (D): 503
TM09-PZM007
VOC
SVOC
1,4-Dioxane: 1.9
Naphthalene: 6.2
TPH
DRO: 2,580
PCB
Inorganic
Vanadium (T): 217
FM-004-PZS
VOC
SVOC
1,4-Dioxane: 10.3
Benz[a]anthracene: 0.11
Naphthalene: 0.2
TPH
DRO: 3,380 J
Inorganic
Manganese (D): 2,460
FM-013-PZS
VOC
Chloroform: 0.87 J
SVOC
1,4-Dioxane: 0.85
Naphthalene: 0.23
TPH
DRO: 1,020 J
Inorganic
Cobalt (D): 32.2
Iron (D): 243,000
Manganese (D): 11,400
(T) = Total Metals
(D) = Dissolved Metals
Piezometer
Monitoring Well
Proposed Site
Proposed Building
Parcel Boundary
Sub-Parcel B22-2 Logistics Center III
Groundwater PAL Exceedances (ug/L)
November 5, 2020
Figure
GW1
N
ARM Group LLC
Engineers and Scientists
0
125
250
500
Feet
Tradepoint Atlantic
Sparrows Point
Baltimore County, MD
ARM Project 20010222


B22-119K-SB-5
B22-119K-SB-9
B22-119K-SB-15
B22-119J-SB-5
B22-119J-SB-10
B22-119E-SB-5
B22-119E-SB-10
Benzo[a]pyrene: 8.6
Naphthalene: 36.3
B22-119E-SB-15
Benzo[a]pyrene: 7.7
Naphthalene: 131
B22-119-SB-1
B22-119-SB-9
Naphthalene: 32.8
B22-119-SB-10
Benzo[a]pyrene: 84.9
Naphthalene: 2,040
NAPL Observed
B22-119C-SB-5
B22-119C-SB-9.5
B22-119A-SB-5
B22-119A-SB-9
B22-119-SB-5
B22-119-SB (7-10)
NAPL Observed
B22-119-SB-15
Banzo[a]pyrene: 2.7
B22-119D-SB-5
B22-119D-SB-9
B22-119B-SB-5
B22-119B-SB-9.5
Benzo[a]pyrene: 6.9
B22-119B-SB-15
OG: 35,800
B22-119G-SB-5
Benzo[a]pyrene: 6.9
B22-119G-SB-10
B22-119G-SB-15
B22-119H-SB-5
B22-119H-SB-11
Benz[a]anthracene: 305
Benzo[a]pyrene: 252
Benzo[b]fluoranthene: 409
Dibenz[a,h]anthracene: 26.1
Indeno[1,2,3-c,d]pyrene: 61.4
Naphthalene: 47.1
B22-119H-SB-14
Benzo[a]pyrene: 2.7
B22-174-SB-1
B22-174-SB-4
B22-119I-SB-5
Benzo[a]pyrene: 7
B22-119I-SB-10
B22-119I-SB-15
B22-119F-SB-5
B22-119F-SB-10
Benzo[a]pyrene: 10.3
B22-119F-SB-15
B22-121-SB-1
B22-121-SB-9
B22-121-SB-10
B22-120-SB-1
B22-120-SB-8
Characterization Soil Boring
Phase II Soil Boring
Parcel B22 - PORI Lagoon Soil Borings
Organics Soil PAL Exceedances (mg/kg)
November 5, 2020
Figure
7a
N
ARM Group LLC
Engineers and Scientists
0 12.5 25 50
Feet
Tradepoint Atlantic
Sparrows Point
Baltimore County, MD
ARM Project 20010222



B22-TP-4-1
DRO: 17,200
OG: 92,100
B22-TP-4-3
Benzo[a]pyrene: 11
DRO: 46,900
OG: 198,000
B22 TP 1-12
DRO: 14,800
OG: 32,100
B22-TP-3-1
Benzo[a]pyrene: 3.2
DRO: 18,800
OG: 113,000
B22-TP-3-3
DRO: 18,800
OG: 119,000
B22-TP-3-5
OG: 63,200
B22 TP 2-12
DRO: 23,700
OG: 44,100
B22-TP-5-1
DRO: 18,400
OG: 170,000
B22-TP-5-3
DRO: 9,220
OG: 61,600
B22-TP-5-5
Benzo[a]pyrene: 4.9
DRO: 26,800
OG: 163,000
B22-TP-2-1
Benzo[a]pyrene: 2.2
DRO: 29,600
OG: 116,000
B22-TP-2-3
DRO: 18,400
OG: 103,000
B22-TP-2-5
DRO: 8,300
OG: 38,600
B22-TP-6-1
DRO: 7,070
OG: 97,400
B22-TP-6-3
OG: 91,900
B22-TP-6-5
OG: 8,720
B22-TP-1-1
DRO: 6,380
OG: 41,700
B22-TP-1-3
Benzo[a]pyrene: 2.2
DRO: 27,600
OG: 77,900
B22-TP-1-5
OG: 40,500
Characterization Test Pit
Sample depths for the June 2018 test pits (B22 TP 1 and B22 TP 2) are measured in reference to the surrounding ground surface at the top of the PORI Lagoon. The remaining sample depths for the June 2020 test pits (B22-TP-1 through B22-TP-6) are in reference to the top of the sediments.
Parcel B22 - PORI Lagoon Test Pits
Organics Soil PAL Exceedances (mg/kg)
November 5, 2020
Figure
7b
N
ARM Group LLC
Engineers and Scientists
0 12.5 25 50
Feet
Tradepoint Atlantic
Sparrows Point
Baltimore County, MD
ARM Project 20010222

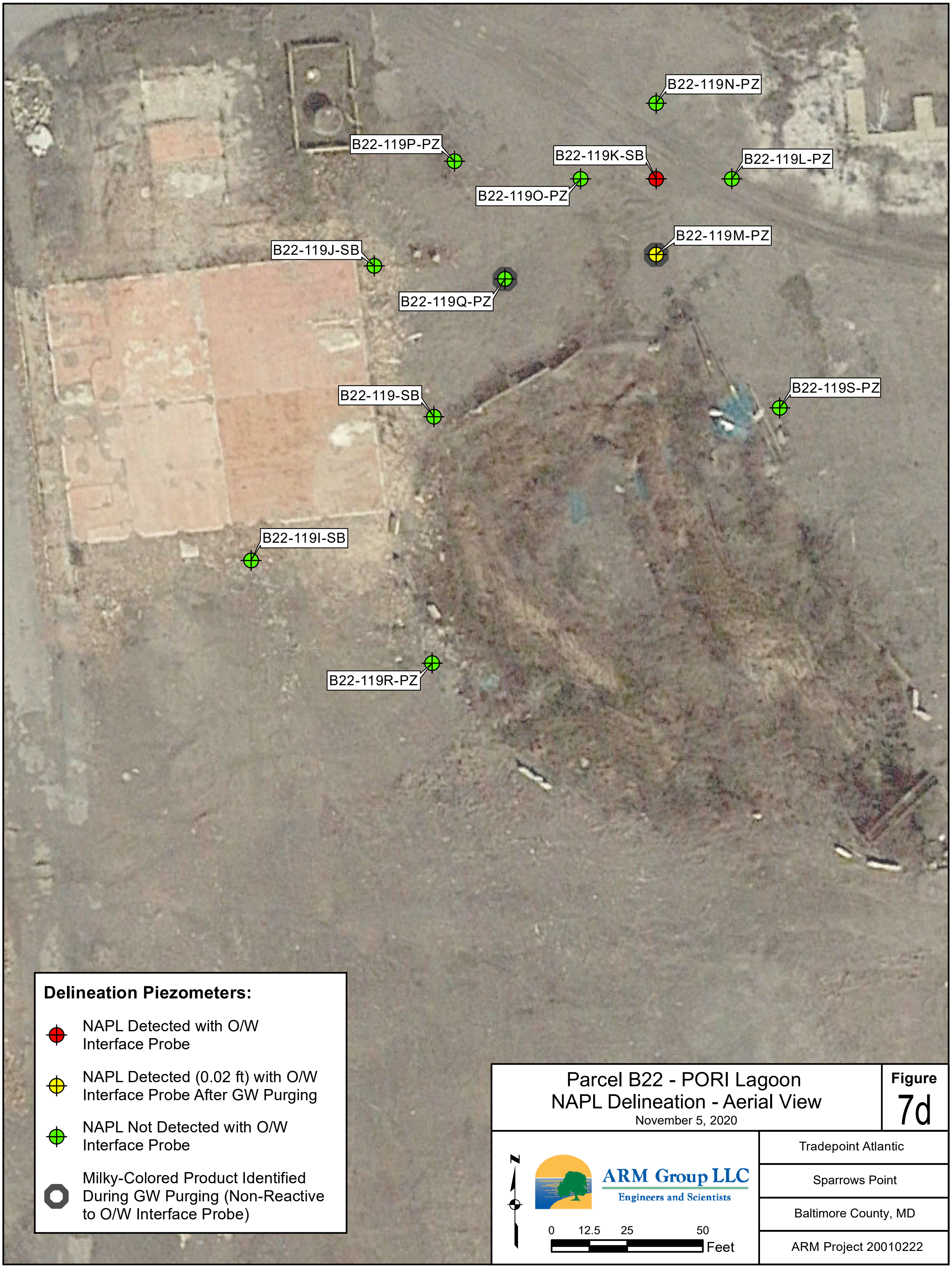


Parcel B22 - PORI Lagoon Piezometers
Organics GW PAL Exceedances (ug/L)
November 5, 2020

Figure 7c

ARM Group LLC
Engineers and Scientists

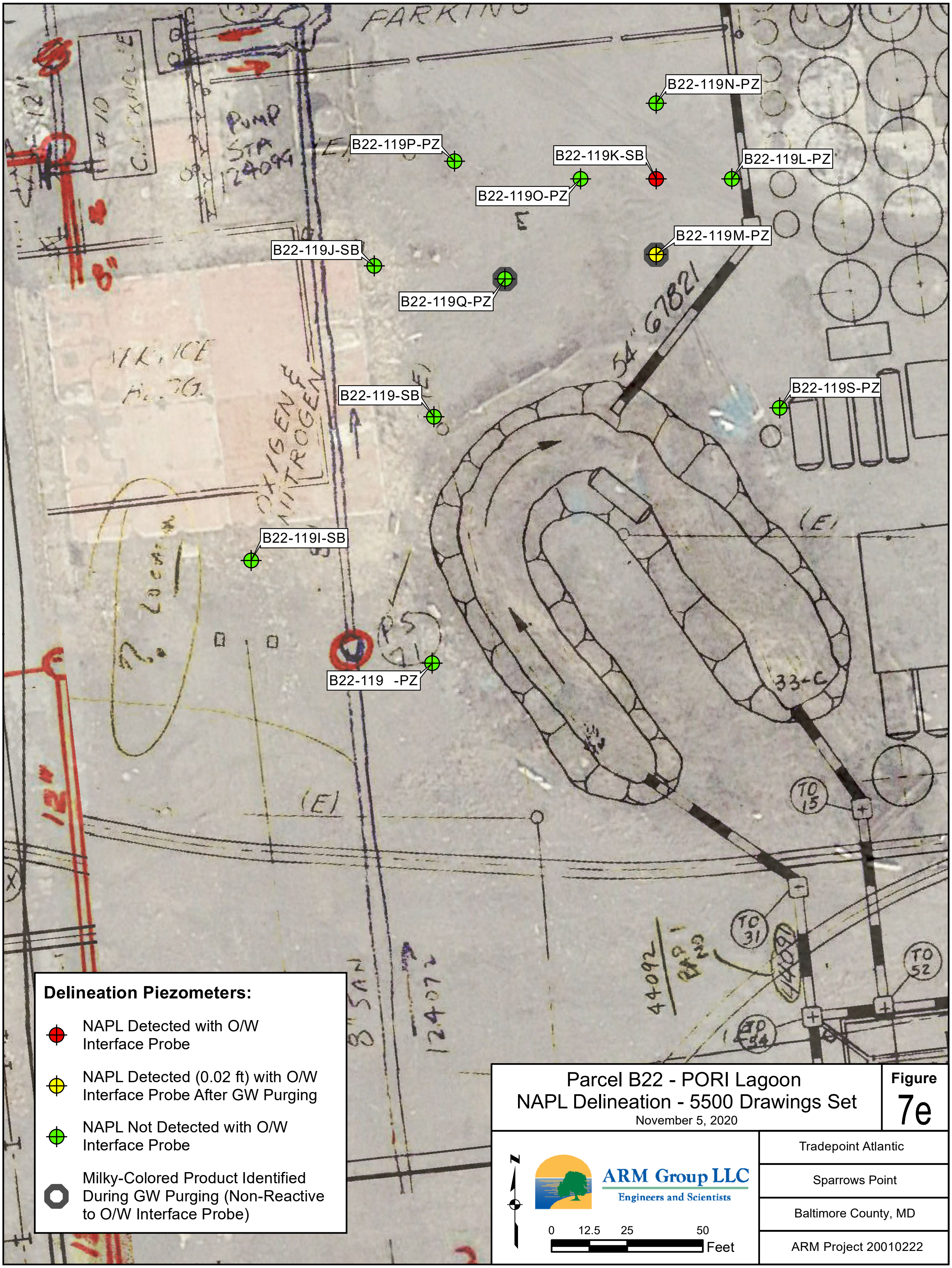
Tradepoint Atlantic
Sparrows Point
Baltimore County, MD
ARM Project 20010222



Parcel B22 - PORI Lagoon
NAPL Delineation - Aerial View
November 5, 2020

Figure 7d

Tradepoint Atlantic	
Sparrows Point	
Baltimore County, MD	
ARM Project 20010222	

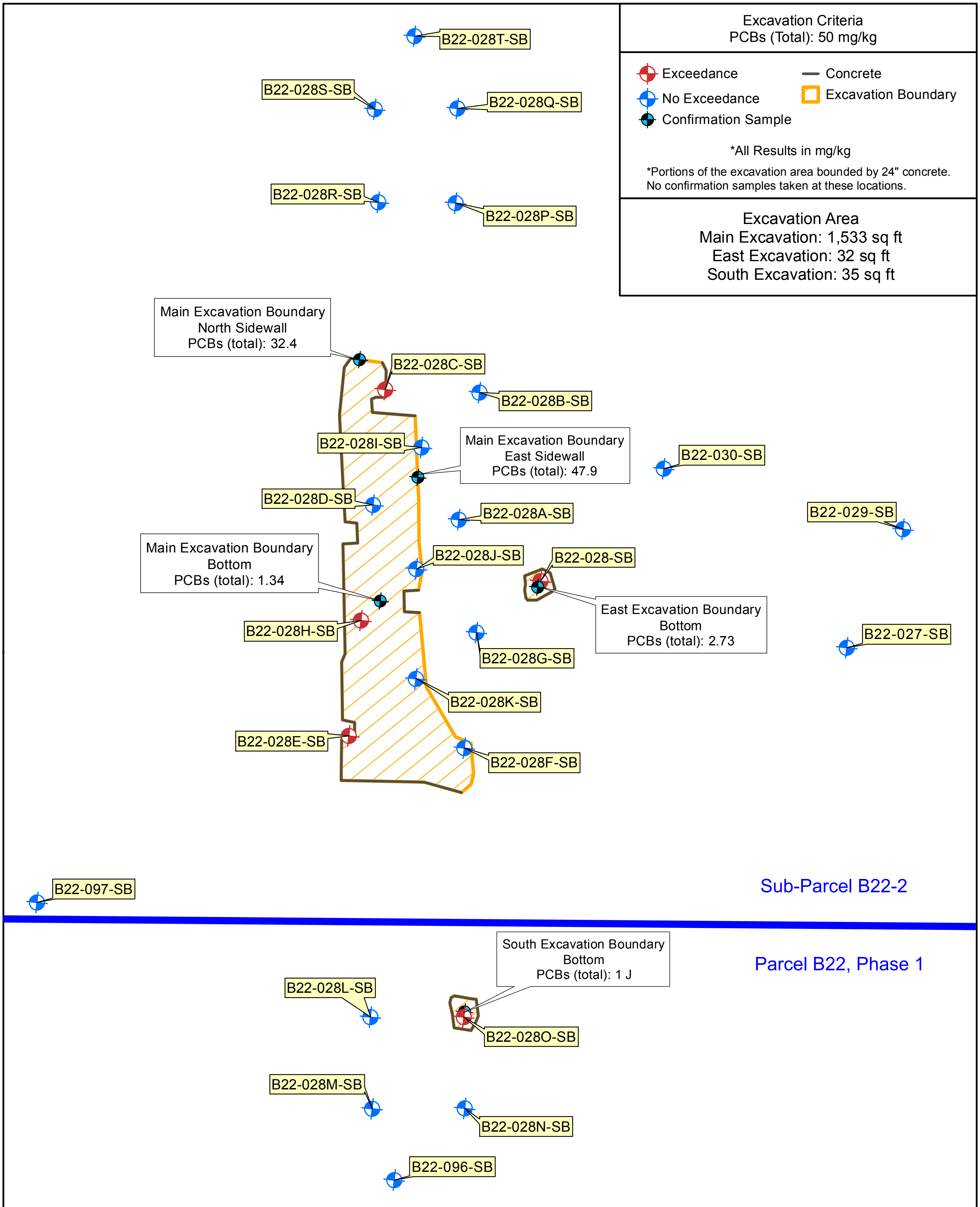


Parcel B22 - PORI Lagoon
NAPL Delineation - 5500 Drawings Set
November 5, 2020

Figure 7e

ARM Group LLC
Engineers and Scientists

Tradepoint Atlantic
Sparrows Point
Baltimore County, MD
ARM Project 20010222



ARM Group LLC
Engineers and Scientists

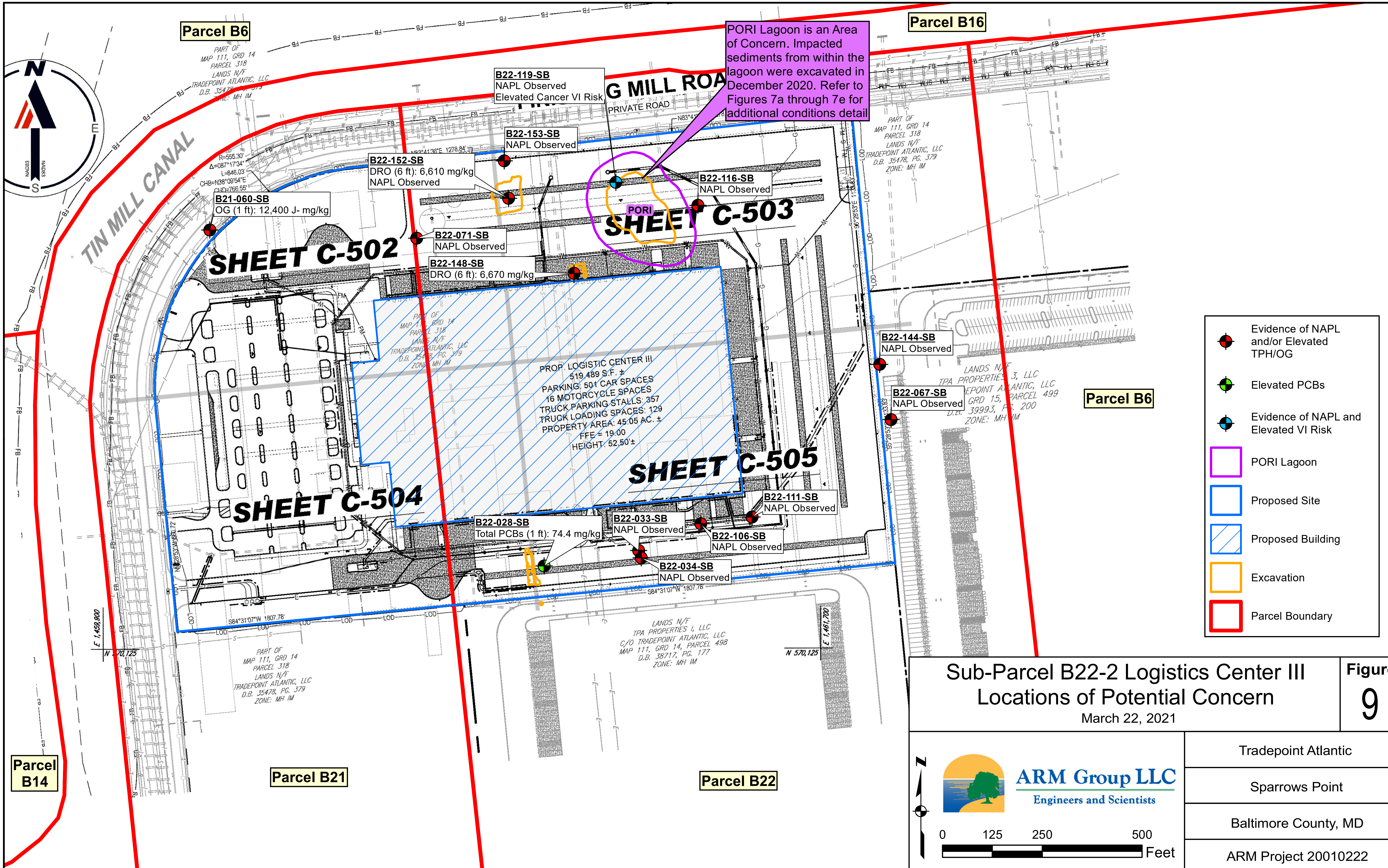
B22-028-SB PCB Delineation Samples and Excavation Boundaries

November 5, 2020

Tradepoint Atlantic
ARM Project 20010222

Sparrows Point
Baltimore County, MD

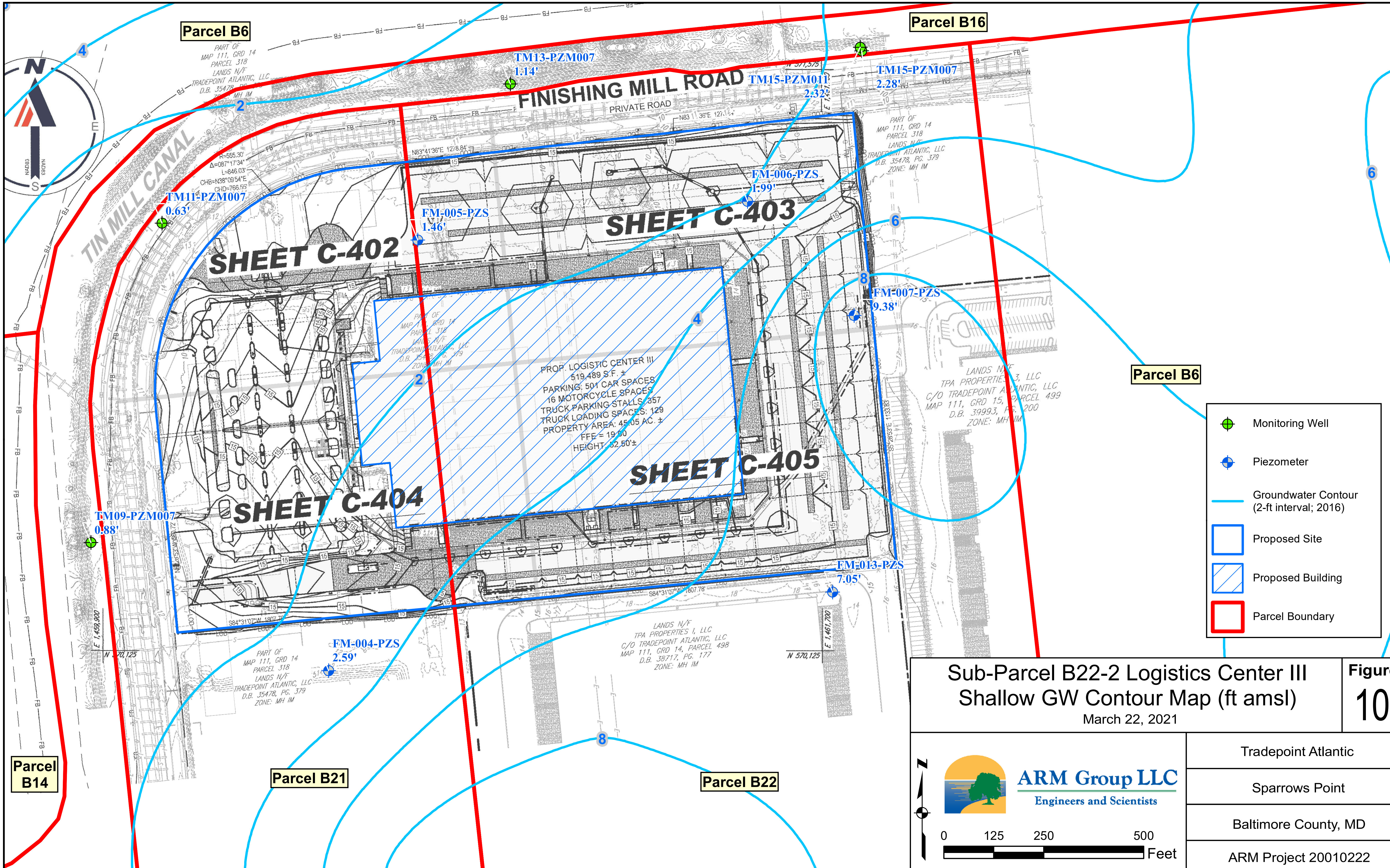
Figure
8



Sub-Parcel B22-2 Logistics Center III
Locations of Potential Concern
March 22, 2021

Figure 9

Tradepoint Atlantic
Sparrows Point
Baltimore County, MD
ARM Project 20010222



Parcel B6
Parcel B16
Parcel B6
Parcel B14
Parcel B21
Parcel B22
FINISHING MILL ROAD
PRIVATE ROAD
TIN MILL CANAL
SHEET C-402
SHEET C-403
SHEET C-404
SHEET C-405
TM13-PZM007
1.14'
TM15-PZM011
2.32'
TM15-PZM007
2.28'
TM11-PZM007
0.63'
FM-005-PZS
1.46'
FM-006-PZS
1.99'
FM-007-PZS
9.38'
TM09-PZM007
0.88'
FM-013-PZS
7.05'
FM-004-PZS
2.59'
PROP. LOGISTIC CENTER III
519,489 S.F. ±
PARKING: 501 CAR SPACES
16 MOTORCYCLE SPACES
TRUCK PARKING STALLS: 357
TRUCK LOADING SPACES: 129
PROPERTY AREA: 45.05 AC. ±
FFE = 19.00
HEIGHT: 52.50'±
Monitoring Well
Piezometer
Groundwater Contour
(2-ft interval; 2016)
Proposed Site
Proposed Building
Parcel Boundary
Sub-Parcel B22-2 Logistics Center III
Shallow GW Contour Map (ft amsl)
March 22, 2021
Figure
10
ARM Group LLC
Engineers and Scientists
0
125
250
500
Feet
Tradepoint Atlantic
Sparrows Point
Baltimore County, MD
ARM Project 20010222

TABLES

Table 1 - Sub-Parcel B22-2
Summary of Organics Detected in Soil

Parameter	Units	PAL	B21-013-SB-3.5 9/5/2018	B21-013-SB-5 9/5/2018	B21-014-SB-2* 7/23/2018	B21-014-SB-8* 7/23/2018	B21-019-SB-2* 7/24/2018	B21-019-SB-7* 7/24/2018	B21-020-SB-4* 9/6/2018	B21-020-SB-5* 9/6/2018	B21-021-SB-1* 7/24/2018	B21-021-SB-5* 7/24/2018	B21-022-SB-1.5* 7/23/2018	B21-022-SB-9* 7/23/2018	B21-023-SB-2* 7/23/2018	B21-023-SB-5* 7/23/2018	B21-024-SB-2* 7/23/2018	B21-024-SB-5* 7/23/2018	B21-032-SB-1 7/25/2018	B21-032-SB-5 7/25/2018	B21-033-SB-2.5* 9/6/2018
Volatile Organic Compounds																					
1,1,1-Trichloroethane	mg/kg	36,000	N/A	N/A	N/A	**0.02**	0.0047 U	0.0049 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,1,2-Trichloro-1,2,2-Trifluoroethane	mg/kg	170,000	N/A	N/A	N/A	0.046 U	0.047 U	0.049 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,1-Dichloroethane	mg/kg	16	N/A	N/A	N/A	**0.0019 J**	0.0047 U	0.0049 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,1-Dichloroethene	mg/kg	1,000	N/A	N/A	N/A	0.0046 U	0.0047 U	0.0049 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2,3-Trichlorobenzene	mg/kg	930	N/A	N/A	N/A	0.0046 U	0.0047 U	0.0049 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dichloroethane	mg/kg	2	N/A	N/A	N/A	**0.0011 J**	0.0047 U	0.0049 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dichloroethene (Total)	mg/kg	2,300	N/A	N/A	N/A	0.0092 U	0.0093 U	0.0098 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-Butanone (MEK)	mg/kg	190,000	N/A	N/A	N/A	**0.0086 J**	0.0093 U	**0.0091 J**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-Hexanone	mg/kg	1,300	N/A	N/A	N/A	0.0092 U	0.0093 U	0.0098 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4-Methyl-2-pentanone (MIBK)	mg/kg	56,000	N/A	N/A	N/A	0.0092 U	0.0093 U	0.0098 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Acetone	mg/kg	670,000	N/A	N/A	N/A	**0.45 J**	**0.13**	**0.25**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzene	mg/kg	5.1	N/A	N/A	N/A	0.0046 U	0.0047 U	0.0049 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Carbon tetrachloride	mg/kg	2.9	N/A	N/A	N/A	**0.0033 J**	0.0047 U	0.0049 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chloroform	mg/kg	1.4	N/A	N/A	N/A	0.0046 U	0.0047 U	0.0049 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	mg/kg	2,300	N/A	N/A	N/A	0.0046 U	0.0047 U	0.0049 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cyclohexane	mg/kg	27,000	N/A	N/A	N/A	0.0092 U	0.0093 U	0.0098 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ethylbenzene	mg/kg	25	N/A	N/A	N/A	0.0046 U	0.0047 U	0.0049 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Isopropylbenzene	mg/kg	9,900	N/A	N/A	N/A	0.0046 U	0.0047 U	0.0049 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Methyl Acetate	mg/kg	1,200,000	N/A	N/A	N/A	**0.084**	**0.0042 J**	0.049 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Styrene	mg/kg	35,000	N/A	N/A	N/A	0.0046 U	0.0047 U	0.0049 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tetrachloroethene	mg/kg	100	N/A	N/A	N/A	0.0046 U	0.0047 U	0.0049 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Toluene	mg/kg	47,000	N/A	N/A	N/A	0.0046 U	0.0047 U	0.0049 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
trans-1,2-Dichloroethene	mg/kg	23,000	N/A	N/A	N/A	0.0046 U	0.0047 U	0.0049 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Trichloroethene	mg/kg	6	N/A	N/A	N/A	**0.012**	0.0047 U	0.0049 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vinyl chloride	mg/kg	1.7	N/A	N/A	N/A	0.0046 U	0.0047 U	0.0049 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Xylenes	mg/kg	2,800	N/A	N/A	N/A	0.014 U	0.014 U	0.015 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Semi-Volatile Organic Compounds^																					
1,1-Biphenyl	mg/kg	200	**0.42 J**	0.69 U	0.069 U	0.72 U	0.071 U	0.072 U	**0.021 J**	**0.032 J**	0.074 U	0.074 U	0.69 U	0.069 U	0.071 U	0.072 U	**0.042 J**	**0.015 J**	0.75 U	0.79 U	**0.015 J**
1,2,4,5-Tetrachlorobenzene	mg/kg	350	0.81 U	0.69 U	0.069 U	0.72 U	0.071 U	0.072 U	0.07 U	0.067 U	0.074 U	0.074 U	0.69 U	0.069 U	0.071 U	0.072 U	0.075 U	0.067 U	0.75 U	0.79 U	0.07 U
2,4-Dimethylphenol	mg/kg	16,000	0.81 U	0.69 U	0.069 U	0.72 U	0.071 U	0.072 U	0.07 U	0.067 U	0.074 U	0.074 U	0.69 U	0.069 U	0.071 U	0.072 U	0.075 U	0.067 U	0.75 U	0.79 U	0.07 U
2-Chloronaphthalene	mg/kg	60,000	0.81 U	0.69 U	0.069 U	0.72 U	0.071 U	0.072 U	0.07 U	0.067 U	0.074 U	0.074 U	0.69 U	0.069 U	0.071 U	0.072 U	0.075 U	0.067 U	0.75 U	0.79 U	0.07 U
2-Methylnaphthalene	mg/kg	3,000	**0.1**	**0.017**	**0.0022 J**	**0.32**	**0.034**	**0.011**	**0.053**	**0.044**	**0.088**	**0.0058 J**	**0.089**	**0.0031 J**	**0.0016 J**	0.0073 U	**0.26**	**0.051**	**0.053**	**0.23**	**0.08**
2-Methylphenol	mg/kg	41,000	0.81 U	0.69 U	0.069 U	0.72 U	0.071 U	0.072 U	0.07 U	0.067 U	0.074 U	0.074 U	0.69 U	0.069 U	0.071 U	0.072 U	0.075 U	0.067 U	0.75 U	0.79 U	0.07 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	1.6 U	1.4 U	0.14 U	1.4 U	0.14 U	0.14 U	0.14 U	0.13 U	0.15 U	0.15 U	1.4 U	0.14 U	0.14 U	0.14 U	0.15 U	0.13 U	1.5 U	1.6 U	0.14 U
3,3'-Dichlorobenzidine	mg/kg	5.1	0.81 U	0.69 U	0.069 U	0.72 U	0.071 U	0.072 U	0.07 U	0.067 U	0.074 U	0.074 U	0.69 U	0.069 U	0.071 U	0.072 U	0.075 U	0.067 U	0.75 U	0.79 U	0.07 U
4-Nitroaniline	mg/kg	110	2 U	1.7 U	0.17 U	1.8 U	0.18 U	0.18 U	0.18 U	0.17 U	0.19 U	0.19 U	1.7 U	0.17 U	0.18 U	0.18 U	0.19 U	0.17 U	1.9 U	2 U	0.18 U
Acenaphthene	mg/kg	45,000	**0.1 J**	**0.0035 J**	0.0069 U	**0.02**	**0.00091 J**	**0.0019 J**	**0.014**	**0.018**	**0.025**	0.0074 U	**0.22**	**0.0011 J**	0.0071 U	0.0073 U	**0.11**	**0.094**	**0.1**	**1.5**	**0.011**
Acenaphthylene	mg/kg	45,000	**0.11**	**0.062**	0.0069 U	**0.057**	0.0072 U	0.0073 U	**0.012**	**0.015**	**0.1**	0.0074 U	**0.11**	0.0068 U	0.0071 U	0.0073 U	**0.019**	**0.027**	**0.044**	0.0079 U	**0.037**
Acetophenone	mg/kg	120,000	0.81 U	0.69 U	0.069 U	0.72 U	0.071 U	0.072 U	**0.025 J**	**0.021 J**	0.074 U	0.074 U	0.69 U	0.069 U	0.071 U	0.072 U	**0.08**	0.067 U	0.75 U	0.79 U	0.07 U
Anthracene	mg/kg	230,000	**0.36**	**0.094**	0.0069 U	**0.11**	0.0072 U	**0.00096 J**	**0.028**	**0.026**	**0.26**	0.0074 U	**0.11**	**0.0014 J**	0.0071 U	0.0073 U	**0.05**	**0.088**	**0.066**	**0.26**	**0.064**
Benz[a]anthracene	mg/kg	21	**0.97 J**	**0.14 J**	0.0069 U	**0.71**	0.0072 U	0.0073 U	**0.15**	**0.14**	**0.58**	**0.0022 J**	**0.66**	**0.0085**	0.0071 U	**0.0017 J**	**0.32**	**0.55**	**0.84**	**2.4**	**0.44**
Benzaldehyde	mg/kg	120,000	0.81 UJ	0.69 UJ	0.069 U	0.72 U	0.071 U	0.072 U	0.07 U	0.067 U	0.074 U	0.074 U	0.69 U	0.069 U	0.071 U	0.072 U	**0.11**	0.067 U	0.75 R	0.79 R	0.07 U
Benzo[a]pyrene	mg/kg	2.1	**0.84 J**	**0.16 J**	**0.00059 J**	**0.66**	0.0072 U	0.0073 U	**0.21**	**0.2**	**0.46**	**0.0012 J**	**0.98**	**0.008**	0.0071 U	**0.0014 J**	**0.54**	**0.65**	**1.4**	**5.3**	**0.34**
Benzo[b]fluoranthene	mg/kg	21	**2 J**	**0.31 J**	**0.0012 J**	**1.7**	0.0072 U	**0.0015 J**	**0.6**	**0.54**	**1.1**	**0.003 J**	**2.2**	**0.02**	0.0071 U	**0.0024 J**	**1**	**1.1**	**2.4**	**6.3**	**0.89**
Benzo[g,h,i]perylene	mg/kg		**0.31 J**	**0.15 J**	0.0069 U	**0.31**	0.0072 U	0.0073 U	**0.12**	**0.11**	**0.077**	0.0074 U	**0.61**	**0.007**	0.0071 U	**0.0014 J**	**0.46**	**0.45**	**0.64**	**2.6**	**0.23**
Benzo[k]fluoranthene	mg/kg	210	**1.5 J**	**0.24 J**	0.0069 U	**1.3**	0.0072 U	0.0073 U	**0.49**	**0.44**	**0.93**	**0.0026 J**	**1.9**	**0.017**	0.0071 U	0.0073 U	**0.88**	**0.35**	**0.55**	**2.1**	**0.72**
bis(2-Ethylhexyl)phthalate	mg/kg	160	0.81 U	0.69 U	**0.027 J**	0.72 U	**0.017 J**	**0.017 J**	0.07 U	0.067 U	**0.018 J**	**0.016 J**	0.69 U	**0.026 J**	**0.019 J**	**0.016 J**	**0.026 J**	**0.017 J**	0.75 U	0.79 U	0.07 U
Carbazole	mg/kg		**4.6**	0.69 U	0.069 U	**0.25 J**	0.071 U	0.072 U	**0.035 J**	**0.028 J**	**0.019 J**	0.074 U	0.69 U	0.069 U	0.071 U	0.072 U	**0.053 J**	**0.078**	0.75 U	0.79 U	**0.07 J**
Chrysene	mg/kg	2,100	**0.74 J**	**0.13 J**	**0.00076 J**	**0.73**	**0.00043 J**	**0.0013 J**	**0.25**	**0.22**	**0.47**	**0.0017 J**	**0.74**	**0.012**	**0.00043 J**	**0.0013 J**	**0.37**	**0.65**	**0.95**	**2.1**	**0.57**
Dibenz[a,h]anthracene	mg/kg	2.1	**0.14 J**	**0.037 J**	0.0069 U	**0.16**	0.0072 U	0.0073 U	**0.042**	**0.04**	**0.038**	0.0074 U	**0.23**	**0.0019 J**	0.0071 U	0.0073 U	**0.14**	**0.16**	**0.32**	**1.2**	**0.087**
Diethylphthalate	mg/kg	660,000	0.81 U	0.69 U	0.069 U	0.72 U	0.071 U	0.072 U	0.07 U	0.067 U	0.074 U	0.074 U	0.69 U	0.069 U	0.071 U	0.072 U	0.075 U	0.067 U	0.75 U	0.79 U	0.07 U
Di-n-butylphthalate	mg/kg	82,000	0.81 U	0.69 U	0.069 U	0.72 U	0.071 U	0.072 U	0.07 U	0.067 U	0.074 U	0.074 U	0.69 U	0.069 U	0.071 U	0.072 U	0.075 U	0.067 U	0.75 U	0.79 U	0.07 U
Di-n-ocytlphthalate	mg/kg	8,200	0.81 U	0.69 U	0.069 U	0.72 U	0.071 U	0.072 U	0.07 U	0.067 U	0.074 U	0.074 U	0.69 U	0.069 U	0.071 U	0.072 U	0.075 U	0.067 U	0.75 U	0.79 U	0.07 U
Fluoranthene	mg/kg	30,000	**1.4**	**0.15**	**0.0016 J**	**0.85**	**0.0026 J**	**0.0067 J**	**0.43**	**0.32**	**1.2**	**0.0026 J**	**0.87**	**0.015**	**0.0012 J**	**0.002 J**	**0.46**	**0.98**	**0.97**	**1.8**	**0.79**
Fluorene	mg/kg	30,000	**0.1**	**0.0069 J**	0.0069 U	**0.026**	0.0072 U	**0.0022 J**	**0.0049 J**	**0.0073**	**0.21**	**0.0017 J**	**0.045**	0.0068 U	0.0071 U	0.0073 U	**0.017**	**0.017**	**0.018**	**0.16**	**0.007 J**
Indeno[1,2,3-c,d]pyrene	mg/kg	21	**0.33 J**	**0.1 J**	0.0069 U	**0.35**	0.0072 U	0.0073 U	**0.14**	**0.13**	**0.1**	0.0074 U	**0.61**	**0.0058 J**	0.0071 U	0.0073 U	**0.41**	**0.45**	**0.68**	**2.8**	**0.24**
Naphthalene	mg/kg	8.6	**0.2 J**	**0.016 J**	**0.0023 J**	**0.24**	0.021 B	**0.4**	**0.12**	**0.13**	**0.35**	**0.12**	**0.18**	**0.0053 J**	**0.0017 J**	**0.004 J**	**0.37**	**0.095**	**0.091 J**	**1.1 J**	**0.14**
N-Nitrosodiphenylamine	mg/kg	470	0.81 U	0.69 U	0.069 U	0.72 U	0.071 U	0.072 U	0.07 U	0.067 U	0.074 U	0.074 U	0.69 U	0.069 U	0.071 U	0.072 U	0.075 U	0.067 U	0.75 U	0.79 U	0.07 U
Pentachlorophenol	mg/kg	4	2 UJ	1.7 UJ	0.17 U	1.8 U	0.18 U	0.18 U	0.18 U	0.17 U	0.19 U	0.19 U	1.7 U	0.17 U	0.18 U	0.18 U	0.19 U	0.17 U	1.9 U	2 U	0.18 U
Phenanthrene	mg/kg		**1.3**	**0.12**	**0.0012 J**	**0.71**	**0.0056 J**	**0.016**	**0.29**	**0.26**	**1.2**	**0.0034 J**	**0.61**	**0.012**	**0.0013 J**	**0.0013 J**	**0.37**	**0.49**	**0.17**	**0.92**	**0.33**
Phenol	mg/kg	250,000	0.81 U	0.69 U	**0.052 J**	0.72 U	0.071 U	0.072 U	**0.022 J**	0.067 U	0.074 U	0.074 U	0.69 U	0.069 U	0.071 U	0.072 U	0.075 U	0.067 U	0.75 U	0.79 U	0.07 U
Pyrene	mg/kg	23,000	**0.98**	**0.12**	**0.0013 J**	**0.66**	**0.0017 J**	**0.0039 J**	**0.26**	**0.23**	**0.89**	**0.0024 J**	**0.7**	**0.011**	0.0071 U	**0.0016 J**	**0.37**	**0.79**	**0.87**	**1.8**	**0.61**
PCBs																					
Aroclor 1242	mg/kg	0.97	0.02 U	N/A	0.017 U	N/A	0.018 U	N/A	0.017 U	N/A	**0.028**	N/A	0.086 U	N/A	0.018 U	N/A	0.093 U	N/A	0.018 U	N/A	0.018 U
Aroclor 1248	mg/kg	0.94	0.02 U	N/A	**0.071**	N/A	0.018 U	N/A	**0.082**	N/A	0.019 U	N/A	0.086 U	N/A	**0.024**	N/A	**0.15**	N/A	0.018 U	N/A	0.018 U
Aroclor 1254	mg/kg	0.97	0.02 U	N/A	0.017 U	N/A	0.018 U	N/A	0.017 U	N/A	0.019 U	N/A	0.086 U	N/A	0.018 U	N/A	0.093 U	N/A	0.018 U	N/A	0.018 U
Aroclor 1260	mg/kg	0.99	0.02 UJ	N/A	0.017 U	N/A	0.018 U	N/A	**0.049**	N/A	0.019 U	N/A	**0.047 J**	N/A	0.018 U	N/A	**0.049 J**	N/A	**3.8**	N/A	0.018 U
Aroclor 1262	mg/kg		0.02 U	N/A	0.017 U	N/A	0.018 U	N/A	0.017 U	N/A	0.019 U	N/A	0.086 U	N/A	0.018 U	N/A	0.093 U	N/A	0.018 U	N/A	0.018 U
Aroclor 1268	mg/kg		**0.12 J**	N/A	0.017 U	N/A	0.018 U	N/A	0.017 U	N/A	0.019 U	N/A	0.086 U	N/A	0.018 U	N/A	0.093 U	N/A	0.018 U	N/A	0.018 U
PCBs (total)	mg/kg	0.97	**0.12 J**	N/A	**0.071 J**	N/A	0.16 U	N/A	**0.13 J**	N/A	**0.028 J**	N/A	0.77 U	N/A	**0.024 J**	N/A	**0.2 J**	N/A	**3.8**	N/A	0.16 U
TPH/Oil & Grease																					
Diesel Range Organics	mg/kg	6,200	**115 J**	**93 J**	**5.6 J**	**62.7**	**16.4**	**37.9**	**182**	**163**	**23.2**	**10.1**	**99.8**	**17**	**8.8**	**5.6 J**	**128**	**54.6**	**114**	**116 J**	**49.6**
Gasoline Range Organics	mg/kg	6,200	13.6 U	16.5 U	11.5 U	12 U	10.5 U	10.4 U	9.1 U	10.2 U	9 U	8.6 U	10.6 U	8.2 U	10.3 U	12.4 U	8.9 U	14.1 U	10.1 U	9.8 U	10.3 U
Oil & Grease	mg/kg	6,200	**2,430 J-**	**3,130 J-**	**122**	**263**	**147**	**252**	**504**	**582**	**491**	**147**	**287**	**105**	**135**	**143**	**211**	**177**	**295 J-**	**488 J-**	**356**

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
^ PAH compounds were analyzed via SIM
Not included in SLRA due to excavation

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.
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 or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this analyte in the sample.

Table 1 - Sub-Parcel B22-2
Summary of Organics Detected in Soil

Parameter	Units	PAL	B21-033-SB-5*	B21-034-SB-3*	B21-034-SB-4*	B21-035-SB-1	B21-035-SB-5	B21-049-SB-1*	B21-049-SB-5*	B21-050-SB-2*	B21-050-SB-8*	B21-053-SB-2*	B21-054-SB-1*	B21-054-SB-5*	B21-059-SB-1*	B21-060-SB-1	B21-060-SB-4	B21-063-SB-1	B21-063-SB-5	B21-064-SB-2.5	B21-064-SB-5	B21-073-SB-1
			9/6/2018	9/6/2018	9/6/2018	7/25/2018	7/25/2018	7/24/2018	7/24/2018	7/24/2018	7/24/2018	9/6/2018	7/24/2018	7/24/2018	9/6/2018	7/25/2018	7/25/2018	9/7/2018	9/7/2018	9/5/2018	9/5/2018	7/25/2018
Volatile Organic Compounds																						
1,1,1-Trichloroethane	mg/kg	36,000	N/A	N/A	N/A	N/A	N/A	N/A	0.0061 U	0.0052 U	0.0061 U	N/A	0.0052 U	N/A	N/A	N/A	0.0039 U	N/A	N/A	N/A	N/A	N/A
1,1,2-Trichloro-1,2,2-Trifluoroethane	mg/kg	170,000	N/A	N/A	N/A	N/A	N/A	N/A	0.061 U	0.052 U	0.061 U	N/A	0.052 U	N/A	N/A	N/A	0.039 UJ	N/A	N/A	N/A	N/A	N/A
1,1-Dichloroethane	mg/kg	16	N/A	N/A	N/A	N/A	N/A	N/A	0.0061 U	0.0052 U	0.0061 U	N/A	0.0052 U	N/A	N/A	N/A	0.0039 U	N/A	N/A	N/A	N/A	N/A
1,1-Dichloroethene	mg/kg	1,000	N/A	N/A	N/A	N/A	N/A	N/A	0.0061 U	0.0052 U	0.0061 U	N/A	0.0052 U	N/A	N/A	N/A	0.0039 U	N/A	N/A	N/A	N/A	N/A
1,2,3-Trichlorobenzene	mg/kg	930	N/A	N/A	N/A	N/A	N/A	N/A	0.0061 U	0.0052 U	0.0061 U	N/A	0.0052 U	N/A	N/A	N/A	0.0039 U	N/A	N/A	N/A	N/A	N/A
1,2-Dichloroethane	mg/kg	2	N/A	N/A	N/A	N/A	N/A	N/A	0.0061 U	0.0052 U	0.0061 U	N/A	0.0052 U	N/A	N/A	N/A	0.0039 U	N/A	N/A	N/A	N/A	N/A
1,2-Dichloroethene (Total)	mg/kg	2,300	N/A	N/A	N/A	N/A	N/A	N/A	0.012 U	0.01 U	0.012 U	N/A	0.01 U	N/A	N/A	N/A	0.0078 U	N/A	N/A	N/A	N/A	N/A
2-Butanone (MEK)	mg/kg	190,000	N/A	N/A	N/A	N/A	N/A	N/A	0.012 U	**0.013**	0.012 U	N/A	**0.0083 J**	N/A	N/A	N/A	0.0078 U	N/A	N/A	N/A	N/A	N/A
2-Hexanone	mg/kg	1,300	N/A	N/A	N/A	N/A	N/A	N/A	0.012 U	0.01 U	0.012 U	N/A	0.01 U	N/A	N/A	N/A	0.0078 U	N/A	N/A	N/A	N/A	N/A
4-Methyl-2-pentanone (MIBK)	mg/kg	56,000	N/A	N/A	N/A	N/A	N/A	N/A	0.012 U	0.01 U	0.012 U	N/A	0.01 U	N/A	N/A	N/A	0.0078 U	N/A	N/A	N/A	N/A	N/A
Acetone	mg/kg	670,000	N/A	N/A	N/A	N/A	N/A	N/A	**0.25**	**0.39**	**0.15**	N/A	**0.27**	N/A	N/A	N/A	**0.15**	N/A	N/A	N/A	N/A	N/A
Benzene	mg/kg	5.1	N/A	N/A	N/A	N/A	N/A	N/A	0.0061 U	0.0052 U	0.0061 U	N/A	0.0052 U	N/A	N/A	N/A	0.0039 U	N/A	N/A	N/A	N/A	N/A
Carbon tetrachloride	mg/kg	2.9	N/A	N/A	N/A	N/A	N/A	N/A	0.0061 U	0.0052 U	0.0061 U	N/A	0.0052 U	N/A	N/A	N/A	0.0039 U	N/A	N/A	N/A	N/A	N/A
Chloroform	mg/kg	1.4	N/A	N/A	N/A	N/A	N/A	N/A	0.0061 U	0.0052 U	0.0061 U	N/A	0.0052 U	N/A	N/A	N/A	0.0039 U	N/A	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	mg/kg	2,300	N/A	N/A	N/A	N/A	N/A	N/A	0.0061 U	0.0052 U	0.0061 U	N/A	0.0052 U	N/A	N/A	N/A	0.0039 U	N/A	N/A	N/A	N/A	N/A
Cyclohexane	mg/kg	27,000	N/A	N/A	N/A	N/A	N/A	N/A	0.012 U	0.01 U	0.012 U	N/A	0.01 U	N/A	N/A	N/A	0.0078 UJ	N/A	N/A	N/A	N/A	N/A
Ethylbenzene	mg/kg	25	N/A	N/A	N/A	N/A	N/A	N/A	0.0061 U	0.0052 U	0.0061 U	N/A	0.0052 U	N/A	N/A	N/A	0.0039 U	N/A	N/A	N/A	N/A	N/A
Isopropylbenzene	mg/kg	9,900	N/A	N/A	N/A	N/A	N/A	N/A	0.0061 U	0.0052 U	0.0061 U	N/A	0.0052 U	N/A	N/A	N/A	0.0039 U	N/A	N/A	N/A	N/A	N/A
Methyl Acetate	mg/kg	1,200,000	N/A	N/A	N/A	N/A	N/A	N/A	0.061 U	0.052 U	**0.13**	N/A	**0.07**	N/A	N/A	N/A	0.039 U	N/A	N/A	N/A	N/A	N/A
Styrene	mg/kg	35,000	N/A	N/A	N/A	N/A	N/A	N/A	0.0061 U	0.0052 U	0.0061 U	N/A	0.0052 U	N/A	N/A	N/A	0.0039 U	N/A	N/A	N/A	N/A	N/A
Tetrachloroethene	mg/kg	100	N/A	N/A	N/A	N/A	N/A	N/A	0.0061 U	0.0052 U	0.0061 U	N/A	0.0052 U	N/A	N/A	N/A	0.0039 U	N/A	N/A	N/A	N/A	N/A
Toluene	mg/kg	47,000	N/A	N/A	N/A	N/A	N/A	N/A	0.0061 U	0.0052 U	0.0061 U	N/A	0.0052 U	N/A	N/A	N/A	0.0039 U	N/A	N/A	N/A	N/A	N/A
trans-1,2-Dichloroethene	mg/kg	23,000	N/A	N/A	N/A	N/A	N/A	N/A	0.0061 U	0.0052 U	0.0061 U	N/A	0.0052 U	N/A	N/A	N/A	0.0039 U	N/A	N/A	N/A	N/A	N/A
Trichloroethene	mg/kg	6	N/A	N/A	N/A	N/A	N/A	N/A	0.0061 U	0.0052 U	0.0061 U	N/A	0.0052 U	N/A	N/A	N/A	0.0039 U	N/A	N/A	N/A	N/A	N/A
Vinyl chloride	mg/kg	1.7	N/A	N/A	N/A	N/A	N/A	N/A	0.0061 U	0.0052 U	0.0061 U	N/A	0.0052 U	N/A	N/A	N/A	0.0039 U	N/A	N/A	N/A	N/A	N/A
Xylenes	mg/kg	2,800	N/A	N/A	N/A	N/A	N/A	N/A	0.018 U	0.016 U	0.018 U	N/A	0.016 U	N/A	N/A	N/A	0.012 U	N/A	N/A	N/A	N/A	N/A
Semi-Volatile Organic Compounds^																						
1,1-Biphenyl	mg/kg	200	0.7 U	0.71 U	0.71 U	0.073 U	0.077 U	0.071 U	**0.025 J**	**1.3**	0.08 U	0.69 U	0.083 U	0.073 U	0.071 U	0.69 U	0.72 U	0.072 U	0.069 U	0.71 U	0.72 U	0.071 U
1,2,4,5-Tetrachlorobenzene	mg/kg	350	0.7 U	0.71 U	0.71 U	0.073 U	0.077 U	0.071 U	0.08 U	0.72 U	0.08 U	0.69 U	0.083 U	0.073 U	0.071 U	0.69 U	0.72 U	0.072 U	0.069 U	0.71 U	0.72 U	0.071 U
2,4-Dimethylphenol	mg/kg	16,000	0.7 U	0.71 U	0.71 U	0.073 U	0.077 U	0.071 U	0.08 U	0.72 U	0.08 U	0.69 U	0.083 U	0.073 U	0.071 U	0.69 U	0.72 U	0.072 U	0.069 U	0.71 U	0.72 U	0.071 U
2-Chloronaphthalene	mg/kg	60,000	0.7 U	0.71 U	0.71 U	0.073 U	0.077 U	0.071 U	0.08 U	0.72 U	0.08 U	0.69 U	0.083 U	0.073 U	0.071 U	0.69 U	0.72 U	0.072 U	0.069 U	0.71 U	0.72 U	0.071 U
2-Methylnaphthalene	mg/kg	3,000	**0.22**	**0.47**	**0.84**	**0.0043 J**	0.0078 U	**0.022**	**0.17**	**0.32**	**0.023**	0.071 U	**0.055**	**0.0057 J**	**0.015**	**0.013**	**0.018**	**0.0068 J**	0.0069 U	**0.26**	**0.13**	**0.042**
2-Methylphenol	mg/kg	41,000	0.7 U	0.71 U	0.71 U	0.073 U	0.077 U	0.071 U	0.08 U	0.72 U	0.08 U	0.69 U	0.083 U	0.073 U	0.071 U	0.69 U	0.72 U	0.072 U	0.069 U	0.71 U	0.72 U	0.071 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	1.4 U	1.4 U	1.4 U	0.15 U	0.15 U	0.14 U	0.16 U	1.4 U	0.16 U	1.4 U	0.17 U	0.15 U	0.14 U	1.4 U	1.4 U	0.14 U	0.14 U	1.4 U	1.4 U	0.14 U
3,3'-Dichlorobenzidine	mg/kg	5.1	0.7 U	0.71 U	0.71 U	0.073 U	0.077 U	0.071 U	**0.019 J**	0.72 U	0.08 U	0.69 U	0.083 U	0.073 U	0.071 U	0.69 U	0.72 U	0.072 U	0.069 U	0.71 U	0.72 U	0.071 U
4-Nitroaniline	mg/kg	110	1.7 U	1.8 U	1.8 U	0.18 U	0.19 U	0.18 U	0.2 U	1.8 U	0.2 U	1.7 U	0.21 U	0.18 U	0.18 U	1.7 U	1.8 U	0.18 U	0.17 U	1.8 U	1.8 U	0.18 U
Acenaphthene	mg/kg	45,000	**0.43**	**0.094**	**0.061**	**0.0032 J**	0.0078 U	**0.11**	**0.026**	**0.35**	**0.015**	0.071 U	**0.056**	0.0074 U	**0.001 J**	**0.0022 J**	**0.036**	0.0072 U	0.0069 U	**0.05 J**	**0.018 J**	**0.11**
Acenaphthylene	mg/kg	45,000	**0.025**	**0.14**	**2.3**	**0.0011 J**	0.0078 U	**0.0046 J**	**0.15**	**0.24**	**0.035**	**0.0051 J**	**0.049**	**0.0023 J**	**0.0033 J**	**0.01**	**0.0069 J**	**0.0044 J**	**0.00096 J**	**0.075**	**0.16**	**0.023**
Acetophenone	mg/kg	120,000	0.7 U	0.71 U	0.71 U	0.073 U	0.077 U	0.071 U	0.08 U	0.72 U	0.08 U	0.69 U	0.083 U	0.073 U	0.071 U	0.69 U	0.72 U	0.072 U	0.069 U	0.71 U	0.72 U	0.071 U
Anthracene	mg/kg	230,000	**0.11**	**1.1**	**4.4**	**0.0014 J**	0.0078 U	**0.021**	**0.21**	**1.8**	**0.092**	0.071 U	**0.16**	**0.002 J**	**0.0062 J**	**0.0083**	**0.027**	**0.0092**	**0.0011 J**	**0.24**	**0.23**	**0.083**
Benz[a]anthracene	mg/kg	21	**0.88**	**3.9**	**9.7**	**0.012**	0.0078 U	**0.19**	**0.83**	**4.5**	**0.31**	0.071 U	**0.5**	**0.01**	**0.019**	**0.032**	**0.29 J**	**0.02**	**0.0031 J**	**1.1**	**1.2 J**	**0.49**
Benzaldehyde	mg/kg	120,000	0.7 U	0.71 U	0.71 U	0.073 R	0.077 R	0.071 U	**0.026 J**	0.72 U	0.08 U	0.69 U	**0.022 J**	0.073 U	0.071 U	0.69 R	0.72 R	0.072 UJ	0.069 UJ	0.71 UJ	0.72 UJ	0.071 R
Benzo[a]pyrene	mg/kg	2.1	**1.6**	**2.9**	**8**	**0.027**	**0.0006 J**	**0.4**	**0.86**	**2.9**	**0.31**	**0.0077 J**	**0.49**	**0.013**	**0.016**	**0.068 J**	**0.35 J**	**0.026**	**0.0036 J**	**1.2**	**1 J**	**0.8**
Benzo[b]fluoranthene	mg/kg	21	**2.2**	**6.4**	**13**	**0.034**	0.0078 U	**0.47**	**1.7**	**6.9**	**0.6**	**0.063 J**	**0.71**	**0.025**	**0.039**	**0.2 J**	**0.68 J**	**0.07**	**0.0085**	**2.4 J**	**3 J**	**1**
Benzo[g,h,i]perylene	mg/kg		**0.64**	**0.86**	**3**	**0.026**	0.0078 U	**0.17**	**0.25**	**0.82**	**0.12**	**0.012 J**	**0.31**	**0.0059 J**	**0.0056 J**	**0.056 J**	**0.12 J**	**0.0096**	0.0069 U	**0.4**	**0.44 J**	**0.43**
Benzo[k]fluoranthene	mg/kg	210	**0.68**	**5.2**	**3.8**	**0.011**	0.0078 U	**0.17**	**1.5**	**6**	**0.52**	**0.051 J**	**0.19**	**0.022**	**0.032**	**0.16 J**	**0.23 J**	**0.056**	**0.0069 J**	**0.78 J**	**2.4 J**	**0.31**
bis(2-Ethylhexyl)phthalate	mg/kg	160	0.7 U	0.71 U	0.71 U	0.068 B	0.077 U	**0.025 J**	**0.019 J**	**0.18 J**	**0.019 J**	0.69 U	**0.018 J**	0.073 U	0.071 U	0.69 U	0.72 U	0.072 U	0.069 U	0.71 U	0.72 U	0.055 B
Carbazole	mg/kg		0.7 U	0.71 U	0.71 U	0.073 U	0.077 U	0.071 U	**0.094**	**10.4**	**0.081**	0.69 U	**0.024 J**	0.073 U	0.071 U	0.69 U	0.72 U	0.072 U	0.069 U	0.71 U	0.72 U	**0.03 J**
Chrysene	mg/kg	2,100	**0.89**	**4.3**	**9.4**	**0.014**	**0.0005 J**	**0.18**	**0.78**	**4.1**	**0.3**	0.071 U	**0.48**	**0.013**	**0.02**	**0.08**	**0.35 J**	**0.027**	**0.0037 J**	**1**	**1.1 J**	**0.43**
Dibenz[a,h]anthracene	mg/kg	2.1	**0.46**	**0.44**	**1.2**	**0.0066 J**	0.0078 U	**0.07**	**0.098**	**0.54**	**0.051**	0.071 U	**0.094**	0.0074 U	**0.002 J**	**0.019 J**	**0.048 J**	**0.0034 J**	0.0069 U	**0.21**	**0.18 J**	**0.17**
Diethylphthalate	mg/kg	660,000	0.7 U	0.71 U	0.71 U	0.073 U	0.077 U	0.071 U	0.08 U	0.72 U	0.08 U	0.69 U	0.083 U	0.073 U	0.071 U	0.69 U	0.72 U	0.072 U	0.069 U	0.71 U	0.72 U	0.071 U
Di-n-butylphthalate	mg/kg	82,000	0.7 U	0.71 U	0.71 U	0.073 U	0.077 U	0.071 U	0.08 U	0.72 U	0.08 U	0.69 U	0.083 U	0.073 U	**2.6**	0.69 U	0.72 U	0.072 U	0.069 U	0.71 U	0.72 U	0.017 B
Di-n-ocytlphthalate	mg/kg	8,200	0.7 U	0.71 U	0.71 U	0.073 U	0.077 U	0.071 U	0.08 U	0.72 U	0.08 U	0.69 U	0.083 U	0.073 U	0.071 U	0.69 U	0.72 U	0.072 U	0.069 U	0.71 U	0.72 U	0.071 U
Fluoranthene	mg/kg	30,000	**0.86**	**6.5**	**31.7**	**0.015**	**0.0013 J**	**0.16**	**1.7**	**8.8**	**0.57**	**0.084**	**0.98**	**0.014**	**0.031**	**0.047**	**0.32 J**	**0.029**	**0.0033 J**	**1.8**	**2.1**	**0.63**
Fluorene	mg/kg	30,000	**0.051**	**0.032**	**0.13**	0.0075 U	0.0078 U	**0.015**	**0.072**	**0.31**	**0.019**	0.071 U	**0.051**	**0.0011 J**	**0.002 J**	**0.0014 J**	**0.0047 J**	**0.00069 J**	0.0069 U	**0.035**	**0.029**	**0.03**
Indeno[1,2,3-c,d]pyrene	mg/kg	21	**0.82**	**1**	**3.4**	**0.02**	0.0078 U	**0.19**	**0.26**	**1.1**	**0.13**	0.071 U	**0.28**	**0.0051 J**	**0.0062 J**	**0.04 J**	**0.12 J**	**0.01**	0.0069 U	**0.4**	**0.44 J**	**0.43**
Naphthalene	mg/kg	8.6	**0.27**	**0.48**	**1**	0.005 B	0.0017 B	**0.081**	**0.56**	**0.3**	**0.075**	0.071 U	**0.07**	0.012 B	**0.018**	**0.016 J**	**0.024 J**	**0.0093**	0.0069 U	**0.12 J**	**0.19 J**	**0.088 J**
N-Nitrosodiphenylamine	mg/kg	470	0.7 U	0.71 U	0.71 U	0.073 U	0.077 U	0.071 U	0.08 U	**0.21 J**	0.08 U	**0.27 J**	0.083 U	0.073 U	0.071 U	0.69 U	0.72 U	0.072 U	0.069 U	0.71 U	0.72 U	0.071 U
Pentachlorophenol	mg/kg	4	1.7 U	1.8 U	1.8 U	0.18 U	0.19 U	0.18 U	0.2 U	1.8 U	0.2 U	1.7 U	0.21 U	0.18 U	0.18 U	1.7 U	1.8 U	0.18 UJ	0.17 UJ	1.8 UJ	1.8 UJ	0.18 U
Phenanthrene	mg/kg		**0.53**	**4.7**	**8.2**	**0.0073 J**	**0.0021 J**	**0.08**	**0.98**	**7.9**	**0.31**	**0.49**	**0.61**	**0.0099**	**0.027**	**0.022**	**0.077**	**0.018**	**0.0012 J**	**0.98**	**0.65**	**0.32**
Phenol	mg/kg	250,000	0.7 U	0.71 U	0.71 U	0.073 U	0.077 U	0.071 U	0.08 U	0.72 U	0.08 U	0.69 U	0.083 U	0.073 U	0.071 U	0.69 U	0.72 U	0.072 U	0.069 U	0.71 U	0.72 U	0.071 U
Pyrene	mg/kg	23,000	**0.85**	**5.1**	**26.2**	**0.014**	**0.0013 J**	**0.16**	**2**	**6.2**	**0.47**	**0.11**	**0.91**	**0.012**	**0.023**	**0.05**	**0.34 J**	**0.026**	**0.0034 J**	**1.5**	**1.4**	**0.59**
PCBs																						
Aroclor 1242	mg/kg	0.97	N/A	0.018 U	N/A	0.019 U	N/A	N/A	0.02 U	0.018 U	N/A	0.018 U	0.021 U	N/A	0.018 U	0.17 U	N/A	0.018 U	N/A	0.18 U	N/A	0.018 U
Aroclor 1248	mg/kg	0.94	N/A	**0.057**	N/A	0.019 U	N/A	N/A	0.02 U	0.018 U	N/A	0.018 U	0.021 U	N/A	0.018 U	0.17 U	N/A	0.018 U	N/A	0.18 U	N/A	0.018 U
Aroclor 1254	mg/kg	0.97	N/A	0.018 U	N/A	0.019 U	N/A	N/A	0.02 U	0.018 U	N/A	0.018 U	0.021 U	N/A	0.018 U	0.17 U	N/A	0.018 U	N/A	0.18 U	N/A	**0.051**
Aroclor 1260	mg/kg	0.99	N/A	0.018 U	N/A	**0.028**	N/A	N/A	0.02 U	0.018 U	N/A	0.018 U	0.021 U	N/A	0.018 U	0.17 U	N/A	0.018 UJ	N/A	0.18 UJ	N/A	0.018 U
Aroclor 1262	mg/kg		N/A	0.018 U	N/A	0.019 U	N/A	N/A	0.02 U	0.018 U	N/A	0.018 U	0.021 U	N/A	0.018 U	0.17 U	N/A	0.018 U	N/A	0.18 U	N/A	0.018 U
Aroclor 1268	mg/kg		N/A	0.018 U	N/A	0.019 U	N/A	N/A	0.02 U	0.018 U	N/A	0.018 U	0.021 U	N/A	0.018 U	0.17 U	N/A	**0.011 J**	N/A	0.18 UJ	N/A	0.018 U
PCBs (total)	mg/kg	0.97	N/A	**0.057 J**	N/A	**0.028 J**	N/A	N/A	0.18 U	0.16 U	N/A	0.16 U	0.19 U	N/A	0.16 U	1.6 U	N/A	0.16 U	N/A	1.6 U	N/A	**0.051 J**
TPH/Oil & Grease																						
Diesel Range Organics	mg/kg	6,200	**177**	**65**	**207**	**32.7**	**15.8**	**26.2**	**29.9**	**169**	**27.3**	**2,030**	**37.1**	**322**	**87.3**	**183**	**109**	**59 J**	2.6 B	**761 J**	**197 J**	**95.5**
Gasoline Range Organics	mg/kg	6,200	11.4 U	11 U	10.3 U	12 U	11.7 U	12.4 U	9 U	10.5 U	10.7 U	9.8 U	15.4 U	13 U	12 U	10.5 U	7.9 U	12.2 U	10.6 U	11.3 U	11.5 U	10.7 U
Oil & Grease	mg/kg	6,200	**1,030**	**578**	**1,340**	**170 J-**	**76 J-**	**554**	**158**	**475**	**629**	**2,870**	**696**	**961**	**460**	**12,400 J-**	**470 J-**	**274**	**272**	**2,310 J-**	**937 J-**	**262 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
^ PAH compounds were analyzed via SIM
Not included in SLRA due to excavation

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.
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 or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this analyte in the sample.

Table 1 - Sub-Parcel B22-2
Summary of Organics Detected in Soil

Parameter	Units	PAL	B21-073-SB-5 7/25/2018	B21-073-SB-10* 7/25/2018	B21-074-SB-1 7/25/2018	B21-074-SB-9 7/25/2018	B22-023-SB-1* 5/23/2016	B22-023-SB-9* 5/23/2016	B22-023-SB-10* 5/23/2016	B22-024-SB-1* 5/23/2016	B22-024-SB-4* 5/23/2016	B22-025-SB-4* 5/23/2016	B22-026-SB-1* 5/23/2016	B22-026-SB-9* 5/23/2016	B22-027-SB-1* 5/24/2016	B22-027-SB-5* 5/24/2016	B22-028-SB-1* 5/24/2016	B22-029-SB-1* 5/24/2016	B22-029-SB-6* 5/24/2016
Volatile Organic Compounds																			
1,1,1-Trichloroethane	mg/kg	36,000	N/A	N/A	N/A	0.0047 U	0.0049 U	0.0054 U	N/A	**0.087**	0.0063 U	0.0078 U	0.0056 U	0.0061 U	0.0064 U	0.0058 U	0.0066 U	0.0068 U	0.006 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	mg/kg	170,000	N/A	N/A	N/A	0.047 UJ	0.049 U	0.054 U	N/A	0.05 U	0.063 U	0.078 U	0.056 U	0.061 U	0.064 U	0.058 U	0.066 U	0.068 U	0.06 U
1,1-Dichloroethane	mg/kg	16	N/A	N/A	N/A	0.0047 U	0.0049 U	0.0054 U	N/A	0.005 U	0.0063 U	0.0078 U	0.0056 U	0.0061 U	0.0064 U	0.0058 U	0.0066 U	0.0068 U	0.006 U
1,1-Dichloroethene	mg/kg	1,000	N/A	N/A	N/A	0.0047 U	0.0049 U	0.0054 U	N/A	0.005 U	0.0063 U	0.0078 U	0.0056 U	0.0061 U	0.0064 U	0.0058 U	0.0066 U	0.0068 U	0.006 U
1,2,3-Trichlorobenzene	mg/kg	930	N/A	N/A	N/A	0.0047 U	0.0049 U	0.0054 U	N/A	0.005 U	0.0063 U	0.0078 U	0.0056 U	0.0061 U	0.0064 U	0.0058 U	0.0066 U	0.0068 U	0.006 U
1,2-Dichloroethane	mg/kg	2	N/A	N/A	N/A	0.0047 U	0.0049 U	0.0054 U	N/A	0.005 U	0.0063 U	0.0078 U	0.0056 U	0.0061 U	0.0064 U	0.0058 U	0.0066 U	0.0068 U	0.006 U
1,2-Dichloroethene (Total)	mg/kg	2,300	N/A	N/A	N/A	0.0094 U	0.0098 U	0.011 U	N/A	0.01 U	0.013 U	0.016 U	0.011 U	0.012 U	0.013 U	0.012 U	0.013 U	0.014 U	0.012 U
2-Butanone (MEK)	mg/kg	190,000	N/A	N/A	N/A	0.0094 U	0.0098 U	0.011 U	N/A	0.01 U	0.013 U	0.016 U	0.011 U	**0.0038 J**	0.013 U	0.012 U	0.013 U	0.014 U	0.012 U
2-Hexanone	mg/kg	1,300	N/A	N/A	N/A	0.0094 U	0.0098 U	0.011 U	N/A	0.01 U	0.013 U	0.016 U	0.011 U	0.012 U	0.013 U	0.012 U	0.013 U	0.014 U	0.012 U
4-Methyl-2-pentanone (MIBK)	mg/kg	56,000	N/A	N/A	N/A	0.0094 U	0.0098 U	0.011 U	N/A	0.01 U	0.013 U	0.016 U	0.011 U	0.012 U	0.013 U	0.012 U	0.013 U	0.014 U	0.012 U
Acetone	mg/kg	670,000	N/A	N/A	N/A	**0.012**	0.0098 U	**0.0087 J**	N/A	0.01 U	0.013 U	0.016 U	0.011 U	0.012 U	0.013 U	0.012 U	0.013 U	0.014 U	0.012 U
Benzene	mg/kg	5.1	N/A	N/A	N/A	0.0047 U	**0.002 J**	**0.0052 J**	N/A	0.005 U	0.0063 U	0.0078 U	0.0056 U	0.0061 U	**0.0022 J**	0.0058 U	0.0066 U	0.0068 U	0.006 U
Carbon tetrachloride	mg/kg	2.9	N/A	N/A	N/A	0.0047 U	0.0049 U	0.0054 U	N/A	0.005 U	0.0063 U	0.0078 U	0.0056 U	0.0061 U	0.0064 U	0.0058 U	0.0066 U	0.0068 U	0.006 U
Chloroform	mg/kg	1.4	N/A	N/A	N/A	0.0047 U	0.0049 U	0.0054 U	N/A	0.005 U	0.0063 U	0.0078 U	0.0056 U	0.0061 U	0.0064 U	0.0058 U	0.0066 U	0.0068 U	0.006 U
cis-1,2-Dichloroethene	mg/kg	2,300	N/A	N/A	N/A	0.0047 U	0.0049 U	0.0054 U	N/A	0.005 U	0.0063 U	0.0078 U	0.0056 U	0.0061 U	0.0064 U	0.0058 U	0.0066 U	0.0068 U	0.006 U
Cyclohexane	mg/kg	27,000	N/A	N/A	N/A	**0.0041 J**	0.0098 U	0.011 U	N/A	0.01 U	0.013 U	0.016 U	0.011 U	0.012 U	0.013 U	0.012 U	0.013 U	0.014 U	0.012 U
Ethylbenzene	mg/kg	25	N/A	N/A	N/A	0.0047 U	0.0049 U	**0.0053 J**	N/A	0.005 U	0.0063 U	0.0078 U	0.0056 U	0.0061 U	0.0064 U	0.0058 U	0.0066 U	0.0068 U	0.006 U
Isopropylbenzene	mg/kg	9,900	N/A	N/A	N/A	0.0047 U	0.0049 U	0.0054 U	N/A	0.005 U	0.0063 U	0.0078 U	0.0056 U	0.0061 U	0.0064 U	0.0058 U	0.0066 U	0.0068 U	0.006 U
Methyl Acetate	mg/kg	1,200,000	N/A	N/A	N/A	0.047 U	0.049 U	0.054 U	N/A	0.05 U	0.063 U	0.078 U	0.056 U	0.061 U	0.064 U	0.058 U	0.066 U	0.068 U	0.06 U
Styrene	mg/kg	35,000	N/A	N/A	N/A	0.0047 U	0.0049 U	0.0054 U	N/A	0.005 U	0.0063 U	0.0078 U	0.0056 U	0.0061 U	0.0064 U	0.0058 U	0.0066 U	0.0068 U	0.006 U
Tetrachloroethene	mg/kg	100	N/A	N/A	N/A	0.0047 U	0.0049 U	0.0054 U	N/A	0.005 U	0.0063 U	0.0078 U	0.0056 U	0.0061 U	0.0064 U	0.0058 U	0.0066 U	0.0068 U	0.006 U
Toluene	mg/kg	47,000	N/A	N/A	N/A	0.0047 U	0.0049 U	**0.0089**	N/A	**0.0016 J**	**0.0026 J**	0.0078 U	0.0056 U	**0.0025 J**	0.0064 U	0.0058 U	0.0066 U	0.0068 U	0.006 U
trans-1,2-Dichloroethene	mg/kg	23,000	N/A	N/A	N/A	0.0047 U	0.0049 U	0.0054 U	N/A	0.005 U	0.0063 U	0.0078 U	0.0056 U	0.0061 U	0.0064 U	0.0058 U	0.0066 U	0.0068 U	0.006 U
Trichloroethene	mg/kg	6	N/A	N/A	N/A	0.0047 U	0.0049 U	0.0054 U	N/A	0.005 U	0.0063 U	0.0078 U	0.0056 U	0.0061 U	0.0064 U	0.0058 U	0.0066 U	0.0068 U	0.006 U
Vinyl chloride	mg/kg	1.7	N/A	N/A	N/A	0.0047 U	0.0049 U	0.0054 U	N/A	0.005 U	0.0063 U	0.0078 U	0.0056 U	0.0061 U	0.0064 U	0.0058 U	0.0066 U	0.0068 U	0.006 U
Xylenes	mg/kg	2,800	N/A	N/A	N/A	0.014 U	0.015 U	**0.0056 J**	N/A	0.015 U	0.019 U	0.023 U	0.017 U	0.018 U	0.019 U	0.017 U	0.02 U	0.02 U	0.018 U
Semi-Volatile Organic Compounds^																			
1,1-Biphenyl	mg/kg	200	0.72 U	N/A	0.72 U	0.78 U	0.078 U	**0.047 J**	N/A	**0.021 J**	**0.036 J**	**0.022 J**	**0.031 J**	0.074 U	0.079 U	0.072 U	0.077 U	0.073 U	0.074 U
1,2,4,5-Tetrachlorobenzene	mg/kg	350	0.72 U	N/A	0.72 U	0.78 U	0.078 U	0.072 U	N/A	0.077 U	0.077 U	0.07 U	0.076 U	0.074 U	0.079 U	0.072 U	0.077 U	0.073 U	0.074 U
2,4-Dimethylphenol	mg/kg	16,000	0.72 U	N/A	0.72 U	0.78 U	0.078 U	0.072 U	N/A	0.077 U	0.077 U	**0.024 J**	0.076 U	0.074 U	0.079 U	0.072 U	0.077 U	0.073 U	0.074 U
2-Chloronaphthalene	mg/kg	60,000	0.72 U	N/A	0.72 U	0.78 U	0.078 U	0.072 U	N/A	0.077 U	0.077 U	0.07 U	0.076 U	**0.06 J**	0.079 U	0.072 U	0.077 U	0.073 U	0.074 U
2-Methylnaphthalene	mg/kg	3,000	**0.21**	N/A	**0.91**	**0.31**	**0.061 J**	**0.046 J**	N/A	**0.049**	**0.052 J**	**0.024**	**0.26**	**0.02**	**0.0064 J**	**0.012**	0.078 U	0.0074 U	**0.04**
2-Methylphenol	mg/kg	41,000	0.72 U	N/A	0.72 U	0.78 U	0.078 U	0.072 U	N/A	0.077 U	0.077 U	0.07 U	0.076 U	0.074 U	0.079 U	0.072 U	0.077 U	0.073 U	0.074 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	1.4 U	N/A	1.4 U	1.6 U	0.16 U	0.14 U	N/A	0.15 U	0.15 U	0.14 U	0.15 U	0.15 U	0.16 U	0.14 U	0.15 U	0.15 U	0.15 U
3,3'-Dichlorobenzidine	mg/kg	5.1	0.72 U	N/A	0.72 U	0.78 U	0.078 U	0.072 U	N/A	0.077 U	0.077 U	0.07 U	0.076 U	0.074 U	0.079 U	0.072 U	0.077 U	0.073 U	0.074 U
4-Nitroaniline	mg/kg	110	1.8 U	N/A	1.8 U	2 U	0.2 U	0.18 U	N/A	0.19 U	0.19 U	0.17 U	0.19 U	0.19 U	0.2 U	0.18 U	0.19 U	0.18 U	0.19 U
Acenaphthene	mg/kg	45,000	**0.58**	N/A	**0.13**	**1.4**	**0.0075 J**	**0.45**	N/A	**0.0077 J**	**0.15**	**0.011**	**0.012**	**0.0016 J**	0.008 U	**0.012**	0.078 U	0.0074 U	**0.042**
Acenaphthylene	mg/kg	45,000	**0.19**	N/A	**3.6**	**0.058**	**0.083**	**0.12**	N/A	**0.033**	**0.15**	**0.015**	**0.05**	**0.048**	0.008 U	**0.0018 J**	**0.03 J**	0.0074 U	**0.055**
Acetophenone	mg/kg	120,000	0.72 U	N/A	0.72 U	0.78 U	0.078 U	0.072 U	N/A	0.077 U	0.077 U	0.07 U	**0.023 J**	0.074 U	0.079 U	0.072 U	**0.039 J**	0.073 U	0.074 U
Anthracene	mg/kg	230,000	**0.36**	N/A	**0.25**	**0.47**	**0.13**	**2**	N/A	**0.068**	**0.92**	**0.028**	**0.22**	**0.017**	**0.0012 J**	**0.083**	**0.032 J**	**0.0016 J**	**0.37**
Benz[a]anthracene	mg/kg	21	**1.3**	N/A	**0.29**	**2.5**	**0.51**	**4.9**	**0.8**	**0.38**	**2.6**	**0.079**	**1.1**	**0.039**	**0.0044 J**	**0.13**	**0.074 J**	**0.011**	**2.2**
Benzaldehyde	mg/kg	120,000	0.72 R	N/A	0.72 R	0.78 R	**0.49**	0.072 U	N/A	**0.11**	**0.035 J**	0.07 U	**0.058 J**	**0.019 J**	0.079 U	0.072 U	**0.064 J**	0.073 U	0.074 U
Benzo[a]pyrene	mg/kg	2.1	**2.4**	**0.96**	**0.63**	**4.8**	**0.43**	**3.5**	**0.57**	**0.27**	**1.7**	**0.085**	**0.88**	**0.03**	**0.003 J**	**0.11**	**0.089**	**0.0099**	**1.2**
Benzo[b]fluoranthene	mg/kg	21	**3.1**	N/A	**1.4**	**5.7**	**1**	**5.6**	**1.3**	**0.68**	**3.6**	**0.25**	**1.5**	**0.073**	**0.008**	**0.28**	**0.35**	**0.029**	**3.2**
Benzo[g,h,i]perylene	mg/kg		**0.99**	N/A	**0.37**	**1.4**	**0.27**	**1.8**	N/A	**0.14**	**0.89**	**0.047**	**0.36**	**0.016**	**0.0016 J**	**0.048**	**0.073 J**	**0.0046 J**	**0.35**
Benzo[k]fluoranthene	mg/kg	210	**1.2**	N/A	**0.5**	**2.2**	**0.87**	**1.9**	N/A	**0.59**	**3.1**	**0.21**	**0.49**	**0.063**	**0.007 J**	**0.24**	**0.31**	**0.026**	**3.2**
bis(2-Ethylhexyl)phthalate	mg/kg	160	0.72 U	N/A	0.72 U	0.78 U	**0.14**	0.072 U	N/A	**0.15**	**0.049 J**	**0.015 J**	0.076 U	0.074 U	0.079 U	0.072 U	**0.82**	0.073 U	0.074 U
Carbazole	mg/kg		0.72 U	N/A	0.72 U	**0.28 J**	**0.045 J**	**0.88**	N/A	**0.061 J**	**0.19**	0.07 U	**0.036 J**	0.074 U	0.079 U	**0.032 J**	**0.018 J**	0.073 U	**0.05 J**
Chrysene	mg/kg	2,100	**1.2**	N/A	**0.3**	**2.2**	**0.47**	**4.4**	N/A	**0.38**	**2.1**	**0.12**	**1**	**0.047**	**0.0046 J**	**0.14**	**0.26**	**0.015**	**1.4**
Dibenz[a,h]anthracene	mg/kg	2.1	**0.56**	N/A	**0.17**	**1**	**0.11**	**0.84**	**0.16**	**0.068**	**0.41**	**0.021**	**0.16**	**0.0061 J**	0.008 U	**0.016**	**0.022 J**	**0.002 J**	**0.2**
Diethylphthalate	mg/kg	660,000	0.72 U	N/A	0.72 U	0.78 U	0.078 U	0.072 U	N/A	0.077 U	0.077 U	0.07 U	0.076 U	0.074 U	0.079 U	0.072 U	0.077 U	0.073 U	0.074 U
Di-n-butylphthalate	mg/kg	82,000	0.72 U	N/A	0.72 U	0.78 U	0.078 U	0.072 U	N/A	0.077 U	0.077 U	0.07 U	0.076 U	0.074 U	0.079 U	0.072 U	**0.095**	0.073 U	0.074 U
Di-n-ocytlphthalate	mg/kg	8,200	0.72 U	N/A	0.72 U	0.78 U	**0.031 J**	0.072 U	N/A	**0.05 J**	0.077 U	0.07 U	0.076 U	0.074 U	0.079 U	0.072 U	0.077 U	0.073 U	0.074 U
Fluoranthene	mg/kg	30,000	**1.9**	N/A	**0.29**	**2.7**	**0.86**	**9.8**	N/A	**0.69**	**4.4**	**0.085**	**1.4**	**0.083**	**0.0069 J**	**0.37**	**0.29**	**0.019**	**3**
Fluorene	mg/kg	30,000	**0.18**	N/A	**0.23**	**0.18**	**0.019 J**	**0.49**	N/A	**0.013**	**0.25**	**0.0055 J**	**0.008**	**0.0039 J**	0.008 U	**0.002 J**	0.078 U	0.0074 U	**0.083**
Indeno[1,2,3-c,d]pyrene	mg/kg	21	**1.2**	N/A	**0.41**	**2.4**	**0.25**	**1.8**	N/A	**0.15**	**0.91**	**0.048**	**0.42**	**0.013**	**0.0012 J**	**0.05**	**0.046 J**	**0.0051 J**	**0.41**
Naphthalene	mg/kg	8.6	**0.53 J**	N/A	**6.6 J**	**1.3 J**	**0.1**	**0.043 J**	N/A	**0.16**	**0.1**	**0.043**	**0.24**	**0.076**	**0.0039 J**	**0.0075**	0.078 U	0.0074 U	**0.067**
N-Nitrosodiphenylamine	mg/kg	470	0.72 U	N/A	0.72 U	0.78 U	0.078 U	0.072 U	N/A	0.077 U	0.077 U	0.07 U	0.076 U	0.074 U	0.079 U	0.072 U	0.077 U	0.073 U	0.074 U
Pentachlorophenol	mg/kg	4	1.8 U	N/A	1.8 U	2 U	0.2 U	0.18 U	N/A	0.19 U	0.19 U	0.17 U	0.19 U	0.19 U	0.2 U	0.18 U	0.19 U	0.18 U	0.19 U
Phenanthrene	mg/kg		**1.4**	N/A	**0.7**	**2.2**	**0.42**	**8.5**	N/A	**0.28**	**2.9**	**0.069**	**0.91**	**0.082**	**0.0059 J**	**0.32**	**0.13**	**0.008**	**1.1**
Phenol	mg/kg	250,000	0.72 U	N/A	0.72 U	0.78 U	0.078 U	0.072 U	N/A	0.077 U	0.077 U	0.07 U	0.076 U	0.074 U	0.079 U	0.072 U	**0.025 J**	0.073 U	0.074 U
Pyrene	mg/kg	23,000	**1.8**	N/A	**0.22**	**2.7**	**0.75**	**7.2**	N/A	**0.52**	**3.2**	**0.072**	**1.1**	**0.072**	**0.0052 J**	**0.26**	**0.5**	**0.012**	**2.4**
PCBs																			
Aroclor 1242	mg/kg	0.97	N/A	N/A	0.018 U	N/A	0.0569 U	N/A	N/A	0.0667 U	N/A	N/A	0.0572 U	N/A	0.0647 U	N/A	1.82 U	0.0565 U	N/A
Aroclor 1248	mg/kg	0.94	N/A	N/A	0.018 U	N/A	0.0569 U	N/A	N/A	**0.0938**	N/A	N/A	0.0572 U	N/A	0.0647 U	N/A	1.82 U	0.0565 U	N/A
Aroclor 1254	mg/kg	0.97	N/A	N/A	0.018 U	N/A	**0.0424 J**	N/A	N/A	**0.0839**	N/A	N/A	0.0572 U	N/A	0.0647 U	N/A	1.82 U	0.0565 U	N/A
Aroclor 1260	mg/kg	0.99	N/A	N/A	0.018 U	N/A	0.0569 U	N/A	N/A	0.0667 U	N/A	N/A	0.0572 U	N/A	0.0647 U	N/A	1.82 U	0.0565 U	N/A
Aroclor 1262	mg/kg		N/A	N/A	0.018 U	N/A	0.0569 U	N/A	N/A	**0.115**	N/A	N/A	0.0572 U	N/A	0.0647 U	N/A	1.82 U	0.0565 U	N/A
Aroclor 1268	mg/kg		N/A	N/A	0.018 U	N/A	0.0569 U	N/A	N/A	0.0667 U	N/A	N/A	**0.432**	N/A	0.0647 U	N/A	**74.4**	**0.14**	N/A
PCBs (total)	mg/kg	0.97	N/A	N/A	0.16 U	N/A	**0.0424 J**	N/A	N/A	**0.2927**	N/A	N/A	**0.432**	N/A	0.0647 U	N/A	**74.4**	**0.14**	N/A
TPH/Oil & Grease																			
Diesel Range Organics	mg/kg	6,200	**389**	N/A	**238**	**148**	**138**	**133**	N/A	**71**	**110**	**134**	**30.6**	**26.1**	**6.4 J**	**14.6**	**560**	**16**	**44.8**
Gasoline Range Organics	mg/kg	6,200	10.2 U	N/A	9.5 U	10.9 U	10.4 U	**20.4**	N/A	10.1 U	11.5 U	9.9 U	12.1 U	12.9 U	12.2 U	11.4 U	15.1 U	12.3 U	12.8 U
Oil & Grease	mg/kg	6,200	**1,040 J-**	N/A	**601 J-**	**603 J-**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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
^ PAH compounds were analyzed via SIM
Not included in SLRA due to excavation

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.
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 or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this analyte in the sample.

Table 1 - Sub-Parcel B22-2
Summary of Organics Detected in Soil

Parameter	Units	PAL	B22-030-SB-1*	B22-030-SB-5*	B22-030-SB-10*	B22-031-SB-1*	B22-031-SB-4*	B22-031-SB-10*	B22-032-SB-1*	B22-032-SB-4*	B22-032-SB-10*	B22-033-SB-1*	B22-034-SB-1*	B22-059-SB-1*	B22-059-SB-4*	B22-060-SB-1*	B22-060-SB-4*	B22-062-SB-1*	B22-062-SB-4*
			5/24/2016	5/24/2016	5/24/2016	5/19/2016	5/19/2016	5/19/2016	5/23/2016	5/23/2016	5/23/2016	5/24/2016	5/25/2016	5/23/2016	5/23/2016	5/23/2016	5/23/2016	5/18/2016	5/18/2016
Volatile Organic Compounds																			
1,1,1-Trichloroethane	mg/kg	36,000	0.0079 U	0.0082 U	N/A	0.0056 U	0.0051 U	N/A	0.0054 U	0.0045 U	N/A	0.0048 U	0.0025 U	0.0082 U	0.0074 U	0.0062 U	0.0051 U	0.0049 U	0.0062 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	mg/kg	170,000	0.079 U	0.082 U	N/A	0.056 U	0.051 U	N/A	0.054 U	0.045 U	N/A	0.048 U	0.025 U	0.082 U	0.074 U	0.062 U	0.051 U	0.049 U	0.062 U
1,1-Dichloroethane	mg/kg	16	0.0079 U	0.0082 U	N/A	0.0056 U	0.0051 U	N/A	0.0054 U	0.0045 U	N/A	0.0048 U	0.0025 U	0.0082 U	0.0074 U	0.0062 U	0.0051 U	0.0049 U	0.0062 U
1,1-Dichloroethene	mg/kg	1,000	0.0079 U	0.0082 U	N/A	0.0056 U	0.0051 U	N/A	0.0054 U	0.0045 U	N/A	0.0048 U	0.0025 U	0.0082 U	0.0074 U	0.0062 U	0.0051 U	0.0049 U	0.0062 U
1,2,3-Trichlorobenzene	mg/kg	930	0.0079 U	0.0082 U	N/A	0.0056 U	0.0051 U	N/A	0.0054 U	0.0045 U	N/A	0.0048 U	0.0025 U	0.0082 U	0.0074 U	**0.0015 J**	0.0051 U	0.0049 U	0.0062 U
1,2-Dichloroethane	mg/kg	2	0.0079 U	0.0082 U	N/A	0.0056 U	0.0051 U	N/A	0.0054 U	0.0045 U	N/A	0.0048 U	0.0025 U	0.0082 U	0.0074 U	0.0062 U	0.0051 U	0.0049 U	0.0062 U
1,2-Dichloroethene (Total)	mg/kg	2,300	0.016 U	0.016 U	N/A	0.011 U	0.01 U	N/A	0.011 U	0.009 U	N/A	0.0096 U	0.005 U	0.016 U	0.015 U	0.012 U	0.01 U	0.0098 U	0.012 U
2-Butanone (MEK)	mg/kg	190,000	0.016 U	0.016 U	N/A	0.011 U	0.01 U	N/A	0.011 U	**0.0026 J**	N/A	0.0096 U	0.005 U	0.016 U	0.015 U	0.012 U	0.01 U	0.0098 U	0.012 U
2-Hexanone	mg/kg	1,300	0.016 U	0.016 U	N/A	0.011 U	0.01 U	N/A	0.011 U	0.009 U	N/A	0.0096 U	0.005 U	0.016 U	0.015 U	0.012 U	0.01 U	0.0098 U	0.012 U
4-Methyl-2-pentanone (MIBK)	mg/kg	56,000	0.016 U	0.016 U	N/A	0.011 U	0.01 U	N/A	0.011 U	0.009 U	N/A	0.0096 U	0.005 U	0.016 U	0.015 U	0.012 U	0.01 U	0.0098 U	0.012 U
Acetone	mg/kg	670,000	0.016 U	0.016 U	N/A	**0.0096 J**	**0.01**	N/A	0.011 U	0.009 U	N/A	0.0096 U	0.005 U	0.016 U	0.015 U	0.012 U	0.01 U	0.0098 U	0.012 U
Benzene	mg/kg	5.1	**0.0035 J**	0.0082 U	N/A	0.0056 U	0.0051 U	N/A	0.0054 U	0.0045 U	N/A	0.0048 U	0.0025 U	0.0082 U	0.0074 U	0.0062 U	0.0051 U	0.0049 U	0.0062 U
Carbon tetrachloride	mg/kg	2.9	0.0079 U	0.0082 U	N/A	0.0056 U	0.0051 U	N/A	0.0054 U	0.0045 U	N/A	0.0048 U	0.0025 U	0.0082 U	0.0074 U	0.0062 U	0.0051 U	0.0049 U	0.0062 U
Chloroform	mg/kg	1.4	0.0079 U	0.0082 U	N/A	0.0056 U	0.0051 U	N/A	0.0054 U	0.0045 U	N/A	0.0048 U	0.0025 U	0.0082 U	0.0074 U	0.0062 U	0.0051 U	0.0049 U	0.0062 U
cis-1,2-Dichloroethene	mg/kg	2,300	0.0079 U	0.0082 U	N/A	0.0056 U	0.0051 U	N/A	0.0054 U	0.0045 U	N/A	0.0048 U	0.0025 U	0.0082 U	0.0074 U	0.0062 U	0.0051 U	0.0049 U	0.0062 U
Cyclohexane	mg/kg	27,000	0.016 U	0.016 U	N/A	0.011 U	0.01 U	N/A	0.011 U	0.009 U	N/A	0.0096 U	0.005 U	0.016 U	0.015 U	0.012 U	0.01 U	0.0098 U	0.012 U
Ethylbenzene	mg/kg	25	0.0079 U	0.0082 U	N/A	0.0056 U	0.0051 U	N/A	0.0054 U	**0.0022 J**	N/A	0.0048 U	0.0025 U	0.0082 U	0.0074 U	**0.0047 J**	0.0051 U	0.0049 U	0.0062 U
Isopropylbenzene	mg/kg	9,900	0.0079 U	0.0082 U	N/A	0.0056 U	0.0051 U	N/A	0.0054 U	0.0045 U	N/A	0.0048 U	0.0025 U	0.0082 U	0.0074 U	**0.0066**	0.0051 U	0.0049 U	0.0062 U
Methyl Acetate	mg/kg	1,200,000	0.079 U	0.082 U	N/A	0.056 U	0.051 U	N/A	0.054 U	0.045 U	N/A	0.048 U	0.025 U	0.082 U	0.074 U	0.062 U	0.051 U	0.049 U	0.062 U
Styrene	mg/kg	35,000	0.0079 U	0.0082 U	N/A	0.0056 U	0.0051 U	N/A	0.0054 U	0.0045 U	N/A	0.0048 U	0.0025 U	0.0082 U	0.0074 U	0.0062 U	0.0051 U	0.0049 U	0.0062 U
Tetrachloroethene	mg/kg	100	0.0079 U	0.0082 U	N/A	0.0056 U	0.0051 U	N/A	0.0054 U	0.0045 U	N/A	0.0048 U	0.0025 U	0.0082 U	0.0074 U	0.0062 U	0.0051 U	0.0049 U	0.0062 U
Toluene	mg/kg	47,000	0.0079 U	0.0082 U	N/A	0.0056 U	0.0051 U	N/A	0.0054 U	**0.0038 J**	N/A	0.0048 U	0.0025 U	0.0082 U	0.0074 U	**0.0028 J**	0.0051 U	0.0049 U	0.0062 U
trans-1,2-Dichloroethene	mg/kg	23,000	0.0079 U	0.0082 U	N/A	0.0056 U	0.0051 U	N/A	0.0054 U	0.0045 U	N/A	0.0048 U	0.0025 U	0.0082 U	0.0074 U	0.0062 U	0.0051 U	0.0049 U	0.0062 U
Trichloroethene	mg/kg	6	0.0079 U	0.0082 U	N/A	0.0056 U	0.0051 U	N/A	0.0054 U	0.0045 U	N/A	0.0048 U	0.0025 U	0.0082 U	0.0074 U	0.0062 U	0.0051 U	0.0049 U	0.0062 U
Vinyl chloride	mg/kg	1.7	0.0079 U	0.0082 U	N/A	0.0056 U	0.0051 U	N/A	0.0054 U	0.0045 U	N/A	0.0048 U	0.0025 U	0.0082 U	0.0074 U	0.0062 U	0.0051 U	0.0049 U	0.0062 U
Xylenes	mg/kg	2,800	0.024 U	0.025 U	N/A	0.017 U	0.015 U	N/A	0.016 U	0.014 U	N/A	0.014 U	0.0075 U	0.025 U	0.022 U	**0.023**	0.015 U	0.015 U	0.019 U
Semi-Volatile Organic Compounds^																			
1,1-Biphenyl	mg/kg	200	0.073 U	0.074 U	N/A	0.07 U	**0.016 J**	N/A	0.069 U	0.072 U	N/A	0.074 U	0.073 U	0.076 U	0.077 U	**0.096**	0.071 U	0.072 U	0.076 U
1,2,4,5-Tetrachlorobenzene	mg/kg	350	0.073 U	**0.023 J**	N/A	0.07 U	0.071 U	N/A	0.069 U	0.072 U	N/A	0.074 U	0.073 U	0.076 U	0.077 U	0.073 U	0.071 U	0.072 U	0.076 U
2,4-Dimethylphenol	mg/kg	16,000	0.073 U	0.074 U	N/A	0.07 U	0.071 U	N/A	0.069 U	0.072 U	N/A	0.074 U	0.073 U	0.076 U	0.077 U	0.073 U	0.071 U	0.072 U	0.076 U
2-Chloronaphthalene	mg/kg	60,000	0.073 U	0.074 U	N/A	0.07 U	0.071 U	N/A	0.069 U	0.072 U	N/A	0.074 U	0.073 U	0.076 U	0.077 U	0.073 U	0.071 U	0.072 U	0.076 U
2-Methylnaphthalene	mg/kg	3,000	**0.12**	**0.11**	N/A	**0.059**	**0.15**	N/A	**0.023**	**0.012**	N/A	**0.0086**	**0.0062 J**	0.077 U	**0.032**	**0.41**	**0.046**	**0.092**	**0.065 J**
2-Methylphenol	mg/kg	41,000	0.073 U	0.074 U	N/A	0.07 U	0.071 U	N/A	0.069 U	0.072 U	N/A	0.074 U	0.073 U	0.076 U	0.077 U	0.073 U	0.071 U	0.072 U	0.076 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	0.15 U	0.15 U	N/A	0.14 U	0.14 U	N/A	0.14 U	0.14 U	N/A	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.14 U	0.14 U	0.15 U
3,3'-Dichlorobenzidine	mg/kg	5.1	0.073 U	0.074 U	N/A	0.07 U	0.071 U	N/A	0.069 U	0.072 U	N/A	0.074 U	0.073 U	0.076 U	0.077 U	0.073 U	0.071 U	0.072 U	0.076 U
4-Nitroaniline	mg/kg	110	0.18 U	0.19 U	N/A	0.18 U	0.18 U	N/A	0.17 U	0.18 U	N/A	0.19 U	0.18 U	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U	0.19 U
Acenaphthene	mg/kg	45,000	**0.0031 J**	**0.0036 J**	N/A	**0.013**	**0.011**	N/A	**0.001 J**	**0.0025 J**	N/A	**0.003 J**	**0.0013 J**	**0.0057 J**	**0.018**	**0.08**	**0.012**	**0.01 J**	**0.03 J**
Acenaphthylene	mg/kg	45,000	**0.044**	**0.055**	N/A	**0.039**	**0.15**	N/A	**0.0063 J**	**0.014**	N/A	**0.0059 J**	**0.0014 J**	**0.015 J**	**0.023**	**0.037**	**0.034**	**0.026 J**	**0.023 J**
Acetophenone	mg/kg	120,000	0.073 U	0.074 U	N/A	0.07 U	0.071 U	N/A	0.069 U	0.072 U	N/A	0.074 U	0.073 U	0.076 U	0.077 U	0.073 U	0.071 U	0.072 U	0.076 U
Anthracene	mg/kg	230,000	**0.046**	**0.074**	N/A	**0.042**	**0.18**	N/A	**0.016**	**0.031**	N/A	**0.015**	**0.009**	**0.038 J**	**0.077**	**0.096**	**0.057**	**0.041 J**	**0.19**
Benz[a]anthracene	mg/kg	21	**0.25**	**0.61**	N/A	**0.25**	**0.59**	N/A	**0.049**	**0.19**	N/A	**0.073**	**0.044**	**0.12**	**0.4**	**0.39**	**0.26**	**0.29**	**1.2**
Benzaldehyde	mg/kg	120,000	0.073 U	**0.021 J**	N/A	0.07 U	0.071 U	N/A	0.069 U	0.072 U	N/A	0.074 U	0.073 U	0.076 U	0.077 U	0.073 U	0.071 U	0.072 U	0.076 U
Benzo[a]pyrene	mg/kg	2.1	**0.19**	**0.54**	0.0084 U	**0.22**	**0.49**	**0.52**	**0.044**	**0.17**	**0.023**	**0.09**	**0.059**	**0.14**	**0.42**	**0.24**	**0.23**	**0.28**	**1.1**
Benzo[b]fluoranthene	mg/kg	21	**0.57**	**1.3**	N/A	**0.64**	**1.3**	N/A	**0.13**	**0.36**	N/A	**0.24**	**0.12**	**0.32**	**0.76**	**0.72**	**0.59**	**0.58**	**2.5**
Benzo[g,h,i]perylene	mg/kg		**0.11**	**0.24**	N/A	**0.16**	**0.24**	N/A	**0.037**	**0.097**	N/A	**0.067**	**0.052**	**0.078**	**0.25**	**0.11**	**0.088**	**0.21**	**0.49**
Benzo[k]fluoranthene	mg/kg	210	**0.5**	**1.2**	N/A	**0.53**	**1**	N/A	**0.11**	**0.32**	N/A	**0.21**	**0.11**	**0.28**	**0.74**	**0.62**	**0.51**	**0.56**	**2.4**
bis(2-Ethylhexyl)phthalate	mg/kg	160	**0.019 J**	0.074 U	N/A	0.07 U	**0.019 J**	N/A	0.069 U	0.072 U	N/A	**0.022 J**	0.073 U	0.076 U	**0.016 J**	0.073 U	**0.014 J**	**0.044 J**	**0.016 J**
Carbazole	mg/kg		0.073 U	**0.037 J**	N/A	**0.019 J**	**0.038 J**	N/A	0.069 U	0.072 U	N/A	0.074 U	0.073 U	0.076 U	0.077 U	**0.035 J**	0.071 U	0.072 U	**0.074 J**
Chrysene	mg/kg	2,100	**0.3**	**0.58**	N/A	**0.38**	**0.6**	N/A	**0.078**	**0.18**	N/A	**0.1**	**0.05**	**0.13**	**0.48**	**0.36**	**0.24**	**0.3**	**1.2**
Dibenz[a,h]anthracene	mg/kg	2.1	**0.047**	**0.096**	N/A	**0.069**	**0.12**	N/A	**0.013**	**0.037**	N/A	**0.02**	**0.011**	**0.024 J**	**0.061**	**0.045**	**0.031**	**0.054 J**	**0.15**
Diethylphthalate	mg/kg	660,000	0.073 U	0.074 U	N/A	0.07 U	0.071 U	N/A	0.069 U	0.072 U	N/A	0.074 U	0.073 U	0.076 U	0.077 U	0.073 U	0.071 U	0.072 U	0.076 U
Di-n-butylphthalate	mg/kg	82,000	0.073 U	0.074 U	N/A	0.07 U	0.071 U	N/A	0.069 U	0.072 U	N/A	0.074 U	0.073 U	0.076 U	0.077 U	0.073 U	0.071 U	0.072 U	0.076 U
Di-n-ocytlphthalate	mg/kg	8,200	0.073 U	0.074 U	N/A	0.07 U	0.071 U	N/A	0.069 U	0.072 U	N/A	**0.023 J**	0.073 U	0.076 U	0.077 U	0.073 U	0.071 U	0.072 U	0.076 U
Fluoranthene	mg/kg	30,000	**0.41**	**0.78**	N/A	**0.6**	**1**	N/A	**0.12**	**0.36**	N/A	**0.14**	**0.06**	**0.16**	**0.66**	**1.1**	**0.46**	**0.44**	**2**
Fluorene	mg/kg	30,000	**0.0051 J**	**0.0046 J**	N/A	**0.0089**	**0.023**	N/A	**0.0018 J**	**0.0054 J**	N/A	**0.0026 J**	**0.0011 J**	0.077 U	**0.013**	**0.043**	**0.0083**	**0.008 J**	**0.018 J**
Indeno[1,2,3-c,d]pyrene	mg/kg	21	**0.11**	**0.26**	N/A	**0.17**	**0.27**	N/A	**0.032**	**0.092**	N/A	**0.058**	**0.04**	**0.074 J**	**0.23**	**0.11**	**0.097**	**0.19**	**0.52**
Naphthalene	mg/kg	8.6	**0.14**	**0.11**	N/A	**0.08**	**0.14**	N/A	**0.11**	**0.021**	N/A	**0.016**	**0.0098**	**0.028 J**	**0.029**	**0.076**	**0.022**	**0.12**	**0.11**
N-Nitrosodiphenylamine	mg/kg	470	0.073 U	0.074 U	N/A	0.07 U	0.071 U	N/A	0.069 U	0.072 U	N/A	0.074 U	0.073 U	0.076 U	0.077 U	0.073 U	0.071 U	0.072 U	0.076 U
Pentachlorophenol	mg/kg	4	0.18 U	0.19 U	N/A	0.18 U	0.18 U	N/A	0.17 U	0.18 U	N/A	0.19 U	0.18 U	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U	0.19 U
Phenanthrene	mg/kg		**0.22**	**0.28**	N/A	**0.14**	**0.39**	N/A	**0.074**	**0.11**	N/A	**0.055**	**0.029**	**0.11**	**0.47**	**1.3**	**0.31**	**0.17**	**0.67**
Phenol	mg/kg	250,000	0.073 U	0.074 U	N/A	0.07 U	0.071 U	N/A	0.069 U	0.072 U	N/A	0.074 U	0.073 U	0.076 U	0.077 U	0.073 U	0.071 U	0.072 U	0.076 U
Pyrene	mg/kg	23,000	**0.3**	**0.63**	N/A	**0.49**	**0.92**	N/A	**0.089**	**0.3**	N/A	**0.12**	**0.057**	**0.16**	**0.71**	**0.89**	**0.37**	**0.4**	**2**
PCBs																			
Aroclor 1242	mg/kg	0.97	0.0571 U	N/A	N/A	0.0605 U	N/A	N/A	0.567 U	N/A	N/A	0.0598 U	0.0533 U	0.0547 U	N/A	0.0958 U	N/A	0.0522 U	N/A
Aroclor 1248	mg/kg	0.94	0.0571 U	N/A	N/A	**0.042 J**	N/A	N/A	**14.9**	N/A	N/A	0.0598 U	0.0533 U	0.0547 U	N/A	**0.0901 J**	N/A	0.0522 U	N/A
Aroclor 1254	mg/kg	0.97	0.0571 U	N/A	N/A	**0.0703**	N/A	N/A	0.567 U	N/A	N/A	0.0598 U	0.0533 U	0.0547 U	N/A	0.0958 U	N/A	**0.0287 J**	N/A
Aroclor 1260	mg/kg	0.99	0.0571 U	N/A	N/A	0.0605 U	N/A	N/A	0.567 U	N/A	N/A	0.0598 U	0.0533 U	0.0547 U	N/A	0.0958 U	N/A	0.0522 U	N/A
Aroclor 1262	mg/kg		0.0571 U	N/A	N/A	0.0605 U	N/A	N/A	0.567 U	N/A	N/A	0.0598 U	0.0533 U	0.0547 U	N/A	0.0958 U	N/A	**0.0499 J**	N/A
Aroclor 1268	mg/kg		**0.111**	N/A	N/A	0.0605 U	N/A	N/A	0.567 U	N/A	N/A	0.0598 U	0.0533 U	**0.0844**	N/A	0.0958 U	N/A	0.0522 U	N/A
PCBs (total)	mg/kg	0.97	**0.111**	N/A	N/A	**0.1123**	N/A	N/A	**14.9**	N/A	N/A	0.0598 U	0.0533 U	**0.0844**	N/A	**0.0901 J**	N/A	**0.0786**	N/A
TPH/Oil & Grease																			
Diesel Range Organics	mg/kg	6,200	**32.9**	**38.3**	N/A	**153**	**135**	N/A	**28.3**	**58.5**	N/A	**41.5**	**18.5**	**40.7**	**84.5**	**149**	**38.6**	**50.9**	**47.5**
Gasoline Range Organics	mg/kg	6,200	13.2 U	19.9 U	N/A	10.5 U	12.4 U	N/A	10.4 U	10.4 U	N/A	10.1 U	9.3 U	17 U	18 U	**37**	9.9 U	9.7 U	12.7 U
Oil & Grease	mg/kg	6,200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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
^ PAH compounds were analyzed via SIM
Not included in SLRA due to excavation

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.
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 or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this analyte in the sample.

Table 1 - Sub-Parcel B22-2
Summary of Organics Detected in Soil

Parameter	Units	PAL	B22-067-SB-1* 5/20/2016	B22-067-SB-7* 5/20/2016	B22-069-SB-1* 5/25/2016	B22-069-SB-4* 5/25/2016	B22-071-SB-1* 5/18/2016	B22-071-SB-4* 5/18/2016	B22-097-SB-1* 5/24/2016	B22-097-SB-9* 5/24/2016	B22-099-SB-1* 5/19/2016	B22-099-SB-7* 5/19/2016	B22-099-SB-9.5* 5/19/2016	B22-100-SB-1* 5/18/2016	B22-100-SB-6* 5/18/2016	B22-100-SB-10 5/18/2016	B22-101-SB-1* 5/20/2016	B22-101-SB-5* 5/20/2016	B22-102-SB-1* 5/20/2016
Volatile Organic Compounds																			
1,1,1-Trichloroethane	mg/kg	36,000	0.0071 U	0.0045 U	0.27 U	0.0052 U	0.003 U	0.0037 U	0.0068 U	0.0069 U	0.0052 U	0.0055 U	N/A	0.0052 U	0.006 U	N/A	0.0052 U	0.0049 U	0.0056 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	mg/kg	170,000	0.071 U	0.045 U	2.7 U	0.052 U	0.03 U	0.037 U	0.068 U	0.069 U	0.052 U	0.055 U	N/A	0.052 U	0.06 U	N/A	0.052 U	0.049 U	0.056 U
1,1-Dichloroethane	mg/kg	16	0.0071 U	0.0045 U	0.27 U	0.0052 U	0.003 U	0.0037 U	0.0068 U	0.0069 U	0.0052 U	0.0055 U	N/A	0.0052 U	0.006 U	N/A	0.0052 U	0.0049 U	0.0056 U
1,1-Dichloroethene	mg/kg	1,000	0.0071 U	0.0045 U	0.27 U	0.0052 U	0.003 U	0.0037 U	0.0068 U	0.0069 U	0.0052 U	0.0055 U	N/A	0.0052 U	0.006 U	N/A	0.0052 U	0.0049 U	0.0056 U
1,2,3-Trichlorobenzene	mg/kg	930	0.0071 U	0.0045 U	0.27 U	0.0052 U	0.003 U	0.0037 U	0.0068 U	0.0069 U	0.0052 U	0.0055 U	N/A	0.0052 U	0.006 U	N/A	0.0052 U	0.0049 U	0.0056 U
1,2-Dichloroethane	mg/kg	2	0.0071 U	0.0045 U	0.27 U	0.0052 U	0.003 U	0.0037 U	0.0068 U	0.0069 U	0.0052 U	0.0055 U	N/A	0.0052 U	0.006 U	N/A	0.0052 U	0.0049 U	0.0056 U
1,2-Dichloroethene (Total)	mg/kg	2,300	0.014 U	0.0091 U	0.53 U	0.01 U	0.006 U	0.0075 U	0.014 U	0.014 U	0.01 U	0.011 U	N/A	0.01 U	0.012 U	N/A	0.01 U	0.0097 U	0.011 U
2-Butanone (MEK)	mg/kg	190,000	0.014 U	**0.0038 J**	0.53 U	0.01 U	0.006 U	0.0075 U	0.014 U	0.014 U	0.01 U	0.011 U	N/A	0.01 U	0.012 U	N/A	0.01 U	0.0097 U	0.011 U
2-Hexanone	mg/kg	1,300	0.014 U	0.0091 U	0.53 U	0.01 U	0.006 U	0.0075 U	0.014 U	0.014 U	0.01 U	0.011 U	N/A	0.01 U	0.012 U	N/A	0.01 U	0.0097 U	0.011 U
4-Methyl-2-pentanone (MIBK)	mg/kg	56,000	0.014 U	0.0091 U	0.53 U	0.01 U	0.006 U	0.0075 U	0.014 U	0.014 U	0.01 U	0.011 U	N/A	0.01 U	0.012 U	N/A	0.01 U	0.0097 U	0.011 U
Acetone	mg/kg	670,000	0.014 U	**0.018**	0.53 U	0.01 U	**0.0037 J**	**0.0054 J**	0.014 U	0.014 U	**0.0079 J**	**0.0083 J**	N/A	0.01 U	0.012 U	N/A	0.01 U	0.0097 U	0.011 U
Benzene	mg/kg	5.1	0.0071 U	0.0045 U	0.27 U	0.0052 U	0.003 U	0.0037 U	0.0068 U	0.0069 U	0.0052 U	0.0055 U	N/A	0.0052 U	0.006 U	N/A	0.0052 U	0.0049 U	0.0056 U
Carbon tetrachloride	mg/kg	2.9	0.0071 U	0.0045 U	0.27 U	0.0052 U	0.003 U	0.0037 U	0.0068 U	0.0069 U	0.0052 U	0.0055 U	N/A	0.0052 U	0.006 U	N/A	0.0052 U	0.0049 U	0.0056 U
Chloroform	mg/kg	1.4	0.0071 U	0.0045 U	0.27 U	0.0052 U	0.003 U	0.0037 U	0.0068 U	0.0069 U	0.0052 U	0.0055 U	N/A	0.0052 U	0.006 U	N/A	0.0052 U	0.0049 U	0.0056 U
cis-1,2-Dichloroethene	mg/kg	2,300	0.0071 U	0.0045 U	0.27 U	0.0052 U	0.003 U	0.0037 U	0.0068 U	0.0069 U	0.0052 U	0.0055 U	N/A	0.0052 U	0.006 U	N/A	0.0052 U	0.0049 U	0.0056 U
Cyclohexane	mg/kg	27,000	0.014 U	0.0091 U	0.53 U	0.01 U	0.006 U	0.0075 U	0.014 U	0.014 U	0.01 U	0.011 U	N/A	0.01 U	0.012 U	N/A	0.01 U	0.0097 U	0.011 U
Ethylbenzene	mg/kg	25	0.0071 U	0.0045 U	0.27 U	0.0052 U	0.003 U	0.0037 U	0.0068 U	0.0069 U	0.0052 U	0.0055 U	N/A	0.0052 U	0.006 U	N/A	0.0052 U	0.0049 U	0.0056 U
Isopropylbenzene	mg/kg	9,900	0.0071 U	**0.005**	0.27 U	0.0052 U	0.003 U	0.0037 U	0.0068 U	0.0069 U	0.0052 U	0.0055 U	N/A	0.0052 U	0.006 U	N/A	0.0052 U	0.0049 U	0.0056 U
Methyl Acetate	mg/kg	1,200,000	0.071 U	0.045 U	**0.12 J**	0.052 U	0.03 U	0.037 U	0.068 U	0.069 U	0.052 U	0.055 U	N/A	0.052 U	0.06 U	N/A	0.052 U	0.049 U	0.056 U
Styrene	mg/kg	35,000	0.0071 U	0.0045 U	0.27 U	0.0052 U	0.003 U	0.0037 U	0.0068 U	0.0069 U	0.0052 U	0.0055 U	N/A	0.0052 U	0.006 U	N/A	0.0052 U	0.0049 U	0.0056 U
Tetrachloroethene	mg/kg	100	0.0071 U	0.0045 U	0.27 U	0.0052 U	0.003 U	0.0037 U	0.0068 U	0.0069 U	**0.014**	0.0055 U	N/A	0.0052 U	0.006 U	N/A	0.0052 U	0.0049 U	0.0056 U
Toluene	mg/kg	47,000	0.0071 U	0.0045 U	0.27 U	0.0052 U	0.003 U	0.0037 U	0.0068 U	0.0069 U	0.0052 U	0.0055 U	N/A	0.0052 U	0.006 U	N/A	0.0052 U	0.0049 U	0.0056 U
trans-1,2-Dichloroethene	mg/kg	23,000	0.0071 U	0.0045 U	0.27 U	0.0052 U	0.003 U	0.0037 U	0.0068 U	0.0069 U	0.0052 U	0.0055 U	N/A	0.0052 U	0.006 U	N/A	0.0052 U	0.0049 U	0.0056 U
Trichloroethene	mg/kg	6	0.0071 U	0.0045 U	0.27 U	0.0052 U	0.003 U	0.0037 U	0.0068 U	0.0069 U	0.0052 U	0.0055 U	N/A	0.0052 U	0.006 U	N/A	0.0052 U	0.0049 U	0.0056 U
Vinyl chloride	mg/kg	1.7	0.0071 U	0.0045 U	0.27 U	0.0052 U	0.003 U	0.0037 U	0.0068 U	0.0069 U	0.0052 U	0.0055 U	N/A	0.0052 U	0.006 U	N/A	0.0052 U	0.0049 U	0.0056 U
Xylenes	mg/kg	2,800	0.021 U	0.014 U	0.8 U	0.016 U	0.009 U	0.011 U	0.02 U	0.021 U	0.016 U	0.017 U	N/A	0.016 U	0.018 U	N/A	0.016 U	0.015 U	0.017 U
Semi-Volatile Organic Compounds^																			
1,1-Biphenyl	mg/kg	200	0.069 U	**0.059 J**	0.072 U	0.083 U	**0.049 J**	**0.017 J**	**0.062 J**	**0.049 J**	**0.016 J**	0.071 U	N/A	**0.063 J**	**0.028 J**	N/A	0.075 U	0.082 U	0.073 U
1,2,4,5-Tetrachlorobenzene	mg/kg	350	0.069 U	0.075 U	0.072 U	0.083 U	0.075 U	0.076 U	**0.1**	0.072 U	0.071 U	0.071 U	N/A	0.074 U	0.072 U	N/A	0.075 U	0.082 U	0.073 U
2,4-Dimethylphenol	mg/kg	16,000	0.069 U	**0.37**	0.072 U	0.083 U	0.075 U	0.076 U	0.071 U	0.072 U	0.071 U	0.071 U	N/A	0.074 U	**0.014 J**	N/A	0.075 U	0.082 U	0.073 U
2-Chloronaphthalene	mg/kg	60,000	0.069 U	0.075 U	0.072 U	0.083 U	0.075 U	0.076 U	**0.051 J**	0.072 U	0.071 U	0.071 U	N/A	0.074 U	0.072 U	N/A	0.075 U	0.082 U	0.073 U
2-Methylnaphthalene	mg/kg	3,000	0.0067 U	**0.057**	**0.026 J**	0.0084 U	**0.42**	**0.13**	**19.2**	**0.65**	**0.084**	**0.024**	N/A	**0.16**	**0.1**	N/A	0.076 U	0.0082 U	0.075 U
2-Methylphenol	mg/kg	41,000	0.069 U	0.075 U	0.072 U	0.083 U	0.075 U	0.076 U	0.071 U	0.072 U	0.071 U	0.071 U	N/A	0.074 U	0.072 U	N/A	0.075 U	0.082 U	0.073 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	0.14 U	0.15 U	0.14 U	0.17 U	0.15 U	0.15 U	0.14 U	0.14 U	0.14 U	0.14 U	N/A	**0.028 J**	0.14 U	N/A	0.15 U	0.16 U	0.15 U
3,3'-Dichlorobenzidine	mg/kg	5.1	0.069 U	0.075 U	0.072 U	0.083 U	0.075 U	0.076 U	0.071 U	0.072 U	0.071 U	0.071 U	N/A	0.074 U	0.072 U	N/A	0.075 U	0.082 U	0.073 U
4-Nitroaniline	mg/kg	110	0.17 U	0.19 U	0.18 U	0.21 U	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U	0.18 U	N/A	0.19 U	0.18 U	N/A	0.19 U	0.21 U	0.18 U
Acenaphthene	mg/kg	45,000	**0.00049 J**	**0.036**	0.073 U	0.0084 U	**0.046 J**	**0.035**	**0.25**	**0.0084 J**	**0.02 J**	**0.011**	N/A	**0.029 J**	**0.11**	N/A	0.076 U	0.0082 U	0.075 U
Acenaphthylene	mg/kg	45,000	**0.00095 J**	**0.026**	0.073 U	0.0084 U	**0.093**	**0.034**	**0.066**	**0.24**	**0.41**	**0.02**	N/A	**0.062 J**	**0.04 J**	N/A	**0.029 J**	0.0082 U	**0.043 J**
Acetophenone	mg/kg	120,000	0.069 U	**0.88**	0.072 U	0.083 U	**0.022 J**	0.076 U	0.071 U	**0.093**	0.071 U	0.071 U	N/A	0.074 U	0.072 U	N/A	0.075 U	0.082 U	**0.18**
Anthracene	mg/kg	230,000	0.0012 B	**0.022**	**0.0063 J**	0.0084 U	**0.2**	**0.23**	**0.081**	**0.058 J**	**0.36**	**0.077**	N/A	**0.23**	**0.41**	N/A	**0.022 J**	0.0082 U	**0.074 J**
Benz[a]anthracene	mg/kg	21	0.0052 B	**0.019**	0.073 U	0.0084 U	**0.9**	**0.88**	**0.4**	**0.14**	**1.5**	**0.81**	N/A	**0.5**	**0.82**	N/A	**0.056 J**	**0.0016 J**	**0.99**
Benzaldehyde	mg/kg	120,000	0.069 U	0.075 U	0.072 U	0.083 U	**0.042 J**	0.076 U	**0.047 J**	**0.12**	**0.023 J**	0.071 U	N/A	0.074 U	0.072 U	N/A	**0.037 J**	0.082 U	**0.45**
Benzo[a]pyrene	mg/kg	2.1	**0.0054 J**	**0.011**	0.073 U	0.0084 U	**0.94**	**1.4**	**0.2**	**0.097**	**1.6**	**0.98**	**0.1**	**0.35**	**0.66**	**0.47**	**0.051 J**	0.0082 U	**0.76**
Benzo[b]fluoranthene	mg/kg	21	**0.016**	0.0077 U	**0.033 J**	0.0084 U	**2.2**	**1.9**	**0.76**	**0.2**	**4.3**	**2.1**	N/A	**0.77**	**1.3**	N/A	**0.16**	**0.0022 J**	**2.1**
Benzo[g,h,i]perylene	mg/kg		**0.003 J**	**0.012**	0.073 U	0.0084 U	**0.23**	**0.65**	**0.14**	**0.11**	**0.67**	**0.83**	N/A	**0.22**	**0.43**	N/A	**0.03 J**	0.0082 U	**0.19**
Benzo[k]fluoranthene	mg/kg	210	**0.015**	0.0077 U	**0.014 J**	0.0084 U	**2.1**	**1.6**	**0.66**	**0.17**	**3.6**	**2.1**	N/A	**0.73**	**1.2**	N/A	**0.13**	**0.0018 J**	**1.8**
bis(2-Ethylhexyl)phthalate	mg/kg	160	0.069 U	0.075 U	0.072 U	0.083 U	0.075 U	0.076 U	0.071 U	0.072 U	0.071 U	0.071 U	N/A	**0.026 J**	**0.026 J**	N/A	**0.031 J**	0.082 U	**0.44**
Carbazole	mg/kg		0.069 U	0.075 U	0.072 U	0.083 U	**0.26**	**0.12**	**0.055 J**	**0.025 J**	**0.072**	**0.034 J**	N/A	**0.051 J**	**0.16**	N/A	0.075 U	0.082 U	**0.095**
Chrysene	mg/kg	2,100	0.0084 B	**0.12**	0.073 U	0.0084 U	**0.93**	**0.92**	**0.55**	**0.13**	**1.6**	**0.88**	N/A	**0.56**	**0.74**	N/A	**0.045 J**	**0.00088 J**	**0.97**
Dibenz[a,h]anthracene	mg/kg	2.1	0.0067 U	**0.0043 J**	0.073 U	0.0084 U	**0.091**	**0.29**	**0.076**	**0.021 J**	**0.33**	**0.27**	N/A	**0.057 J**	**0.12**	N/A	0.076 U	0.0082 U	**0.086**
Diethylphthalate	mg/kg	660,000	0.069 U	0.075 U	0.072 U	0.083 U	0.075 U	0.076 U	0.071 U	0.072 U	**0.15**	0.071 U	N/A	0.074 U	0.072 U	N/A	0.075 U	0.082 U	0.073 U
Di-n-butylphthalate	mg/kg	82,000	0.069 U	0.075 U	0.048 B	0.083 U	0.075 U	0.076 U	0.071 U	0.072 U	0.071 U	0.071 U	N/A	0.074 U	0.072 U	N/A	0.075 U	0.082 U	**0.021 J**
Di-n-ocytlphthalate	mg/kg	8,200	0.069 U	0.075 U	0.072 U	0.083 U	0.075 U	0.076 U	0.071 U	0.072 U	0.071 U	0.071 U	N/A	0.074 U	0.072 U	N/A	0.075 U	0.082 U	0.073 U
Fluoranthene	mg/kg	30,000	0.0095 B	**0.054**	0.073 U	0.0084 U	**1.5**	**1.4**	**0.93**	**0.26**	**1.5**	**1**	N/A	**1.2**	**1.8**	N/A	**0.046 J**	**0.0015 J**	**1.2**
Fluorene	mg/kg	30,000	**0.00073 J**	**0.041**	0.073 U	0.0084 U	**0.043 J**	**0.022**	**0.15**	**0.014 J**	**0.036 J**	**0.0058 J**	N/A	**0.15**	**0.18**	N/A	0.076 U	0.0082 U	0.075 U
Indeno[1,2,3-c,d]pyrene	mg/kg	21	**0.0027 J**	**0.0092**	0.073 U	0.0084 U	**0.27**	**0.76**	**0.15**	**0.066 J**	**0.71**	**0.75**	N/A	**0.21**	**0.4**	N/A	**0.026 J**	0.0082 U	**0.19**
Naphthalene	mg/kg	8.6	**0.0019 J**	**0.31**	0.073 U	**0.0034 J**	**0.65**	**0.14**	**2.9**	**0.8**	**0.094**	**0.029**	N/A	**0.39**	**0.17**	N/A	0.076 U	0.0082 U	0.075 U
N-Nitrosodiphenylamine	mg/kg	470	0.069 U	0.075 U	0.072 U	0.083 U	0.075 U	0.076 U	0.071 U	0.072 U	0.071 U	0.071 U	N/A	0.074 U	0.072 U	N/A	0.075 U	0.082 U	0.073 U
Pentachlorophenol	mg/kg	4	0.17 U	0.19 U	0.18 U	0.21 U	0.19 U	0.19 U	0.18 U	0.18 U	0.18 U	0.18 U	N/A	0.19 U	0.18 U	N/A	0.19 U	0.21 U	0.18 U
Phenanthrene	mg/kg		0.0046 B	**0.047**	**0.015 J**	0.0084 U	**0.79**	**0.9**	**0.94**	**0.44**	**0.38**	**0.28**	N/A	**0.66**	**1.4**	N/A	**0.028 J**	**0.002 J**	**0.14**
Phenol	mg/kg	250,000	0.069 U	**0.21**	0.072 U	0.083 U	0.075 U	0.076 U	**0.049 J**	0.072 U	**0.025 J**	0.071 U	N/A	**0.023 J**	0.072 U	N/A	**0.024 J**	0.082 U	**0.024 J**
Pyrene	mg/kg	23,000	0.0081 B	**0.067**	0.073 U	0.0084 U	**1.3**	**1.5**	**0.64**	**0.26**	**1.5**	**1.1**	N/A	**0.93**	**1.5**	N/A	**0.053 J**	**0.0015 J**	**1.2**
PCBs																			
Aroclor 1242	mg/kg	0.97	0.054 U	N/A	0.0554 U	N/A	0.0552 U	N/A	0.054 U	N/A	0.0524 U	N/A	N/A	0.0561 U	N/A	N/A	0.0549 U	N/A	0.0598 U
Aroclor 1248	mg/kg	0.94	**0.0464 J**	N/A	**0.0382 J**	N/A	0.0552 U	N/A	0.054 U	N/A	0.0524 U	N/A	N/A	0.0561 U	N/A	N/A	**0.16**	N/A	0.0598 U
Aroclor 1254	mg/kg	0.97	**0.0476 J**	N/A	0.0554 U	N/A	0.0552 U	N/A	0.054 U	N/A	0.0524 U	N/A	N/A	**0.0294 J**	N/A	N/A	**0.216**	N/A	**0.132**
Aroclor 1260	mg/kg	0.99	0.054 U	N/A	0.0554 U	N/A	**0.0272 J**	N/A	0.054 U	N/A	0.0524 U	N/A	N/A	0.0561 U	N/A	N/A	0.0549 U	N/A	0.0598 U
Aroclor 1262	mg/kg		**0.235**	N/A	0.0554 U	N/A	0.0552 U	N/A	0.054 U	N/A	**0.167**	N/A	N/A	**0.0658**	N/A	N/A	**0.22**	N/A	**0.187**
Aroclor 1268	mg/kg		0.054 U	N/A	0.0554 U	N/A	0.0552 U	N/A	**0.0603**	N/A	0.0524 U	N/A	N/A	0.0561 U	N/A	N/A	0.0549 U	N/A	0.0598 U
PCBs (total)	mg/kg	0.97	**0.329**	N/A	**0.0382 J**	N/A	**0.0272 J**	N/A	**0.0603**	N/A	**0.167**	N/A	N/A	**0.0952**	N/A	N/A	**0.596**	N/A	**0.319**
TPH/Oil & Grease																			
Diesel Range Organics	mg/kg	6,200	**61.7**	**575**	**266**	**5.5 J**	**70.7**	**77.4**	**38.5**	**70**	**122**	**89**	N/A	**268**	**366**	N/A	**136**	**3.4 J**	**274**
Gasoline Range Organics	mg/kg	6,200	15.1 U	**150**	10.9 U	9.7 U	7.8 U	9.6 U	13.9 U	**7.8 J**	10.2 U	10 U	N/A	11.8 U	10.1 U	N/A	13.3 U	9.6 U	10.8 U
Oil & Grease	mg/kg	6,200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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
^ PAH compounds were analyzed via SIM
Not included in SLRA due to excavation

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.
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 or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this analyte in the sample.

Table 1 - Sub-Parcel B22-2
Summary of Organics Detected in Soil

Parameter	Units	PAL	B22-102-SB-5*	B22-106-SB-1*	B22-106-SB-8.5*	B22-109-SB-1*	B22-109-SB-4.5*	B22-110-SB-1*	B22-110-SB-4*	B22-111-SB-1*	B22-111-SB-8*	B22-112-SB-1*	B22-112-SB-4*	B22-112-SB-10*	B22-113-SB-1*	B22-113-SB-4*	B22-114-SB-1*	B22-114-SB-8*	B22-115-SB-1
			5/20/2016	5/25/2016	5/25/2016	5/20/2016	5/20/2016	5/20/2016	5/20/2016	5/25/2016	5/25/2016	5/20/2016	5/20/2016	5/20/2016	5/20/2016	5/20/2016	5/19/2016	5/19/2016	5/19/2016
Volatile Organic Compounds																			
1,1,1-Trichloroethane	mg/kg	36,000	0.0049 U	0.0066 U	0.0045 U	**0.023**	**0.0063**	0.0072 U	0.0065 U	0.006 U	0.0048 U	0.0054 U	0.0052 U	N/A	0.0048 U	0.008 U	0.0046 U	0.0051 U	0.0051 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	mg/kg	170,000	0.049 U	0.066 U	0.045 U	0.053 U	0.06 U	0.072 U	0.065 U	0.06 U	0.048 U	0.054 U	0.052 U	N/A	0.048 U	**0.0091 J**	0.046 U	0.051 U	0.051 U
1,1-Dichloroethane	mg/kg	16	**0.32**	0.0066 U	0.0045 U	**0.1**	**0.018**	0.0072 U	0.0065 U	0.006 U	0.0048 U	0.0054 U	0.0052 U	N/A	0.0048 U	0.008 U	0.0046 U	0.0051 U	0.0051 U
1,1-Dichloroethene	mg/kg	1,000	**0.018**	0.0066 U	0.0045 U	0.0053 U	0.006 U	0.0072 U	0.0065 U	0.006 U	0.0048 U	0.0054 U	0.0052 U	N/A	0.0048 U	0.008 U	0.0046 U	0.0051 U	0.0051 U
1,2,3-Trichlorobenzene	mg/kg	930	0.0049 U	0.0066 U	0.0045 U	0.0053 U	0.006 U	0.0072 U	0.0065 U	0.006 U	0.0048 U	0.0054 U	0.0052 U	N/A	0.0048 U	0.008 U	0.0046 U	0.0051 U	0.0051 U
1,2-Dichloroethane	mg/kg	2	0.0049 U	0.0066 U	0.0045 U	0.0053 U	0.006 U	0.0072 U	0.0065 U	0.006 U	0.0048 U	0.0054 U	0.0052 U	N/A	0.0048 U	0.008 U	0.0046 U	0.0051 U	0.0051 U
1,2-Dichloroethene (Total)	mg/kg	2,300	0.0097 U	0.013 U	0.0091 U	0.011 U	0.012 U	0.014 U	0.013 U	0.012 U	0.0096 U	0.011 U	**0.0093 J**	N/A	0.0096 U	0.016 U	0.0091 U	0.01 U	0.01 U
2-Butanone (MEK)	mg/kg	190,000	0.0097 U	0.013 U	0.0091 U	0.011 U	0.012 U	**0.1**	**0.006 J**	0.012 U	0.0096 U	0.011 U	0.01 U	N/A	0.0096 U	0.016 U	**0.003 J**	0.01 U	0.01 U
2-Hexanone	mg/kg	1,300	0.0097 U	0.013 U	0.0091 U	0.011 U	0.012 U	**0.019**	0.013 U	0.012 U	0.0096 U	0.011 U	0.01 U	N/A	0.0096 U	0.016 U	0.0091 U	0.01 U	0.01 U
4-Methyl-2-pentanone (MIBK)	mg/kg	56,000	0.0097 U	0.013 U	0.0091 U	0.011 U	0.012 U	**0.0069 J**	0.013 U	0.012 U	0.0096 U	0.011 U	0.01 U	N/A	0.0096 U	0.016 U	0.0091 U	0.01 U	0.01 U
Acetone	mg/kg	670,000	0.0097 U	0.013 U	0.0091 U	0.011 U	0.012 U	**0.37**	**0.0079 J**	0.012 U	0.0096 U	0.011 U	0.01 U	N/A	0.0096 U	0.016 U	**0.026**	0.01 U	0.01 U
Benzene	mg/kg	5.1	0.0049 U	0.0066 U	0.0045 U	0.0053 U	0.006 U	**0.0046 J**	**0.0019 J**	0.006 U	0.0048 U	0.0054 U	0.0052 U	N/A	0.0048 U	0.008 U	0.0046 U	0.0051 U	0.0051 U
Carbon tetrachloride	mg/kg	2.9	0.0049 U	0.0066 U	0.0045 U	0.0053 U	0.006 U	0.0072 U	0.0065 U	0.006 U	0.0048 U	0.0054 U	0.0052 U	N/A	0.0048 U	0.008 U	0.0046 U	0.0051 U	0.0051 U
Chloroform	mg/kg	1.4	0.0049 U	0.0066 U	0.0045 U	0.0053 U	0.006 U	0.0072 U	0.0065 U	0.006 U	0.0048 U	0.0054 U	0.0052 U	N/A	0.0048 U	0.008 U	0.0046 U	0.0051 U	0.0051 U
cis-1,2-Dichloroethene	mg/kg	2,300	0.0049 U	0.0066 U	0.0045 U	0.0053 U	0.006 U	0.0072 U	0.0065 U	0.006 U	0.0048 U	0.0054 U	**0.0071**	N/A	0.0048 U	0.008 U	0.0046 U	0.0051 U	0.0051 U
Cyclohexane	mg/kg	27,000	0.0097 U	0.013 U	0.0091 U	0.011 U	0.012 U	0.014 U	0.013 U	0.012 U	0.0096 U	0.011 U	0.01 U	N/A	0.0096 U	0.016 U	0.0091 U	0.01 U	0.01 U
Ethylbenzene	mg/kg	25	0.0049 U	0.0066 U	0.0045 U	0.0053 U	0.006 U	**0.0069 J**	0.0065 U	0.006 U	0.0048 U	0.0054 U	0.0052 U	N/A	0.0048 U	0.008 U	0.0046 U	0.0051 U	0.0051 U
Isopropylbenzene	mg/kg	9,900	0.0049 U	0.0066 U	0.0045 U	0.0053 U	0.006 U	0.0072 U	0.0065 U	0.006 U	0.0048 U	0.0054 U	0.0052 U	N/A	0.0048 U	0.008 U	0.0046 U	0.0051 U	0.0051 U
Methyl Acetate	mg/kg	1,200,000	0.049 U	0.066 U	0.045 U	0.053 U	0.06 U	**0.0085 J**	0.065 U	0.06 U	0.048 U	0.054 U	0.052 U	N/A	0.048 U	0.08 U	0.046 U	0.051 U	0.051 U
Styrene	mg/kg	35,000	0.0049 U	0.0066 U	0.0045 U	0.0053 U	0.006 U	**0.065**	0.0065 U	0.006 U	0.0048 U	0.0054 U	0.0052 U	N/A	0.0048 U	0.008 U	0.0046 U	0.0051 U	0.0051 U
Tetrachloroethene	mg/kg	100	0.0049 U	0.0066 U	0.0045 U	0.0053 U	0.006 U	0.0072 U	0.0065 U	0.006 U	0.0048 U	0.0054 U	0.0052 U	N/A	0.0048 U	0.008 U	0.0046 U	0.0051 U	0.0051 U
Toluene	mg/kg	47,000	0.0049 U	0.0066 U	0.0045 U	0.0053 U	0.006 U	**0.0029 J**	0.0065 U	0.006 U	0.0048 U	0.0054 U	0.0052 U	N/A	0.0048 U	0.008 U	0.0046 U	0.0051 U	0.0051 U
trans-1,2-Dichloroethene	mg/kg	23,000	0.0049 U	0.0066 U	0.0045 U	0.0053 U	0.006 U	0.0072 U	0.0065 U	0.006 U	0.0048 U	0.0054 U	0.0052 U	N/A	0.0048 U	0.008 U	0.0046 U	0.0051 U	0.0051 U
Trichloroethene	mg/kg	6	0.0049 U	0.0066 U	0.0045 U	**0.037**	**0.0073**	**0.02**	0.0065 U	0.006 U	0.0048 U	**0.016**	**4.3**	N/A	0.0048 U	0.008 U	0.0046 U	0.0051 U	0.0051 U
Vinyl chloride	mg/kg	1.7	0.0049 U	0.0066 U	0.0045 U	0.0053 U	0.006 U	0.0072 U	0.0065 U	0.006 U	0.0048 U	0.0054 U	0.0052 U	N/A	0.0048 U	0.008 U	0.0046 U	0.0051 U	0.0051 U
Xylenes	mg/kg	2,800	0.015 U	0.02 U	0.014 U	0.016 U	0.018 U	0.022 U	0.02 U	0.018 U	0.014 U	0.016 U	0.016 U	N/A	0.014 U	0.024 U	0.014 U	0.015 U	0.015 U
Semi-Volatile Organic Compounds^																			
1,1-Biphenyl	mg/kg	200	0.08 U	0.078 U	0.081 U	0.081 U	0.086 U	0.074 U	**0.05 J**	0.075 U	0.082 U	0.075 U	**0.015 J**	N/A	0.076 U	**0.044 J**	0.072 U	0.084 U	0.084 U
1,2,4,5-Tetrachlorobenzene	mg/kg	350	0.08 U	0.078 U	0.081 U	0.081 U	0.086 U	0.074 U	0.077 U	0.075 U	0.082 U	0.075 U	0.072 U	N/A	0.076 U	0.072 U	0.072 U	0.084 U	0.084 U
2,4-Dimethylphenol	mg/kg	16,000	0.08 U	0.078 U	0.081 U	0.081 U	0.086 U	0.074 U	0.077 U	0.075 U	0.082 U	0.075 U	0.072 U	N/A	0.076 U	0.072 U	0.072 U	0.084 U	0.084 R
2-Chloronaphthalene	mg/kg	60,000	0.08 U	0.078 U	0.081 U	0.081 U	0.086 U	0.074 U	0.077 U	0.075 U	0.082 U	0.075 U	0.072 U	N/A	0.076 U	0.072 U	0.072 U	0.084 U	0.084 U
2-Methylnaphthalene	mg/kg	3,000	0.082 U	**0.004 J**	0.008 U	0.082 U	0.0086 U	**0.02 J**	**0.12**	**0.0062 J**	0.0082 U	**0.021 J**	0.073 U	N/A	**0.011**	**0.2**	**0.022**	**0.055**	**0.013**
2-Methylphenol	mg/kg	41,000	0.08 U	0.078 U	0.081 U	0.081 U	0.086 U	0.074 U	0.077 U	0.075 U	0.082 U	0.075 U	0.072 U	N/A	0.076 U	0.072 U	0.072 U	0.084 U	0.084 R
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	0.16 U	0.16 U	0.16 U	0.16 U	0.17 U	0.15 U	**1.5**	0.15 U	0.16 U	0.15 U	0.14 U	N/A	0.15 U	0.14 U	0.14 U	0.17 U	0.17 R
3,3'-Dichlorobenzidine	mg/kg	5.1	0.08 U	0.078 U	0.081 U	0.081 U	0.086 U	0.074 U	0.077 U	0.075 U	0.082 U	0.075 U	0.072 U	N/A	0.076 U	0.072 U	0.072 U	0.084 U	0.084 UJ
4-Nitroaniline	mg/kg	110	0.2 U	0.2 U	0.2 U	0.2 U	0.21 U	0.19 U	0.19 U	0.19 U	0.21 U	**0.69**	0.18 U	N/A	0.19 U	0.18 U	0.18 U	0.21 U	0.21 U
Acenaphthene	mg/kg	45,000	0.082 U	**0.0023 J**	0.008 U	**0.0091 J**	0.0086 U	**0.0093 J**	**0.014 J**	**0.0017 J**	**0.00083 J**	**0.011 J**	**0.0085 J**	N/A	**0.0039 J**	**0.016 J**	**0.0046 J**	**0.052**	**0.0028 J**
Acenaphthylene	mg/kg	45,000	**0.0087 J**	**0.0012 J**	0.008 U	**0.02 J**	0.0086 U	**0.034 J**	**0.11**	**0.0031 J**	0.0082 U	**0.05 J**	**0.05 J**	N/A	**0.0013 J**	**0.017 J**	**0.0098**	**0.023**	**0.009**
Acetophenone	mg/kg	120,000	0.08 U	0.078 U	0.081 U	0.081 U	0.086 U	**1.9**	0.077 U	0.075 U	0.082 U	0.075 U	0.072 U	N/A	0.076 U	0.072 U	0.072 U	0.084 U	0.084 U
Anthracene	mg/kg	230,000	**0.012 J**	**0.01**	0.008 U	**0.06 J**	**0.0022 J**	**0.056 J**	**0.17**	**0.013**	**0.0062 J**	0.08 B	**0.14**	N/A	**0.01**	**0.097**	**0.023**	**0.072**	**0.0053 J**
Benz[a]anthracene	mg/kg	21	**0.065 J**	**0.033**	**0.0019 J**	**0.2**	**0.0093**	**0.12**	**0.53**	**0.051**	**0.0038 J**	**0.4**	**0.61**	N/A	0.018 B	**0.57**	**0.048**	**0.14**	**0.022**
Benzaldehyde	mg/kg	120,000	0.08 U	0.078 U	0.081 U	0.081 U	0.086 U	**0.35**	**0.12**	0.075 U	0.082 U	0.075 U	0.072 U	N/A	**0.022 J**	**0.063 J**	0.072 U	0.084 U	0.084 R
Benzo[a]pyrene	mg/kg	2.1	**0.051 J**	**0.029**	0.008 U	**0.18**	**0.0061 J**	**0.17**	**0.54**	**0.038**	**0.0023 J**	**0.4**	**0.56**	**0.068 J**	**0.014**	**0.66**	**0.035**	**0.15**	**0.026**
Benzo[b]fluoranthene	mg/kg	21	**0.13**	**0.057**	**0.0012 J**	**0.4**	**0.018**	**0.51**	**1.2**	**0.12**	**0.006 J**	**1**	**1.4**	N/A	**0.034**	**1.5**	**0.09**	**0.37**	**0.044**
Benzo[g,h,i]perylene	mg/kg		**0.017 J**	**0.018**	0.008 U	**0.077 J**	**0.0023 J**	**0.1**	**0.19**	**0.038**	0.0082 U	**0.11**	**0.14**	N/A	**0.0044 J**	**0.21**	**0.015**	**0.055**	**0.026**
Benzo[k]fluoranthene	mg/kg	210	**0.11**	**0.049**	0.008 U	**0.33**	**0.015**	**0.43**	**0.98**	**0.1**	**0.0052 J**	**0.87**	**1.3**	N/A	**0.03**	**1.3**	**0.075**	**0.3**	**0.02**
bis(2-Ethylhexyl)phthalate	mg/kg	160	0.08 U	0.078 U	0.081 U	0.081 U	0.086 U	**1.6**	0.077 U	**0.018 J**	**0.064 J**	0.075 U	**0.015 J**	N/A	**1.4**	0.072 U	**0.051 J**	0.084 U	0.017 B
Carbazole	mg/kg		0.08 U	0.078 U	0.081 U	0.081 U	0.086 U	**0.02 J**	**0.035 J**	0.075 U	0.082 U	**0.03 J**	**0.091**	N/A	0.076 U	**0.051 J**	0.072 U	0.084 U	0.084 U
Chrysene	mg/kg	2,100	**0.062 J**	**0.029**	**0.0014 J**	**0.17**	**0.0079 J**	**0.27**	**0.5**	**0.065**	**0.0064 J**	**0.33**	**0.54**	N/A	**0.041**	**0.55**	**0.051**	**0.18**	**0.036**
Dibenz[a,h]anthracene	mg/kg	2.1	0.082 U	**0.0058 J**	0.008 U	**0.026 J**	**0.0014 J**	**0.034 J**	**0.078**	**0.011**	0.0082 U	**0.047 J**	**0.06 J**	N/A	**0.0015 J**	**0.072 J**	**0.0053 J**	**0.021**	**0.0052 J**
Diethylphthalate	mg/kg	660,000	0.08 U	0.078 U	0.081 U	0.081 U	0.086 U	0.074 U	0.077 U	0.075 U	0.082 U	0.075 U	0.072 U	N/A	0.076 U	0.072 U	0.072 U	0.084 U	0.084 U
Di-n-butylphthalate	mg/kg	82,000	0.08 U	0.049 B	0.054 B	0.081 U	0.086 U	**0.92**	0.077 U	0.029 B	0.089 B	0.075 U	0.072 U	N/A	0.076 U	0.072 U	0.072 U	0.084 U	0.084 U
Di-n-ocytlphthalate	mg/kg	8,200	0.08 U	0.078 U	0.081 U	0.081 U	0.086 U	**0.27**	0.077 U	0.075 U	0.082 U	0.075 U	0.072 U	N/A	0.076 U	0.072 U	0.072 U	0.084 U	0.084 UJ
Fluoranthene	mg/kg	30,000	**0.095**	**0.068**	**0.0027 J**	**0.34**	**0.012**	**0.35**	**0.74**	**0.092**	**0.025**	**0.52**	**1**	N/A	**0.037**	**0.77**	**0.13**	**0.27**	**0.036**
Fluorene	mg/kg	30,000	0.082 U	**0.0016 J**	0.008 U	**0.0087 J**	0.0086 U	**0.012 J**	**0.023 J**	**0.002 J**	0.0082 U	**0.0083 J**	**0.012 J**	N/A	**0.0038 J**	**0.017 J**	**0.0041 J**	**0.082**	**0.0055 J**
Indeno[1,2,3-c,d]pyrene	mg/kg	21	**0.014 J**	**0.015**	0.008 U	**0.067 J**	**0.0021 J**	**0.079**	**0.21**	**0.033**	0.0082 U	**0.13**	**0.17**	N/A	**0.0035 J**	**0.19**	**0.015**	**0.056**	**0.022 J**
Naphthalene	mg/kg	8.6	0.082 U	**0.0051 J**	0.008 U	0.082 U	0.0086 U	**0.02 J**	**0.24**	**0.0068 J**	0.0082 U	**0.045 J**	**0.049 J**	N/A	**0.0045 J**	**0.19**	**0.027**	**0.12**	**0.061**
N-Nitrosodiphenylamine	mg/kg	470	0.08 U	0.078 U	0.081 U	0.081 U	0.086 U	0.074 U	0.077 U	0.075 U	0.082 U	0.075 U	0.072 U	N/A	0.076 U	0.072 U	0.072 U	0.084 U	0.084 U
Pentachlorophenol	mg/kg	4	0.2 U	0.2 U	0.2 U	0.2 U	0.21 U	0.19 U	0.19 U	0.19 U	0.21 U	0.19 U	0.18 U	N/A	0.19 U	0.18 U	0.18 U	0.21 U	0.21 R
Phenanthrene	mg/kg		**0.04 J**	**0.037**	**0.0019 J**	**0.16**	**0.0052 J**	**0.18**	**0.33**	**0.044**	**0.0042 J**	0.18 B	**0.43**	N/A	**0.047**	**0.43**	**0.12**	**0.28**	**0.026**
Phenol	mg/kg	250,000	0.08 U	0.078 U	0.081 U	0.081 U	0.086 U	**0.22**	**0.035 J**	0.075 U	0.082 U	0.075 U	0.072 U	N/A	0.076 U	0.072 U	0.072 U	0.084 U	0.084 R
Pyrene	mg/kg	23,000	**0.085**	**0.054**	**0.0023 J**	**0.29**	**0.0096**	**0.38**	**0.59**	**0.078**	**0.019**	**0.43**	**0.74**	N/A	**0.053**	**0.71**	**0.11**	**0.26**	**0.042**
PCBs																			
Aroclor 1242	mg/kg	0.97	N/A	0.0638 U	N/A	0.0615 U	N/A	0.0562 U	N/A	0.0592 U	N/A	0.0556 U	N/A	N/A	0.0552 U	N/A	0.0515 U	N/A	0.0578 U
Aroclor 1248	mg/kg	0.94	N/A	0.0638 U	N/A	0.0615 U	N/A	**1.12**	N/A	0.0592 U	N/A	0.0556 U	N/A	N/A	0.0552 U	N/A	0.0515 U	N/A	0.0578 U
Aroclor 1254	mg/kg	0.97	N/A	0.0638 U	N/A	0.0615 U	N/A	**0.347**	N/A	0.0592 U	N/A	0.0556 U	N/A	N/A	0.0552 U	N/A	0.0515 U	N/A	0.0578 U
Aroclor 1260	mg/kg	0.99	N/A	0.0638 U	N/A	0.0615 U	N/A	0.0562 U	N/A	0.0592 U	N/A	0.0556 U	N/A	N/A	0.0552 U	N/A	0.0515 U	N/A	0.0578 U
Aroclor 1262	mg/kg		N/A	0.0638 U	N/A	0.0615 U	N/A	**1.19**	N/A	0.0592 U	N/A	0.0556 U	N/A	N/A	0.0552 U	N/A	0.0515 U	N/A	0.0578 U
Aroclor 1268	mg/kg		N/A	0.0638 U	N/A	0.0615 U	N/A	0.0562 U	N/A	0.0592 U	N/A	**0.158**	N/A	N/A	**0.0998**	N/A	0.0515 U	N/A	0.0578 U
PCBs (total)	mg/kg	0.97	N/A	0.0638 U	N/A	0.0615 U	N/A	**2.657**	N/A	0.0592 U	N/A	**0.158**	N/A	N/A	**0.0998**	N/A	0.0515 U	N/A	0.0578 U
TPH/Oil & Grease																			
Diesel Range Organics	mg/kg	6,200	**24.8**	**10.5**	**17.7**	**22.5**	**5.5 J**	**567**	**97.6**	**147**	**19.5**	**65.4**	**72**	N/A	**45**	**48**	**54.8**	**324**	**152 J**
Gasoline Range Organics	mg/kg	6,200	9.9 U	11.2 U	10.1 U	10.2 U	10.8 U	**8 J**	14.4 U	5.2 U	9.7 U	12 U	11.3 U	N/A	10.5 U	15.1 U	10.7 U	10.5 U	11.6 U
Oil & Grease	mg/kg	6,200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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
^ PAH compounds were analyzed via SIM
Not included in SLRA due to excavation

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.
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 or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this analyte in the sample.

Table 1 - Sub-Parcel B22-2
Summary of Organics Detected in Soil

Parameter	Units	PAL	B22-115-SB-8.5 5/19/2016	B22-116-SB-1* 5/19/2016	B22-116-SB-8.5* 5/19/2016	B22-117-SB-1* 5/18/2016	B22-117-SB-4* 5/18/2016	B22-117-SB-10 5/18/2016	B22-118-SB-1* 5/18/2016	B22-118-SB-9* 5/18/2016	B22-118-SB-10* 5/18/2016	B22-119-SB-1 5/19/2016	B22-119-SB-9 5/19/2016	B22-119-SB-10* 5/19/2016	B22-120-SB-1* 5/19/2016	B22-120-SB-8* 5/19/2016	B22-121-SB-1* 5/19/2016	B22-121-SB-9* 5/19/2016	B22-121-SB-10* 5/19/2016
Volatile Organic Compounds																			
1,1,1-Trichloroethane	mg/kg	36,000	0.0048 U	0.0074 U	0.0055 U	0.005 U	0.0057 U	N/A	0.0045 U	0.0057 U	N/A	0.0056 U	0.007 U	N/A	0.0053 U	0.0056 U	0.0049 U	0.0061 U	N/A
1,1,2-Trichloro-1,2,2-Trifluoroethane	mg/kg	170,000	0.048 U	0.074 U	0.055 U	0.05 U	0.057 U	N/A	0.045 U	0.057 U	N/A	0.056 U	0.07 U	N/A	0.053 U	0.056 U	0.049 U	0.061 U	N/A
1,1-Dichloroethane	mg/kg	16	0.0048 U	0.0074 U	0.0055 U	0.005 U	0.0057 U	N/A	0.0045 U	0.0057 U	N/A	0.0056 U	0.007 U	N/A	0.0053 U	0.0056 U	0.0049 U	0.0061 U	N/A
1,1-Dichloroethene	mg/kg	1,000	0.0048 U	0.0074 U	0.0055 U	0.005 U	0.0057 U	N/A	0.0045 U	0.0057 U	N/A	0.0056 U	0.007 U	N/A	0.0053 U	0.0056 U	0.0049 U	0.0061 U	N/A
1,2,3-Trichlorobenzene	mg/kg	930	0.0048 U	0.0074 U	0.0055 U	0.005 U	0.0057 U	N/A	0.0045 U	0.0057 U	N/A	0.0056 U	0.007 U	N/A	0.0053 U	0.0056 U	0.0049 U	0.0061 U	N/A
1,2-Dichloroethane	mg/kg	2	0.0048 U	0.0074 U	0.0055 U	0.005 U	0.0057 U	N/A	0.0045 U	0.0057 U	N/A	0.0056 U	0.007 U	N/A	0.0053 U	0.0056 U	0.0049 U	0.0061 U	N/A
1,2-Dichloroethene (Total)	mg/kg	2,300	0.0096 U	0.015 U	**0.059**	0.0099 U	0.011 U	N/A	0.009 U	0.011 U	N/A	0.011 U	0.014 U	N/A	0.011 U	0.011 U	0.0097 U	0.012 U	N/A
2-Butanone (MEK)	mg/kg	190,000	**0.0026 J**	**0.0061 J**	**0.0027 J**	0.0099 U	**0.0028 J**	N/A	0.009 U	0.011 U	N/A	0.011 U	**0.0061 J**	N/A	0.011 U	0.011 U	0.0097 U	**0.0056 J**	N/A
2-Hexanone	mg/kg	1,300	0.0096 U	0.015 U	0.011 U	0.0099 U	0.011 U	N/A	0.009 U	0.011 U	N/A	0.011 U	0.014 U	N/A	0.011 U	0.011 U	0.0097 U	0.012 U	N/A
4-Methyl-2-pentanone (MIBK)	mg/kg	56,000	0.0096 U	0.015 U	0.011 U	0.0099 U	0.011 U	N/A	0.009 U	0.011 U	N/A	0.011 U	0.014 U	N/A	0.011 U	0.011 U	0.0097 U	0.012 U	N/A
Acetone	mg/kg	670,000	**0.0095 J**	0.015 U	0.011 U	0.0099 U	0.011 U	N/A	**0.0089 J**	**0.0071 J**	N/A	0.011 U	**0.023 J**	N/A	0.011 U	0.011 U	0.0097 U	**0.022**	N/A
Benzene	mg/kg	5.1	0.0048 U	0.0074 U	**0.0059**	0.005 U	0.0057 U	N/A	0.0045 U	0.0057 U	N/A	0.0056 U	**3.9 J**	N/A	0.0053 U	0.0056 U	0.0049 U	0.0061 U	N/A
Carbon tetrachloride	mg/kg	2.9	0.0048 U	0.0074 U	0.0055 U	0.005 U	0.0057 U	N/A	0.0045 U	0.0057 U	N/A	0.0056 U	0.007 U	N/A	0.0053 U	0.0056 U	0.0049 U	0.0061 U	N/A
Chloroform	mg/kg	1.4	0.0048 U	0.0074 U	0.0055 U	0.005 U	0.0057 U	N/A	0.0045 U	0.0057 U	N/A	0.0056 U	0.007 U	N/A	0.0053 U	0.0056 U	0.0049 U	0.0061 U	N/A
cis-1,2-Dichloroethene	mg/kg	2,300	0.0048 U	0.0074 U	**0.055**	0.005 U	0.0057 U	N/A	0.0045 U	0.0057 U	N/A	0.0056 U	0.007 U	N/A	0.0053 U	0.0056 U	0.0049 U	0.0061 U	N/A
Cyclohexane	mg/kg	27,000	0.0096 U	0.015 U	0.011 U	0.0099 U	0.011 U	N/A	0.009 U	0.011 U	N/A	0.011 U	0.014 U	N/A	0.011 U	0.011 U	0.0097 U	0.012 U	N/A
Ethylbenzene	mg/kg	25	0.0048 U	0.0074 U	0.0055 U	0.005 U	0.0057 U	N/A	0.0045 U	0.0057 U	N/A	0.0056 U	**0.096 J**	N/A	0.0053 U	0.0056 U	0.0049 U	0.0061 U	N/A
Isopropylbenzene	mg/kg	9,900	0.0048 U	0.0074 U	0.0055 U	0.005 U	0.0057 U	N/A	0.0045 U	0.0057 U	N/A	0.0056 U	**0.018**	N/A	0.0053 U	0.0056 U	0.0049 U	0.0061 U	N/A
Methyl Acetate	mg/kg	1,200,000	0.048 U	0.074 U	0.055 U	0.05 U	0.057 U	N/A	0.045 U	0.057 U	N/A	0.056 U	0.07 U	N/A	0.053 U	0.056 U	0.049 U	0.061 U	N/A
Styrene	mg/kg	35,000	0.0048 U	0.0074 U	0.0055 U	0.005 U	0.0057 U	N/A	0.0045 U	0.0057 U	N/A	0.0056 U	**0.032 J**	N/A	0.0053 U	0.0056 U	0.0049 U	0.0061 U	N/A
Tetrachloroethene	mg/kg	100	0.0048 U	0.0074 U	0.0055 U	0.005 U	0.0057 U	N/A	**0.0044 J**	0.0057 U	N/A	0.0056 U	0.007 U	N/A	0.0053 U	0.0056 U	0.0049 U	0.0061 U	N/A
Toluene	mg/kg	47,000	0.0048 U	0.0074 U	0.0055 U	0.005 U	0.0057 U	N/A	0.0045 U	0.0057 U	N/A	0.0056 U	**1.4 J**	N/A	0.0053 U	0.0056 U	0.0049 U	0.0061 U	N/A
trans-1,2-Dichloroethene	mg/kg	23,000	0.0048 U	0.0074 U	**0.0035 J**	0.005 U	0.0057 U	N/A	0.0045 U	0.0057 U	N/A	0.0056 U	0.007 U	N/A	0.0053 U	0.0056 U	0.0049 U	0.0061 U	N/A
Trichloroethene	mg/kg	6	0.0048 U	0.0074 U	0.0055 U	0.005 U	0.0057 U	N/A	0.0045 U	0.0057 U	N/A	0.0056 U	0.007 U	N/A	0.0053 U	0.0056 U	0.0049 U	0.0061 U	N/A
Vinyl chloride	mg/kg	1.7	0.0048 U	0.0074 U	**0.014**	0.005 U	0.0057 U	N/A	0.0045 U	0.0057 U	N/A	0.0056 U	0.007 U	N/A	0.0053 U	0.0056 U	0.0049 U	0.0061 U	N/A
Xylenes	mg/kg	2,800	0.014 U	0.022 U	**0.0046 J**	0.015 U	0.017 U	N/A	0.014 U	0.017 U	N/A	0.017 U	**0.75 J**	N/A	0.016 U	0.017 U	0.015 U	0.018 U	N/A
Semi-Volatile Organic Compounds^																			
1,1-Biphenyl	mg/kg	200	**0.48 J**	0.074 U	**5.7**	**0.033 J**	**0.17**	N/A	**0.027 J**	**0.016 J**	N/A	0.07 U	**0.18 J**	N/A	**0.055 J**	**0.023 J**	**0.017 J**	**0.025 J**	N/A
1,2,4,5-Tetrachlorobenzene	mg/kg	350	0.08 U	0.074 U	0.079 U	0.072 U	0.074 U	N/A	0.075 U	0.071 U	N/A	0.07 U	0.099 U	N/A	0.07 U	0.08 U	0.07 U	0.081 U	N/A
2,4-Dimethylphenol	mg/kg	16,000	0.08 U	0.074 U	0.079 U	0.072 U	0.074 U	N/A	0.075 U	0.071 U	N/A	0.07 U	**0.96**	N/A	0.07 U	0.08 U	0.07 U	0.081 U	N/A
2-Chloronaphthalene	mg/kg	60,000	0.08 U	0.074 U	0.079 U	0.072 U	0.074 U	N/A	0.075 U	0.071 U	N/A	0.07 U	0.099 U	N/A	0.07 U	0.08 U	0.07 U	0.081 U	N/A
2-Methylnaphthalene	mg/kg	3,000	**0.61**	**0.0083**	0.0081 U	**0.097**	**0.56**	**0.024**	**0.029**	**0.11**	N/A	0.072 U	**1.7**	N/A	**0.069 J**	0.081 U	**0.11**	**0.061 J**	N/A
2-Methylphenol	mg/kg	41,000	0.08 U	0.074 U	0.079 U	0.072 U	0.074 U	N/A	0.075 U	0.071 U	N/A	0.07 U	**1.5**	N/A	0.07 U	0.08 U	0.07 U	0.081 U	N/A
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	0.16 U	0.15 U	**0.035 J**	0.14 U	**0.022 J**	N/A	0.15 U	0.14 U	N/A	0.14 U	**1.4 J**	N/A	0.14 U	0.16 U	0.14 U	**0.057 J**	N/A
3,3'-Dichlorobenzidine	mg/kg	5.1	0.08 UJ	0.074 U	0.079 U	0.072 U	0.074 U	N/A	0.075 U	0.071 U	N/A	0.07 UJ	0.099 U	N/A	0.07 U	0.08 U	0.07 U	0.081 U	N/A
4-Nitroaniline	mg/kg	110	0.2 U	0.19 U	0.2 U	0.18 U	0.18 U	N/A	0.19 U	0.18 U	N/A	0.18 U	0.25 U	N/A	0.17 U	0.2 U	0.17 U	0.2 U	N/A
Acenaphthene	mg/kg	45,000	**0.72**	**0.042**	0.0081 U	**0.042 J**	**0.16**	**0.0055 J**	**0.031**	**0.049**	N/A	0.072 U	**0.38 J**	N/A	**0.015 J**	**0.11**	**0.027**	**0.1**	N/A
Acenaphthylene	mg/kg	45,000	**0.042 J**	**0.014**	0.0081 U	**0.18**	**1.7**	**0.011**	**0.37**	**0.31**	N/A	**0.011 J**	**0.72 J**	N/A	**0.58**	**0.026 J**	**0.052**	**0.054 J**	N/A
Acetophenone	mg/kg	120,000	0.08 U	0.074 U	0.079 U	0.072 U	0.074 U	N/A	0.075 U	0.071 U	N/A	0.07 U	0.099 U	N/A	0.07 U	0.08 U	0.07 U	0.081 U	N/A
Anthracene	mg/kg	230,000	**0.92**	**0.21**	**0.019**	**0.36**	**3.7**	**0.047**	**0.45**	**0.6**	N/A	**0.025 J**	**0.42 J**	N/A	**0.21**	**0.68**	**0.13**	**0.21**	N/A
Benz[a]anthracene	mg/kg	21	**1.4**	**0.97**	**0.065**	**1.5**	**13.4**	**0.16**	**2.3**	**1.9**	N/A	**0.2**	**0.35 J**	N/A	**0.51**	**1.5**	**0.52**	**0.43**	N/A
Benzaldehyde	mg/kg	120,000	0.08 R	0.074 U	0.079 U	0.072 U	**0.021 J**	N/A	0.075 U	0.071 U	N/A	0.07 R	0.099 R	N/A	**0.017 J**	0.08 U	**0.021 J**	**0.023 J**	N/A
Benzo[a]pyrene	mg/kg	2.1	**1.5**	**0.77**	**0.056**	**1.2**	**10.7**	**0.15**	**1.7**	N/A	**0.27**	**0.16**	**0.26 J**	**84.9**	**0.57**	**1.3**	**0.47**	**0.39**	**0.9**
Benzo[b]fluoranthene	mg/kg	21	**1.8**	**1.3**	**0.14**	**2.7**	**20.7**	**0.33**	**3.8**	**2.2**	N/A	**0.4**	**0.57 J**	N/A	**1.3**	**2.8**	**1.1**	**0.86**	N/A
Benzo[g,h,i]perylene	mg/kg		**0.96**	**0.22**	**0.022**	**0.85**	**5.8**	**0.073**	**0.77**	**0.58**	N/A	**0.058 J**	**0.082 J**	N/A	**0.36**	**0.42**	**0.16**	**0.15**	N/A
Benzo[k]fluoranthene	mg/kg	210	**0.86**	**1.5**	**0.11**	**2.6**	**20.3**	**0.28**	**0.92**	**0.96**	N/A	**0.33**	**0.47 J**	N/A	**1.1**	**2.3**	**0.92**	**0.71**	N/A
bis(2-Ethylhexyl)phthalate	mg/kg	160	0.08 UJ	**0.022 J**	0.079 U	0.072 U	**0.032 J**	N/A	**0.051 J**	0.071 U	N/A	0.028 B	0.099 U	N/A	**0.038 J**	0.08 U	**0.018 J**	0.081 U	N/A
Carbazole	mg/kg		**0.63 J**	**0.044 J**	**0.019 J**	**0.072**	**1.2**	N/A	**0.33**	**0.17**	N/A	0.07 U	**1.8**	N/A	**0.032 J**	**0.26**	**0.04 J**	**0.11**	N/A
Chrysene	mg/kg	2,100	**1.6**	**0.86**	**0.083**	**1.5**	**12.5**	**0.18**	**2**	**1.9**	N/A	**0.21**	**0.27 J**	N/A	**0.47**	**1.2**	**0.48**	**0.38**	N/A
Dibenz[a,h]anthracene	mg/kg	2.1	**0.23**	**0.11**	**0.0093**	**0.27**	**2.1**	**0.029**	**0.31**	**0.31**	**0.057**	**0.018 J**	**0.03 J**	N/A	**0.091**	**0.16**	**0.073**	**0.048 J**	N/A
Diethylphthalate	mg/kg	660,000	0.08 U	0.074 U	0.079 U	0.072 U	0.074 U	N/A	0.075 U	0.071 U	N/A	0.07 U	0.099 U	N/A	**0.17**	0.08 U	0.07 U	0.081 U	N/A
Di-n-butylphthalate	mg/kg	82,000	0.043 B	0.074 U	0.079 U	0.072 U	0.074 U	N/A	0.075 U	0.071 U	N/A	0.07 U	0.099 U	N/A	0.07 U	0.08 U	0.07 U	0.081 U	N/A
Di-n-ocytlphthalate	mg/kg	8,200	0.08 UJ	0.074 U	0.079 U	**0.046 J**	0.074 U	N/A	0.075 U	0.071 U	N/A	0.07 UJ	0.099 U	N/A	0.07 U	0.08 U	0.07 U	0.081 U	N/A
Fluoranthene	mg/kg	30,000	**3.1**	**1.3**	**0.13**	**2.7**	**25.9**	**0.21**	**4.2**	**3.7**	N/A	**0.27**	**1.5 J**	N/A	**0.8**	**3.2**	**1**	**1.3**	N/A
Fluorene	mg/kg	30,000	**0.7**	**0.062**	**0.017**	**0.071 J**	**1.6**	**0.0082**	**0.075**	**0.3**	N/A	0.072 U	**1.2**	N/A	**0.038 J**	**0.15**	**0.036**	**0.12**	N/A
Indeno[1,2,3-c,d]pyrene	mg/kg	21	**0.89 J**	**0.24**	**0.022**	**0.83**	**6.2**	**0.072**	**0.81**	**0.74**	N/A	**0.049 J**	**0.086 J**	N/A	**0.28**	**0.42**	**0.17**	**0.14**	N/A
Naphthalene	mg/kg	8.6	**0.92**	**0.0067 J**	**0.065**	**0.26**	**1.1**	**0.11**	**0.062**	**0.34**	N/A	0.072 U	**32.8**	**2,040**	**0.2**	**0.031 J**	**0.092**	**0.11**	N/A
N-Nitrosodiphenylamine	mg/kg	470	0.08 U	0.074 U	0.079 U	0.072 U	0.074 U	N/A	0.075 U	0.071 U	N/A	0.07 U	0.099 U	N/A	0.07 U	0.08 U	0.07 U	0.081 U	N/A
Pentachlorophenol	mg/kg	4	**0.058 J**	0.19 U	0.2 U	0.18 U	0.18 U	N/A	0.19 U	0.18 U	N/A	0.18 U	0.25 U	N/A	0.17 U	0.2 U	0.17 U	0.2 U	N/A
Phenanthrene	mg/kg		**3.5**	**0.75**	**0.1**	**1.4**	**13.6**	**0.15**	**1.4**	**2**	N/A	**0.046 J**	**2.5**	N/A	**0.44**	**1.9**	**0.62**	**0.8**	N/A
Phenol	mg/kg	250,000	0.08 U	0.074 U	**0.045 J**	0.072 U	**0.037 J**	N/A	0.075 U	0.071 U	N/A	0.07 U	**1.1**	N/A	**0.019 J**	0.08 U	0.07 U	0.081 U	N/A
Pyrene	mg/kg	23,000	**2.6**	**1.3**	**0.11**	**2.8**	**20.5**	**0.19**	**3.3**	**2.7**	N/A	**0.25**	**1 J**	N/A	**0.66**	**2.7**	**0.85**	**0.94**	N/A
PCBs																			
Aroclor 1242	mg/kg	0.97	N/A	0.0553 U	N/A	0.0546 U	N/A	N/A	0.0642 U	N/A	N/A	0.0556 U	N/A	N/A	**0.269**	N/A	0.0549 U	N/A	N/A
Aroclor 1248	mg/kg	0.94	N/A	0.0553 U	N/A	0.0546 U	N/A	N/A	0.0642 U	N/A	N/A	0.0556 U	N/A	N/A	0.0548 U	N/A	0.0549 U	N/A	N/A
Aroclor 1254	mg/kg	0.97	N/A	0.0553 U	N/A	**0.0681**	N/A	N/A	0.0642 U	N/A	N/A	0.0556 U	N/A	N/A	**0.206**	N/A	**0.0375 J**	N/A	N/A
Aroclor 1260	mg/kg	0.99	N/A	0.0553 U	N/A	0.0546 U	N/A	N/A	0.0642 U	N/A	N/A	0.0556 U	N/A	N/A	**0.378**	N/A	0.0549 U	N/A	N/A
Aroclor 1262	mg/kg		N/A	**0.0268 J**	N/A	**0.041 J**	N/A	N/A	0.0642 U	N/A	N/A	0.0556 U	N/A	N/A	0.0548 U	N/A	**0.0482 J**	N/A	N/A
Aroclor 1268	mg/kg		N/A	0.0553 U	N/A	0.0546 U	N/A	N/A	0.0642 U	N/A	N/A	0.0556 U	N/A	N/A	0.0548 U	N/A	0.0549 U	N/A	N/A
PCBs (total)	mg/kg	0.97	N/A	**0.0268 J**	N/A	**0.1091**	N/A	N/A	0.0642 U	N/A	N/A	0.0556 U	N/A	N/A	**0.853**	N/A	**0.0857**	N/A	N/A
TPH/Oil & Grease																			
Diesel Range Organics	mg/kg	6,200	**232 J**	**104**	**321**	**328**	**417**	N/A	**334**	**46**	N/A	**20.5 J**	**124 J**	N/A	**151**	**124**	**105**	**557**	N/A
Gasoline Range Organics	mg/kg	6,200	**34.7**	14.4 U	8.6 U	11.5 U	11.4 U	N/A	11.8 U	10.5 U	N/A	13 U	**11.1 J**	N/A	10.8 U	11.1 U	10.7 U	**7.8 J**	N/A
Oil & Grease	mg/kg	6,200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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
^ PAH compounds were analyzed via SIM
Not included in SLRA due to excavation

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.
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 or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this analyte in the sample.

Table 1 - Sub-Parcel B22-2
Summary of Organics Detected in Soil

Parameter	Units	PAL	B22-125-SB-1* 5/18/2016	B22-125-SB-4* 5/18/2016	B22-125-SB-10 5/18/2016	B22-126-SB-1* 5/18/2016	B22-126-SB-6* 5/18/2016	B22-127-SB-1* 5/18/2016	B22-127-SB-7* 5/18/2016	B22-144-SB-1* 5/20/2016	B22-144-SB-7* 5/20/2016	B22-145-SB-1* 5/20/2016	B22-145-SB-4* 5/20/2016	B22-145-SB-10* 5/20/2016	B22-148-SB-1* 5/19/2016	B22-148-SB-6* 5/19/2016	B22-148-SB-10* 5/19/2016	B22-149-SB-1* 5/19/2016	B22-149-SB-8* 5/19/2016
Volatile Organic Compounds																			
1,1,1-Trichloroethane	mg/kg	36,000	0.0049 U	0.0052 U	N/A	0.0069 U	0.0054 U	0.0056 U	0.0054 U	0.0085 U	0.0043 U	0.0047 U	0.0065 U	N/A	0.0049 U	0.0054 U	N/A	0.0084 U	0.005 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	mg/kg	170,000	0.049 U	0.052 U	N/A	0.069 U	0.054 U	0.056 U	0.054 U	0.085 U	0.043 U	0.047 U	0.065 U	N/A	0.049 U	0.054 U	N/A	0.084 U	0.05 U
1,1-Dichloroethane	mg/kg	16	0.0049 U	0.0052 U	N/A	0.0069 U	0.0054 U	0.0056 U	**0.004 J**	0.0085 U	0.0043 U	0.0047 U	0.0065 U	N/A	0.0049 U	0.0054 U	N/A	0.0084 U	0.005 U
1,1-Dichloroethene	mg/kg	1,000	0.0049 U	0.0052 U	N/A	0.0069 U	0.0054 U	0.0056 U	0.0054 U	0.0085 U	0.0043 U	0.0047 U	0.0065 U	N/A	0.0049 U	0.0054 U	N/A	0.0084 U	0.005 U
1,2,3-Trichlorobenzene	mg/kg	930	0.0049 U	0.0052 U	N/A	0.0069 U	0.0054 U	0.0056 U	0.0054 U	0.0085 U	0.0043 U	0.0047 U	0.0065 U	N/A	0.0049 U	0.0054 U	N/A	0.0084 U	0.005 U
1,2-Dichloroethane	mg/kg	2	0.0049 U	0.0052 U	N/A	0.0069 U	0.0054 U	0.0056 U	0.0054 U	0.0085 U	0.0043 U	0.0047 U	0.0065 U	N/A	0.0049 U	0.0054 U	N/A	0.0084 U	0.005 U
1,2-Dichloroethene (Total)	mg/kg	2,300	0.0098 U	0.01 U	N/A	0.014 U	0.011 U	0.011 U	0.011 U	0.017 U	0.0086 U	0.0094 U	0.013 U	N/A	0.0098 U	0.011 U	N/A	0.017 U	0.01 U
2-Butanone (MEK)	mg/kg	190,000	0.0098 U	0.01 U	N/A	0.014 U	**0.0046 J**	0.011 U	**0.0089 J**	0.017 U	0.0086 U	0.0094 U	**0.013 J**	N/A	0.0098 U	0.011 U	N/A	0.017 U	0.01 U
2-Hexanone	mg/kg	1,300	0.0098 U	0.01 U	N/A	0.014 U	0.011 U	0.011 U	0.011 U	0.017 U	0.0086 U	0.0094 U	0.013 U	N/A	0.0098 U	0.011 U	N/A	0.017 U	0.01 U
4-Methyl-2-pentanone (MIBK)	mg/kg	56,000	0.0098 U	0.01 U	N/A	0.014 U	0.011 U	0.011 U	0.011 U	0.017 U	0.0086 U	0.0094 U	0.013 U	N/A	0.0098 U	0.011 U	N/A	0.017 U	0.01 U
Acetone	mg/kg	670,000	0.0098 U	0.01 U	N/A	0.014 U	**0.031**	0.011 U	**0.037**	0.017 U	**0.015**	0.0094 U	**0.065**	N/A	**0.0054 J**	**0.02**	N/A	**0.014 J**	**0.006 J**
Benzene	mg/kg	5.1	0.0049 U	0.0052 U	N/A	0.0069 U	0.0054 U	0.0056 U	0.0054 U	0.0085 U	0.0043 U	0.0047 U	0.0065 U	N/A	0.0049 U	**0.012**	N/A	0.0084 U	0.005 U
Carbon tetrachloride	mg/kg	2.9	0.0049 U	0.0052 U	N/A	0.0069 U	0.0054 U	0.0056 U	0.0054 U	0.0085 U	0.0043 U	0.0047 U	0.0065 U	N/A	0.0049 U	0.0054 U	N/A	0.0084 U	0.005 U
Chloroform	mg/kg	1.4	0.0049 U	0.0052 U	N/A	0.0069 U	0.0054 U	0.0056 U	0.0054 U	0.0085 U	0.0043 U	0.0047 U	0.0065 U	N/A	0.0049 U	0.0054 U	N/A	0.0084 U	**0.0075**
cis-1,2-Dichloroethene	mg/kg	2,300	0.0049 U	0.0052 U	N/A	0.0069 U	0.0054 U	0.0056 U	0.0054 U	0.0085 U	0.0043 U	0.0047 U	0.0065 U	N/A	0.0049 U	0.0054 U	N/A	0.0084 U	0.005 U
Cyclohexane	mg/kg	27,000	0.0098 U	0.01 U	N/A	0.014 U	0.011 U	0.011 U	0.011 U	0.017 U	0.0086 U	0.0094 U	0.013 U	N/A	0.0098 U	**0.092**	N/A	0.017 U	0.01 U
Ethylbenzene	mg/kg	25	0.0049 U	0.0052 U	N/A	0.0069 U	0.0054 U	0.0056 U	0.0054 U	0.0085 U	0.0043 U	0.0047 U	0.0065 U	N/A	0.0049 U	**0.027**	N/A	0.0084 U	0.005 U
Isopropylbenzene	mg/kg	9,900	0.0049 U	0.0052 U	N/A	0.0069 U	0.0054 U	0.0056 U	0.0054 U	0.0085 U	0.0043 U	0.0047 U	0.0065 U	N/A	0.0049 U	**0.012**	N/A	0.0084 U	0.005 U
Methyl Acetate	mg/kg	1,200,000	0.049 U	0.052 U	N/A	0.069 U	0.054 U	0.056 U	0.054 U	0.085 U	0.043 U	0.047 U	0.065 U	N/A	0.049 U	0.054 U	N/A	0.084 U	0.05 U
Styrene	mg/kg	35,000	0.0049 U	0.0052 U	N/A	0.0069 U	0.0054 U	0.0056 U	0.0054 U	0.0085 U	0.0043 U	0.0047 U	0.0065 U	N/A	0.0049 U	0.0054 U	N/A	0.0084 U	0.005 U
Tetrachloroethene	mg/kg	100	0.0049 U	0.0052 U	N/A	0.0069 U	0.0054 U	0.0056 U	0.0054 U	0.0085 U	0.0043 U	0.0047 U	0.0065 U	N/A	0.0049 U	0.0054 U	N/A	0.0084 U	0.005 U
Toluene	mg/kg	47,000	0.0049 U	0.0052 U	N/A	0.0069 U	0.0054 U	0.0056 U	0.0054 U	0.0085 U	0.0043 U	0.0047 U	0.0065 U	N/A	0.0049 U	**0.026**	N/A	0.0084 U	0.005 U
trans-1,2-Dichloroethene	mg/kg	23,000	0.0049 U	0.0052 U	N/A	0.0069 U	0.0054 U	0.0056 U	0.0054 U	0.0085 U	0.0043 U	0.0047 U	0.0065 U	N/A	0.0049 U	0.0054 U	N/A	0.0084 U	0.005 U
Trichloroethene	mg/kg	6	0.0049 U	0.0052 U	N/A	0.0069 U	0.0054 U	0.0056 U	0.0054 U	0.0085 U	0.0043 U	0.0047 U	0.0065 U	N/A	0.0049 U	0.0054 U	N/A	0.0084 U	0.005 U
Vinyl chloride	mg/kg	1.7	0.0049 U	0.0052 U	N/A	0.0069 U	0.0054 U	0.0056 U	0.0054 U	0.0085 U	0.0043 U	0.0047 U	0.0065 U	N/A	0.0049 U	0.0054 U	N/A	0.0084 U	0.005 U
Xylenes	mg/kg	2,800	0.015 U	0.016 U	N/A	0.021 U	0.016 U	0.017 U	0.016 U	0.025 U	0.013 U	0.014 U	0.019 U	N/A	0.015 U	**0.11**	N/A	0.025 U	0.015 U
Semi-Volatile Organic Compounds^																			
1,1-Biphenyl	mg/kg	200	0.074 U	**0.059 J**	N/A	0.081 U	0.084 U	0.073 U	0.085 U	**0.023 J**	**0.16**	0.072 U	0.08 U	N/A	**0.063 J**	**0.15**	N/A	**0.033 J**	**0.26**
1,2,4,5-Tetrachlorobenzene	mg/kg	350	0.074 U	0.083 U	N/A	0.081 U	0.084 U	0.073 U	0.085 U	0.095 U	0.079 U	0.072 U	0.08 U	N/A	0.068 U	0.086 U	N/A	0.069 U	0.073 U
2,4-Dimethylphenol	mg/kg	16,000	0.074 U	0.083 U	N/A	0.081 U	0.084 U	0.073 U	0.085 U	0.095 U	0.079 U	0.072 U	0.08 U	N/A	0.068 U	**0.053 J**	N/A	0.069 U	**0.026 J**
2-Chloronaphthalene	mg/kg	60,000	0.074 U	0.083 U	N/A	0.081 U	0.084 U	0.073 U	0.085 U	0.095 U	0.079 U	0.072 U	0.08 U	N/A	0.068 U	0.086 U	N/A	0.069 U	0.073 U
2-Methylnaphthalene	mg/kg	3,000	**0.068 J**	**0.2**	N/A	**0.08 J**	0.0084 U	**0.062 J**	0.0085 U	0.096 U	**0.14**	0.073 U	**0.047 J**	N/A	**0.15**	**0.79**	N/A	**0.14**	**1.9**
2-Methylphenol	mg/kg	41,000	0.074 U	0.083 U	N/A	0.081 U	0.084 U	0.073 U	0.085 U	0.095 U	0.079 U	0.072 U	0.08 U	N/A	0.068 U	0.086 U	N/A	0.069 U	**0.03 J**
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	0.15 U	0.17 U	N/A	0.16 U	0.17 U	0.15 U	0.17 U	0.19 U	**0.051 J**	0.14 U	**0.032 J**	N/A	0.14 U	**0.045 J**	N/A	0.14 U	**0.12 J**
3,3'-Dichlorobenzidine	mg/kg	5.1	0.074 U	0.083 U	N/A	0.081 U	0.084 U	0.073 U	0.085 U	0.095 U	0.079 U	0.072 U	0.4 U	N/A	0.068 U	0.086 U	N/A	0.069 U	0.073 U
4-Nitroaniline	mg/kg	110	0.19 U	0.21 U	N/A	0.2 U	0.21 U	0.18 U	0.21 U	0.24 U	0.2 U	0.18 U	0.2 U	N/A	0.17 U	0.22 U	N/A	0.17 U	0.18 U
Acenaphthene	mg/kg	45,000	**0.012 J**	**0.045 J**	N/A	**0.0073 J**	0.0084 U	**0.0072 J**	**0.0046 J**	0.096 U	**0.18**	0.073 U	**0.0073 J**	N/A	**0.76**	**0.21**	N/A	**0.36**	**2.3**
Acenaphthylene	mg/kg	45,000	**0.037 J**	**0.074 J**	N/A	**0.025 J**	0.0084 U	**0.017 J**	0.0085 U	**0.019 J**	**0.91**	**0.016 J**	**0.049 J**	N/A	**0.21**	**0.05 J**	N/A	**0.25**	**8**
Acetophenone	mg/kg	120,000	0.074 U	0.083 U	N/A	0.081 U	0.084 U	0.073 U	0.085 U	0.095 U	0.079 U	0.072 U	0.08 U	N/A	0.068 U	**0.034 J**	N/A	0.069 U	**0.02 J**
Anthracene	mg/kg	230,000	**0.047 J**	**0.27**	N/A	**0.052 J**	**0.00081 J**	**0.024 J**	**0.001 J**	0.033 B	**2.7**	0.026 B	**0.15**	N/A	**1.9**	**0.28**	N/A	**1.5**	**23.4**
Benz[a]anthracene	mg/kg	21	**0.24**	**1**	N/A	**0.13**	**0.0034 J**	**0.1**	**0.0019 J**	0.14 B	**5.5**	0.11 B	**0.4**	N/A	**5.3**	**0.94**	N/A	**4.2**	**60.4**
Benzaldehyde	mg/kg	120,000	0.074 U	**0.066 J**	N/A	**0.37**	0.084 U	**0.019 J**	0.085 U	0.095 U	0.079 U	**0.3**	**0.2**	N/A	0.068 U	**0.03 J**	N/A	0.069 U	**0.034 J**
Benzo[a]pyrene	mg/kg	2.1	**0.38**	**0.87**	0.0082 U	**0.1**	**0.0018 J**	**0.11**	0.0085 U	**0.11**	**4.5**	**0.077**	**0.33**	**0.0015 J**	**4.6**	**0.54**	**9.5**	**3.7**	**47.1**
Benzo[b]fluoranthene	mg/kg	21	**0.85**	**1.9**	N/A	**0.19**	**0.0042 J**	**0.23**	**0.0012 J**	**0.29**	**9.2**	**0.23**	**0.78**	N/A	**10.3**	**2.8**	N/A	**8.5**	**92.5**
Benzo[g,h,i]perylene	mg/kg		**0.16**	**0.31**	N/A	**0.021 J**	**0.0014 J**	**0.078**	0.0085 U	**0.042 J**	**1.3**	**0.045 J**	**0.091**	N/A	**1.6**	**0.24**	N/A	**1.2**	**11.7**
Benzo[k]fluoranthene	mg/kg	210	**0.81**	**1.8**	N/A	**0.083**	**0.004 J**	**0.22**	0.0085 U	**0.25**	**8**	**0.2**	**0.69**	N/A	**8.6**	**2.3**	N/A	**7**	**89.3**
bis(2-Ethylhexyl)phthalate	mg/kg	160	**0.057 J**	0.083 U	N/A	0.081 U	0.084 U	0.073 U	0.085 U	**0.15**	**0.051 J**	**1.8**	0.4 U	N/A	**0.023 J**	0.086 U	N/A	**0.086**	0.073 U
Carbazole	mg/kg		0.074 U	**0.13**	N/A	0.081 U	0.084 U	0.073 U	0.085 U	0.095 U	**0.85**	0.072 U	0.4 U	N/A	**0.56**	**0.1**	N/A	**0.39**	**5**
Chrysene	mg/kg	2,100	**0.3**	**1**	N/A	**0.13**	**0.0022 J**	**0.11**	**0.00082 J**	0.11 B	**4.1**	0.11 B	**0.47**	N/A	**4.6**	**1.6**	N/A	**3.7**	**59**
Dibenz[a,h]anthracene	mg/kg	2.1	**0.064 J**	**0.13**	N/A	0.083 U	0.0084 U	**0.02 J**	0.0085 U	**0.02 J**	**0.52**	**0.013 J**	**0.042 J**	N/A	**0.63**	**0.084 J**	N/A	**0.5**	**5.2**
Diethylphthalate	mg/kg	660,000	0.074 U	0.083 U	N/A	0.081 U	0.084 U	0.073 U	0.085 U	0.095 U	0.079 U	0.072 U	0.08 U	N/A	0.068 U	0.086 U	N/A	0.069 U	0.073 U
Di-n-butylphthalate	mg/kg	82,000	0.074 U	0.083 U	N/A	0.081 U	0.084 U	0.073 U	0.085 U	**0.031 J**	0.079 U	**0.032 J**	0.4 U	N/A	0.068 U	0.086 U	N/A	0.069 U	0.073 U
Di-n-ocytlphthalate	mg/kg	8,200	0.074 U	0.083 U	N/A	0.081 U	0.084 U	0.073 U	0.085 U	0.095 U	0.079 U	0.072 U	0.08 U	N/A	0.068 U	**0.17**	N/A	0.069 U	0.073 U
Fluoranthene	mg/kg	30,000	**0.26**	**1.7**	N/A	**0.22**	**0.0046 J**	**0.13**	**0.0033 J**	0.26 B	**12.1**	0.16 B	**0.65**	N/A	**10.8**	**2.2**	N/A	**8**	**147**
Fluorene	mg/kg	30,000	**0.0092 J**	**0.09**	N/A	**0.02 J**	0.0084 U	**0.0086 J**	**0.0049 J**	**0.012 J**	**1.2**	0.073 U	**0.019 J**	N/A	**0.58**	**0.49**	N/A	**0.45**	**7.4**
Indeno[1,2,3-c,d]pyrene	mg/kg	21	**0.18**	**0.34**	N/A	**0.026 J**	**0.0012 J**	**0.065 J**	0.0085 U	**0.044 J**	**1.5**	**0.037 J**	**0.12**	N/A	**1.7**	**0.25**	N/A	**1.3**	**13.2**
Naphthalene	mg/kg	8.6	**0.082**	**0.51**	N/A	**0.14**	**0.003 J**	**0.055 J**	**0.0061 J**	0.096 U	**0.85**	0.073 U	**0.051 J**	N/A	**0.27**	**0.27**	N/A	**0.21**	**3.6**
N-Nitrosodiphenylamine	mg/kg	470	0.074 U	0.083 U	N/A	0.081 U	0.084 U	0.073 U	0.085 U	0.095 U	0.079 U	0.072 U	0.4 U	N/A	0.068 U	0.086 U	N/A	0.069 U	0.073 U
Pentachlorophenol	mg/kg	4	0.19 U	0.21 U	N/A	0.2 U	0.21 U	0.18 U	0.21 U	0.24 U	0.2 U	0.18 U	1 U	N/A	0.17 U	0.22 U	N/A	0.17 U	**0.073 J**
Phenanthrene	mg/kg		**0.14**	**0.86**	N/A	**0.18**	**0.0033 J**	**0.092**	**0.0072 J**	0.13 B	**8.4**	0.077 B	**0.3**	N/A	**7.6**	**2.1**	N/A	**5.5**	**96**
Phenol	mg/kg	250,000	0.074 U	0.083 U	N/A	**0.024 J**	0.084 U	0.073 U	0.085 U	0.095 U	**0.041 J**	0.072 U	0.08 U	N/A	0.068 U	**0.029 J**	N/A	0.069 U	**0.16**
Pyrene	mg/kg	23,000	**0.25**	**1.4**	N/A	**0.18**	**0.0039 J**	**0.12**	**0.0025 J**	0.21 B	**8.1**	0.17 B	**0.49**	N/A	**8.6**	**1.9**	N/A	**6.5**	**111**
PCBs																			
Aroclor 1242	mg/kg	0.97	0.0535 U	N/A	N/A	0.0765 U	N/A	0.0577 U	N/A	0.143 U	N/A	0.0552 U	N/A	N/A	0.0644 U	N/A	N/A	0.0548 U	N/A
Aroclor 1248	mg/kg	0.94	0.0535 U	N/A	N/A	0.0765 U	N/A	0.0577 U	N/A	**1.48**	N/A	**0.121**	N/A	N/A	0.0644 U	N/A	N/A	0.0548 U	N/A
Aroclor 1254	mg/kg	0.97	0.0535 U	N/A	N/A	0.0765 U	N/A	0.0577 U	N/A	**0.978**	N/A	**0.148**	N/A	N/A	0.0644 U	N/A	N/A	0.0548 U	N/A
Aroclor 1260	mg/kg	0.99	0.0535 U	N/A	N/A	0.0765 U	N/A	0.0577 U	N/A	0.143 U	N/A	0.0552 U	N/A	N/A	0.0644 U	N/A	N/A	0.0548 U	N/A
Aroclor 1262	mg/kg		**0.0594**	N/A	N/A	0.0765 U	N/A	**0.0431 J**	N/A	**2.32**	N/A	**1.29**	N/A	N/A	0.0644 U	N/A	N/A	**0.0884**	N/A
Aroclor 1268	mg/kg		0.0535 U	N/A	N/A	0.0765 U	N/A	0.0577 U	N/A	0.143 U	N/A	0.0552 U	N/A	N/A	**1.98**	N/A	N/A	0.0548 U	N/A
PCBs (total)	mg/kg	0.97	**0.0594**	N/A	N/A	0.0765 U	N/A	**0.0431 J**	N/A	**4.778**	N/A	**1.559**	N/A	N/A	**1.98**	N/A	N/A	**0.0884**	N/A
TPH/Oil & Grease																			
Diesel Range Organics	mg/kg	6,200	**36.9**	**786**	**6.5 J**	**16.7**	**8.4**	**487**	**13.5**	**75.1**	**106**	**545**	**5,150**	**62.9**	**198**	**6,670**	**835**	**233**	**855**
Gasoline Range Organics	mg/kg	6,200	11.2 U	11.9 U	N/A	14.6 U	10.2 U	13.4 U	10.3 U	16.8 U	9.7 U	11.4 U	10.1 U	N/A	9.6 U	**22.6**	N/A	10.4 U	9.3 U
Oil & Grease	mg/kg	6,200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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
^ PAH compounds were analyzed via SIM
Not included in SLRA due to excavation

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.
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 or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this analyte in the sample.

Table 1 - Sub-Parcel B22-2
Summary of Organics Detected in Soil

Parameter	Units	PAL	B22-152-SB-1* 5/19/2016	B22-152-SB-6* 5/19/2016	B22-153-SB-1 5/19/2016	B22-153-SB-4 5/19/2016	B22-156-SB-1* 5/20/2016	B22-156-SB-4.5* 5/20/2016	B22-157-SB-1* 5/20/2016	B22-158-SB-1* 5/18/2016	B22-158-SB-8* 5/18/2016	B22-159-SB-1 5/19/2016	B22-167-SB-1* 5/18/2016	B22-167-SB-5* 5/18/2016	B22-167-SB-10 5/18/2016	B22-174-SB-1* 6/3/2016	B22-174-SB-4* 6/3/2016	B22-176-SB-1* 6/6/2016	B22-176-SB-8* 6/6/2016
Volatile Organic Compounds																			
1,1,1-Trichloroethane	mg/kg	36,000	0.0051 U	0.25 U	0.0057 U	0.24 U	0.0049 U	0.0047 U	0.0062 U	0.0045 U	0.0049 U	0.0055 U	0.0063 U	0.0043 U	N/A	0.0065 U	0.0053 U	0.0047 U	0.0048 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	mg/kg	170,000	0.051 U	2.5 U	0.057 U	2.4 U	0.049 U	0.047 U	0.062 U	0.045 U	0.049 U	0.055 U	0.063 U	0.043 U	N/A	0.065 U	0.053 U	0.047 U	0.048 U
1,1-Dichloroethane	mg/kg	16	0.0051 U	0.25 U	0.0057 U	0.24 U	0.0049 U	0.0047 U	0.0062 U	0.0045 U	0.0049 U	0.0055 U	0.0063 U	0.0043 U	N/A	0.0065 U	0.0053 U	0.0047 U	0.0048 U
1,1-Dichloroethene	mg/kg	1,000	0.0051 U	0.25 U	0.0057 U	0.24 U	0.0049 U	0.0047 U	0.0062 U	0.0045 U	0.0049 U	0.0055 U	0.0063 U	0.0043 U	N/A	0.0065 U	0.0053 U	0.0047 U	0.0048 U
1,2,3-Trichlorobenzene	mg/kg	930	0.0051 U	0.25 U	0.0057 U	0.24 U	0.0049 U	0.0047 U	0.0062 U	0.0045 U	0.0049 U	0.0055 U	0.0063 U	0.0043 U	N/A	0.0065 U	0.0053 U	0.0047 U	0.0048 U
1,2-Dichloroethane	mg/kg	2	0.0051 U	0.25 U	0.0057 U	0.24 U	0.0049 U	0.0047 U	0.0062 U	0.0045 U	0.0049 U	0.0055 U	0.0063 U	0.0043 U	N/A	0.0065 U	0.0053 U	0.0047 U	0.0048 U
1,2-Dichloroethene (Total)	mg/kg	2,300	0.01 U	0.5 U	0.011 U	0.48 U	0.0098 U	0.0094 U	0.012 U	0.0089 U	0.0098 U	0.011 U	0.013 U	0.0085 U	N/A	0.013 U	0.011 U	0.0093 U	0.0096 U
2-Butanone (MEK)	mg/kg	190,000	0.01 U	0.5 U	0.011 U	0.48 U	0.0098 U	**0.0024 J**	**0.0078 J**	0.0089 U	0.0098 U	0.011 U	0.013 U	0.0085 U	N/A	0.013 U	0.011 U	0.0093 U	**0.0037 J**
2-Hexanone	mg/kg	1,300	0.01 U	0.5 U	0.011 U	0.48 U	0.0098 U	0.0094 U	**0.0023 J**	0.0089 U	0.0098 U	0.011 U	0.013 U	0.0085 U	N/A	0.013 U	0.011 U	0.0093 U	0.0096 U
4-Methyl-2-pentanone (MIBK)	mg/kg	56,000	0.01 U	0.5 U	0.011 U	0.48 U	0.0098 U	0.0094 U	0.012 U	0.0089 U	0.0098 U	0.011 U	0.013 U	0.0085 U	N/A	0.013 U	0.011 U	0.0093 U	0.0096 U
Acetone	mg/kg	670,000	0.01 U	0.5 U	0.011 U	0.48 U	0.0098 U	**0.015**	**0.075**	**0.0065 J**	**0.0076 J**	0.011 U	0.013 U	0.0085 U	N/A	**0.013 J**	**0.0063 J**	**0.0067 J**	**0.034**
Benzene	mg/kg	5.1	0.0051 U	0.25 U	0.0057 U	0.24 U	0.0049 U	0.0047 U	0.0062 U	0.0045 U	0.0049 U	0.0055 U	0.0063 U	0.0043 U	N/A	0.0065 U	0.0053 U	0.0047 U	0.0048 U
Carbon tetrachloride	mg/kg	2.9	0.0051 U	0.25 U	0.0057 U	0.24 U	0.0049 U	0.0047 U	0.0062 U	0.0045 U	0.0049 U	0.0055 U	0.0063 U	0.0043 U	N/A	0.0065 U	0.0053 U	0.0047 U	0.0048 U
Chloroform	mg/kg	1.4	0.0051 U	0.25 U	0.0057 U	0.24 U	0.0049 U	0.0047 U	0.0062 U	0.0045 U	0.0049 U	0.0055 U	0.0063 U	0.0043 U	N/A	0.0065 U	0.0053 U	0.0047 U	0.0048 U
cis-1,2-Dichloroethene	mg/kg	2,300	0.0051 U	0.25 U	0.0057 U	0.24 U	0.0049 U	0.0047 U	0.0062 U	0.0045 U	0.0049 U	0.0055 U	0.0063 U	0.0043 U	N/A	0.0065 U	0.0053 U	0.0047 U	0.0048 U
Cyclohexane	mg/kg	27,000	0.01 U	0.5 U	0.011 U	0.48 U	0.0098 U	0.0094 U	0.012 U	0.0089 U	0.0098 U	0.011 U	0.013 U	0.0085 U	N/A	0.013 U	0.011 U	0.0093 U	0.0096 U
Ethylbenzene	mg/kg	25	0.0051 U	**0.15 J**	0.0057 U	**0.18 J**	0.0049 U	0.0047 U	0.0062 U	0.0045 U	0.0049 U	0.0055 U	0.0063 U	0.0043 U	N/A	0.0065 U	0.0053 U	0.0047 U	0.0048 U
Isopropylbenzene	mg/kg	9,900	0.0051 U	**0.32**	0.0057 U	**0.17 J**	0.0049 U	0.0047 U	0.0062 U	0.0045 U	0.0049 U	0.0055 U	0.0063 U	0.0043 U	N/A	0.0065 U	0.0053 U	0.0047 U	0.0048 U
Methyl Acetate	mg/kg	1,200,000	0.051 U	2.5 U	0.057 U	**1.3 J**	0.049 U	0.047 U	0.062 U	0.045 U	0.049 U	0.055 U	0.063 U	0.043 U	N/A	0.065 U	0.053 U	0.047 U	0.048 U
Styrene	mg/kg	35,000	0.0051 U	0.25 U	0.0057 U	0.24 U	0.0049 U	0.0047 U	0.0062 U	0.0045 U	0.0049 U	0.0055 U	0.0063 U	0.0043 U	N/A	0.0065 U	0.0053 U	0.0047 U	0.0048 U
Tetrachloroethene	mg/kg	100	0.0051 U	0.25 U	0.0057 U	0.24 U	0.0049 U	0.0047 U	0.0062 U	0.0045 U	0.0049 U	0.0055 U	0.0063 U	0.0043 U	N/A	0.0065 U	0.0053 U	0.0047 U	0.0048 U
Toluene	mg/kg	47,000	0.0051 U	0.25 U	0.0057 U	0.24 U	0.0049 U	0.0047 U	0.0062 U	0.0045 U	0.0049 U	0.0055 U	0.0063 U	0.0043 U	N/A	0.0065 U	0.0053 U	0.0047 U	0.0048 U
trans-1,2-Dichloroethene	mg/kg	23,000	0.0051 U	0.25 U	0.0057 U	0.24 U	0.0049 U	0.0047 U	0.0062 U	0.0045 U	0.0049 U	0.0055 U	0.0063 U	0.0043 U	N/A	0.0065 U	0.0053 U	0.0047 U	0.0048 U
Trichloroethene	mg/kg	6	0.0051 U	0.25 U	0.0057 U	0.24 U	0.0049 U	0.0047 U	0.0062 U	0.0045 U	0.0049 U	0.0055 U	0.0063 U	0.0043 U	N/A	0.0065 U	0.0053 U	0.0047 U	0.0048 U
Vinyl chloride	mg/kg	1.7	0.0051 U	0.25 U	0.0057 U	0.24 U	0.0049 U	0.0047 U	0.0062 U	0.0045 U	0.0049 U	0.0055 U	0.0063 U	0.0043 U	N/A	0.0065 U	0.0053 U	0.0047 U	0.0048 U
Xylenes	mg/kg	2,800	0.015 U	**0.93**	0.017 U	**0.96**	0.015 U	0.014 U	**0.0052 J**	0.013 U	0.015 U	0.017 U	0.019 U	0.013 U	N/A	0.019 U	0.016 U	0.014 U	0.014 U
Semi-Volatile Organic Compounds^																			
1,1-Biphenyl	mg/kg	200	**0.03 J**	**3.2**	0.086 U	**0.4**	0.073 U	0.081 U	0.078 U	**0.021 J**	**0.016 J**	0.073 U	0.073 U	0.078 U	N/A	**0.16**	**0.019 J**	0.072 U	0.077 U
1,2,4,5-Tetrachlorobenzene	mg/kg	350	0.083 U	0.35 U	0.086 U	0.073 U	0.073 U	0.081 U	0.078 U	0.071 U	0.07 U	0.073 U	0.073 U	0.078 U	N/A	0.076 U	0.082 U	0.072 U	0.077 U
2,4-Dimethylphenol	mg/kg	16,000	0.083 U	0.35 U	0.086 U	0.37 UJ	0.073 U	0.081 U	0.078 U	0.071 U	0.07 U	0.073 U	0.073 U	0.078 U	N/A	0.076 U	0.082 U	0.072 U	0.077 U
2-Chloronaphthalene	mg/kg	60,000	0.083 U	0.35 U	0.086 U	0.073 U	0.073 U	0.081 U	0.078 U	0.071 U	0.07 U	0.073 U	0.073 U	0.078 U	N/A	0.076 U	0.082 U	0.072 U	0.077 U
2-Methylnaphthalene	mg/kg	3,000	**0.1**	**66.1**	**0.046 J**	**10.6**	0.074 U	0.0081 U	**0.043 J**	**0.066**	**0.048**	**0.018**	0.0073 U	0.0078 U	N/A	**0.024 J**	0.081 U	**0.11**	**0.074 J**
2-Methylphenol	mg/kg	41,000	0.083 U	0.35 U	0.086 U	0.073 UJ	0.073 U	0.081 U	0.078 U	0.071 U	0.07 U	0.073 U	0.073 U	0.078 U	N/A	0.076 U	0.082 U	0.072 U	0.077 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	0.17 U	0.7 U	0.17 U	0.15 UJ	0.14 U	0.16 U	0.16 U	0.14 U	0.14 U	0.14 U	0.15 U	0.15 U	N/A	0.15 U	0.16 U	0.14 U	0.15 U
3,3'-Dichlorobenzidine	mg/kg	5.1	0.083 U	0.07 U	0.086 UJ	0.073 UJ	0.073 U	0.081 U	0.078 U	0.071 U	0.07 U	0.073 U	0.073 U	0.078 U	N/A	0.076 U	0.082 U	0.072 U	0.077 U
4-Nitroaniline	mg/kg	110	0.21 U	0.88 U	0.21 U	0.18 U	0.18 U	0.2 U	0.19 U	0.18 U	0.18 U	0.18 U	0.18 U	0.19 U	N/A	0.19 U	0.21 U	0.18 U	0.19 U
Acenaphthene	mg/kg	45,000	0.082 U	**3.8**	0.088 U	**1**	0.074 U	0.0081 U	**0.0068 J**	**0.0035 J**	**0.0049 J**	**0.0015 J**	0.0073 U	0.0078 U	N/A	0.077 U	**0.0082 J**	**0.29**	**0.014 J**
Acenaphthylene	mg/kg	45,000	**0.037 J**	**0.66**	**0.018 J**	**0.19**	**0.013 J**	0.0081 U	**0.032 J**	**0.018**	**0.0089**	**0.0031 J**	0.0073 U	0.0078 U	N/A	**0.02 J**	**0.031 J**	**0.018**	**0.22**
Acetophenone	mg/kg	120,000	0.083 U	0.35 U	0.086 U	0.073 U	0.073 U	0.081 U	0.078 U	0.071 U	0.07 U	0.073 U	0.073 U	0.078 U	N/A	0.076 U	0.082 U	0.072 U	0.077 U
Anthracene	mg/kg	230,000	**0.057 J**	**1.4**	**0.03 J**	**0.8**	**0.036 J**	0.0081 U	**0.046 J**	**0.02**	**0.031**	**0.009**	0.0073 U	0.0078 U	N/A	**0.051 J**	**0.058 J**	**0.69**	**0.35**
Benz[a]anthracene	mg/kg	21	**0.034 J**	**1.2**	**0.033 J**	**0.18**	**0.15**	0.0081 U	**0.2**	**0.099**	**0.14**	**0.056**	**0.0038 J**	0.0078 U	N/A	**0.52**	**0.44**	**0.93**	**2.4**
Benzaldehyde	mg/kg	120,000	**0.065 J**	0.35 U	**0.023 J**	0.073 R	**0.029 J**	0.081 U	**0.022 J**	0.071 U	0.07 U	0.073 R	0.073 U	0.078 U	N/A	**0.017 J**	0.082 U	0.072 U	0.077 U
Benzo[a]pyrene	mg/kg	2.1	**0.05 J**	**0.91**	**0.027 J**	**0.14**	**0.098**	0.0081 U	**0.19**	**0.14**	**0.15**	**0.072**	0.0073 U	0.0078 U	0.0085 U	**0.57**	**0.52**	**0.61**	**2.2**
Benzo[b]fluoranthene	mg/kg	21	**0.11**	**2**	**0.069 J**	**0.28**	**0.26**	0.0081 U	**0.43**	**0.3**	**0.31**	**0.16**	**0.0068 J**	0.0078 U	0.0085 U	**1.2**	**1.1**	**1.3**	**4.6**
Benzo[g,h,i]perylene	mg/kg		**0.4**	**0.62**	**0.026 J**	**0.047 J**	**0.046 J**	0.0081 U	**0.059 J**	**0.075**	**0.11**	**0.036**	**0.00091 J**	0.0078 U	N/A	**0.38**	**0.27**	**0.3**	**1.3**
Benzo[k]fluoranthene	mg/kg	210	**0.093**	**1.9**	**0.058 J**	**0.23**	**0.22**	0.0081 U	**0.35**	**0.28**	**0.27**	**0.14**	**0.0065 J**	0.0078 U	N/A	**0.93**	**0.96**	**1.1**	**4**
bis(2-Ethylhexyl)phthalate	mg/kg	160	0.083 U	**0.15**	0.026 B	0.073 UJ	**0.048 J**	0.081 U	0.078 U	0.071 U	0.07 U	0.073 U	0.073 U	0.078 U	N/A	**0.062 J**	0.082 U	0.072 U	0.077 U
Carbazole	mg/kg		0.083 U	0.35 U	0.086 U	0.073 U	**0.019 J**	0.081 U	0.078 U	0.071 U	0.07 U	0.073 U	0.073 U	0.078 U	N/A	0.076 U	0.082 U	0.072 U	**0.081**
Chrysene	mg/kg	2,100	**0.037 J**	**1.5**	**0.03 J**	**0.25**	**0.13 J**	0.0081 U	**0.18**	**0.12**	**0.14**	**0.056**	**0.0061 J**	0.0078 U	N/A	**0.44**	**0.44**	**0.85**	**2.3**
Dibenz[a,h]anthracene	mg/kg	2.1	**0.048 J**	**0.19**	0.088 U	**0.018 J**	**0.014 J**	0.0081 U	0.078 U	**0.026**	**0.027**	**0.011**	0.0073 U	0.0078 U	N/A	**0.12**	**0.089**	**0.14**	**0.49**
Diethylphthalate	mg/kg	660,000	0.083 U	0.35 U	0.086 U	0.073 U	0.073 U	0.081 U	0.078 U	0.071 U	0.07 U	0.073 U	0.073 U	0.078 U	N/A	0.076 U	0.082 U	0.072 U	0.077 U
Di-n-butylphthalate	mg/kg	82,000	**0.031 J**	0.35 U	0.086 U	0.073 U	**0.028 J**	0.081 U	0.078 U	0.071 U	0.07 U	0.073 U	0.073 U	0.078 U	N/A	0.076 U	0.082 U	0.072 U	0.077 U
Di-n-ocytlphthalate	mg/kg	8,200	0.083 U	0.07 U	0.086 UJ	0.073 UJ	0.073 U	0.081 U	0.078 U	0.071 U	0.07 U	0.073 U	0.073 U	0.078 U	N/A	0.076 U	0.082 U	0.072 U	0.077 U
Fluoranthene	mg/kg	30,000	**0.041 J**	**3.1**	**0.04 J**	**0.46**	**0.29**	0.0081 U	**0.32**	**0.13**	**0.21**	**0.065**	**0.0073 J**	0.0078 U	N/A	**0.52**	**0.38**	**1.5**	**3.7**
Fluorene	mg/kg	30,000	**0.019 J**	**5.1**	**0.012 J**	**0.86**	0.074 U	0.0081 U	**0.01 J**	**0.0037 J**	**0.0071**	**0.0013 J**	0.0073 U	0.0078 U	N/A	0.077 U	**0.01 J**	**0.34**	**0.048 J**
Indeno[1,2,3-c,d]pyrene	mg/kg	21	**0.02 J**	**0.55**	**0.016 J**	**0.034 J**	**0.037 J**	0.0081 U	**0.06 J**	**0.081**	**0.1**	**0.032 J**	0.0073 U	0.0078 U	N/A	**0.33**	**0.25**	**0.32**	**1.3**
Naphthalene	mg/kg	8.6	**0.057 J**	**10**	0.039 B	**1.1**	**0.026 J**	0.0081 U	**0.036 J**	**0.054**	**0.027**	**0.02**	**0.0023 J**	0.0078 U	N/A	**0.022 J**	**0.033 J**	**0.074**	**0.14**
N-Nitrosodiphenylamine	mg/kg	470	0.083 U	0.35 U	0.086 U	0.073 U	0.073 U	0.081 U	0.078 U	0.071 U	0.07 U	0.073 U	0.073 U	0.078 U	N/A	0.076 U	0.082 U	0.072 U	0.077 U
Pentachlorophenol	mg/kg	4	0.21 U	0.88 U	0.21 U	0.18 UJ	0.18 U	0.2 U	0.19 U	0.18 U	0.18 U	0.18 U	0.18 U	0.19 U	N/A	0.19 U	0.21 U	0.18 U	0.19 U
Phenanthrene	mg/kg		**0.045 J**	**13.2**	**0.039 J**	**3.6**	**0.11**	**0.00074 J**	**0.18**	**0.078**	**0.12**	**0.037**	**0.0028 J**	0.0078 U	N/A	**0.14**	**0.16**	**1.8**	**0.64**
Phenol	mg/kg	250,000	0.083 U	0.35 U	0.086 U	0.073 UJ	0.073 U	0.081 U	0.078 U	0.071 U	0.07 U	0.073 U	0.073 U	0.078 U	N/A	0.076 U	0.082 U	0.072 U	0.077 U
Pyrene	mg/kg	23,000	**0.049 J**	**3.3**	**0.041 J**	**0.74**	**0.31**	0.0081 U	**0.27**	**0.12**	**0.19**	**0.059**	**0.0045 J**	0.0078 U	N/A	**0.5**	**0.34**	**1.1**	**2.9**
PCBs																			
Aroclor 1242	mg/kg	0.97	0.0541 U	N/A	**1.01**	N/A	0.0551 U	N/A	0.0598 U	0.0583 U	N/A	0.055 U	0.0538 U	N/A	N/A	0.231 U	N/A	0.0539 U	N/A
Aroclor 1248	mg/kg	0.94	0.0541 U	N/A	0.0657 U	N/A	**0.0719**	N/A	0.0598 U	0.0583 U	N/A	0.055 U	0.0538 U	N/A	N/A	0.231 U	N/A	0.0539 U	N/A
Aroclor 1254	mg/kg	0.97	0.0541 U	N/A	0.0657 U	N/A	**0.0463 J**	N/A	0.0598 U	0.0583 U	N/A	0.055 U	0.0538 U	N/A	N/A	**6.63**	N/A	0.0539 U	N/A
Aroclor 1260	mg/kg	0.99	0.0541 U	N/A	0.0657 U	N/A	0.0551 U	N/A	0.0598 U	0.0583 U	N/A	0.055 U	0.0538 U	N/A	N/A	**2.72**	N/A	0.0539 U	N/A
Aroclor 1262	mg/kg		0.0541 U	N/A	**0.0271 J**	N/A	**0.0556**	N/A	0.0598 U	**0.0405 J**	N/A	**0.0547 J**	0.0538 U	N/A	N/A	0.231 U	N/A	0.0539 U	N/A
Aroclor 1268	mg/kg		0.0541 U	N/A	0.0657 U	N/A	0.0551 U	N/A	**0.133**	0.0583 U	N/A	0.055 U	0.0538 U	N/A	N/A	0.231 U	N/A	0.0539 U	N/A
PCBs (total)	mg/kg	0.97	0.0541 U	N/A	**1.0371**	N/A	**0.1738**	N/A	**0.133**	**0.0405 J**	N/A	**0.0547 J**	0.0538 U	N/A	N/A	**9.35**	N/A	0.0539 U	N/A
TPH/Oil & Grease																			
Diesel Range Organics	mg/kg	6,200	**859**	**6,610**	**339 J**	**2,630 J**	**55.7**	**3.3 J**	**207**	**38.8**	**67.7**	**31.7 J**	**6.5 J**	**3 J**	N/A	**149**	**257**	**102**	**112**
Gasoline Range Organics	mg/kg	6,200	11.2 U	**93.4**	11.3 U	**75.1**	9.9 U	9.6 U	10.5 U	9.8 U	10.5 U	10.5 U	**18.5**	9.2 U	N/A	11.2 U	11.2 U	9.6 U	9.2 U
Oil & Grease	mg/kg	6,200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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
^ PAH compounds were analyzed via SIM
Not included in SLRA due to excavation

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R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this analyte in the sample.

Table 2 - Sub-Parcel B22-2
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B21-013-SB-3.5	B21-013-SB-5	B21-014-SB-2*	B21-014-SB-8*	B21-019-SB-2*	B21-019-SB-7*	B21-020-SB-4*	B21-020-SB-5*
			9/5/2018	9/5/2018	7/23/2018	7/23/2018	7/24/2018	7/24/2018	9/6/2018	9/6/2018
Metals										
Aluminum	mg/kg	1,100,000	**10,100**	**12,700**	**23,200**	**9,740**	**40,200**	**40,700**	**8,610**	**5,620**
Antimony	mg/kg	470	2.7 UJ	2.4 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.4 U	2.4 U
Arsenic	mg/kg	3	**7.3**	**13.9**	2.1 U	**16.6**	2.1 U	2.1 U	**7.8**	**11.2**
Barium	mg/kg	220,000	**161 J**	**171 J**	**131**	**182**	**319**	**310**	**99.3**	**90.8**
Beryllium	mg/kg	2,300	0.91 U	0.8 U	**2.7**	**1**	**7.3**	**6.6**	0.8 U	0.79 U
Cadmium	mg/kg	980	**2.5**	**1.1 J**	**0.43 J**	1.2 U	1.3 U	1.3 U	**0.67 J**	**0.79 J**
Chromium	mg/kg	120,000	**290**	**2,020**	**12.1**	**2,570**	**3.8**	**11.6**	**752**	**1,070**
Chromium VI	mg/kg	6.3	1.2 U	1.1 U	1 U	**2**	1.1 U	1.1 U	1 U	1 U
Cobalt	mg/kg	350	**9.7**	**3.8 J**	**2.6 J**	**6.6**	4.2 U	4.2 U	**27.6**	**11.7**
Copper	mg/kg	47,000	**129**	**86.1**	**6.6**	**75.2**	4.2 U	4.2 U	**64.7**	**138**
Iron	mg/kg	820,000	**46,100**	**89,400**	**9,490**	**117,000**	**7,260**	**7,950**	**197,000**	**222,000**
Lead	mg/kg	800	**361**	**223**	**5.5**	**127**	**3.4**	**7.4**	**126**	**103**
Manganese	mg/kg	26,000	**6,090**	**37,400**	**812**	**39,700**	**1,970**	**1,320**	**13,600**	**21,900**
Mercury	mg/kg	350	**0.15**	**0.061 J**	0.11 U	**0.057 J**	0.11 U	0.11 U	0.1 U	0.1 U
Nickel	mg/kg	22,000	**30.7**	**21.2**	**6.9 J**	**29**	8.4 U	**1.1 J**	**54.3**	**145**
Selenium	mg/kg	5,800	3.6 U	**4.1**	3.3 U	3.3 U	3.4 U	3.3 U	3.2 U	**3.1 J**
Silver	mg/kg	5,800	**11.1**	**65.5**	2.5 U	**2.7**	2.5 U	2.5 U	**36.2**	**52.3**
Thallium	mg/kg	12	9.1 UJ	8 UJ	8.3 U	**178**	8.4 U	8.3 U	8 U	7.9 U
Vanadium	mg/kg	5,800	**1,160**	**13,400**	**26.7**	**11,500**	**28.2**	**59.3**	**1,650**	**2,330**
Zinc	mg/kg	350,000	**1,620**	**1,160**	**22.3**	**185**	4.2 U	**9**	**157**	**204**
Other										
Cyanide	mg/kg	150	**0.48 J-**	**0.22 J-**	0.96 U	**0.63 J**	**0.29 J**	**0.32 J**	**0.51 J**	**0.39 J**

Detections in bold
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Table 2 - Sub-Parcel B22-2
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B21-020-SB-10*	B21-021-SB-1*	B21-021-SB-5*	B21-022-SB-1.5*	B21-022-SB-9*	B21-023-SB-2*	B21-023-SB-5*	B21-024-SB-2*
			9/6/2018	7/24/2018	7/24/2018	7/23/2018	7/23/2018	7/23/2018	7/23/2018	7/23/2018
Metals										
Aluminum	mg/kg	1,100,000	N/A	**32,700**	**6,040**	**10,700**	**6,940**	**52,000**	**53,100**	**16,200**
Antimony	mg/kg	470	N/A	2.7 U	2.5 U	2.4 U	2.5 U	2.5 U	2.6 U	2.6 U
Arsenic	mg/kg	3	**4.2**	2.2 U	2.1 U	**9.6**	**6.3**	2.1 U	2.2 U	**9.8**
Barium	mg/kg	220,000	N/A	**360**	**27.4**	**106**	**72**	**551**	**600**	**181**
Beryllium	mg/kg	2,300	N/A	**3.7**	**0.19 J**	**0.96**	**0.53 J**	**6.8**	**6.7**	**1.7**
Cadmium	mg/kg	980	N/A	1.3 U	1.3 U	**0.49 J**	1.2 U	1.3 U	1.3 U	1.3 U
Chromium	mg/kg	120,000	N/A	**73.5**	**9.6**	**693**	**1,100**	**3**	**3**	**1,010**
Chromium VI	mg/kg	6.3	N/A	1.1 U	1.1 U	1 U	**1.1**	1.1 U	1.1 U	1.1 U
Cobalt	mg/kg	350	N/A	**1.8 J**	**2 J**	**3.7 J**	4.1 U	4.2 U	4.3 U	**4.3 J**
Copper	mg/kg	47,000	N/A	**14.7**	**5.9**	**54.9**	**29.8**	4.2 U	**6.9**	**70.8**
Iron	mg/kg	820,000	N/A	**17,200**	**7,160**	**131,000**	**170,000**	**6,320**	**4,840**	**124,000**
Lead	mg/kg	800	N/A	**29.4**	**7.1**	**134**	**20.9**	**3**	**3.6**	**84.2**
Manganese	mg/kg	26,000	N/A	**4,260**	**70**	**19,700**	**62,300**	**1,960**	**1,570**	**33,500**
Mercury	mg/kg	350	N/A	**0.057 J**	**0.02 J**	**0.07 J**	0.097 U	0.1 U	0.1 U	**0.069 J**
Nickel	mg/kg	22,000	N/A	**8.1 J**	**4.7 J**	**42.3**	**10.2**	8.4 U	8.6 U	**19.6**
Selenium	mg/kg	5,800	N/A	3.6 U	3.4 U	3.2 U	3.3 U	3.3 U	3.5 U	3.5 U
Silver	mg/kg	5,800	N/A	2.7 U	2.5 U	2.4 U	**2.3 J**	2.5 U	2.6 U	2.6 U
Thallium	mg/kg	12	N/A	9 U	8.4 U	**22.4**	**68.6**	8.4 U	8.6 U	**45**
Vanadium	mg/kg	5,800	N/A	**180**	**15.3**	**1,590**	**4,900**	**19.1**	**19.6**	**3,110**
Zinc	mg/kg	350,000	N/A	**58.2**	**16.8**	**845**	**63.9**	3.6 B	0.92 B	**384**
Other										
Cyanide	mg/kg	150	N/A	**0.59 J**	1.1 U	**0.5 J**	**0.13 J**	**0.23 J**	0.96 U	**0.6 J**

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Table 2 - Sub-Parcel B22-2
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B21-024-SB-5*	B21-032-SB-1	B21-032-SB-5	B21-033-SB-2.5*	B21-033-SB-5*	B21-034-SB-3*	B21-034-SB-4*	B21-035-SB-1
			7/23/2018	7/25/2018	7/25/2018	9/6/2018	9/6/2018	9/6/2018	9/6/2018	7/25/2018
Metals										
Aluminum	mg/kg	1,100,000	**12,000**	**34,400**	**15,700**	**12,000**	**8,200**	**8,180**	**6,560**	**40,800**
Antimony	mg/kg	470	2.4 U	2.7 UJ	2.8 UJ	**4.3**	**2.6**	**2.2 J**	**2.1 J**	2.5 UJ
Arsenic	mg/kg	3	**11.7**	**2.9**	**6.4**	**9.1**	**11.3**	**7.9**	**7.2**	**2.6**
Barium	mg/kg	220,000	**225**	**366 J**	**133 J**	**127**	**75.3**	**63.4**	**90.5**	**382 J**
Beryllium	mg/kg	2,300	**1.2**	**6**	**1.4**	0.83 U	0.83 U	0.83 U	0.81 U	**6.7**
Cadmium	mg/kg	980	**0.79 J**	1.3 U	1.4 U	**0.85 J**	**1.2 J**	**0.91 J**	**1.2 J**	1.3 U
Chromium	mg/kg	120,000	**1,270**	**213**	**468**	**1,070**	**976**	**980**	**675**	**158**
Chromium VI	mg/kg	6.3	1 U	1.1 R	1.2 R	1.1 U	1.1 U	1.1 U	1.1 U	1.1 R
Cobalt	mg/kg	350	**4 J**	**2.2 J**	**3.2 J**	**6.8**	**6.3**	**4.9**	**6.8**	4.2 U
Copper	mg/kg	47,000	**54.7**	**55 J**	**51 J**	**28.4**	**68.2**	**28.2**	**45.8**	**12.5 J**
Iron	mg/kg	820,000	**166,000**	**42,300 J**	**109,000 J**	**133,000**	**124,000**	**172,000**	**110,000**	**24,300 J**
Lead	mg/kg	800	**164**	**58.5 J**	**65.3 J**	**120**	**123**	**58.7**	**97.4**	**11.8 J**
Manganese	mg/kg	26,000	**41,100**	**7,490 J**	**14,800 J**	**30,200**	**25,200**	**34,200**	**21,300**	**5,300 J**
Mercury	mg/kg	350	**0.017 J**	**0.068 J**	**0.036 J**	**0.052 J**	**1.8**	**0.022 J**	**0.0063 J**	0.11 U
Nickel	mg/kg	22,000	**22.5**	**13.5 J**	**15.3 J**	**13.2**	**26**	**14.5**	**21**	**3.4 J**
Selenium	mg/kg	5,800	3.2 U	3.5 UJ	3.8 UJ	**6.5**	**4**	**5.4**	**3 J**	3.4 UJ
Silver	mg/kg	5,800	**1.5 J**	2.7 U	2.8 U	**96.4**	**74.4**	**91.2**	**66.3**	2.5 U
Thallium	mg/kg	12	**64.5**	**5.9 J**	**12.6**	8.3 U	8.3 U	8.3 U	8.1 U	**5 J**
Vanadium	mg/kg	5,800	**4,550**	**449**	**894**	**3,540**	**2,280**	**3,980**	**2,250**	**271**
Zinc	mg/kg	350,000	**586**	**132 J**	**271 J**	**234**	**423**	**285**	**402**	**37 J**
Other										
Cyanide	mg/kg	150	**0.61 J**	**1.3 J-**	**2.4 J-**	**0.28 J**	**0.76 J**	**0.4 J**	**1.1**	**2.3 J-**

Detections in bold

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Table 2 - Sub-Parcel B22-2
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B21-035-SB-5	B21-049-SB-1*	B21-049-SB-5*	B21-049-SB-10	B21-050-SB-2*	B21-050-SB-8*	B21-053-SB-2*	B21-054-SB-1*
			7/25/2018	7/24/2018	7/24/2018	7/24/2018	7/24/2018	7/24/2018	9/6/2018	7/24/2018
Metals										
Aluminum	mg/kg	1,100,000	**41,700**	**8,790**	**5,630**	N/A	**18,400**	**14,400**	**15,800**	**24,700**
Antimony	mg/kg	470	2.7 UJ	2.5 U	2.8 U	N/A	2.6 U	2.8 U	2.5 U	2.9 U
Arsenic	mg/kg	3	2.2 U	**12.3**	**7.9**	**5.1**	**6**	**7.4**	**5.3**	**11.3**
Barium	mg/kg	220,000	**401 J**	**116**	**107**	N/A	**200**	**57.3**	**154**	**345**
Beryllium	mg/kg	2,300	**7.3**	**0.77 J**	**0.3 J**	N/A	**1.9**	**0.66 J**	**1.5**	**2.7**
Cadmium	mg/kg	980	1.3 U	1.2 U	1.4 U	N/A	**0.32 J**	1.4 U	**1.1 J**	1.5 U
Chromium	mg/kg	120,000	**105**	**1,990**	**411**	N/A	**357**	**34.4**	**835**	**523**
Chromium VI	mg/kg	6.3	1.2 R	1 U	1.2 U	N/A	1.1 U	**0.82 J**	1 U	1.2 U
Cobalt	mg/kg	350	4.5 U	4.1 U	**19.7**	N/A	**4.5**	**4.8**	**9.8**	**25.5**
Copper	mg/kg	47,000	**3.1 J**	**36.3**	**111**	N/A	**56.1**	**12.6**	**46.9**	**69.6**
Iron	mg/kg	820,000	**13,100 J**	**133,000**	**59,100**	N/A	**54,300**	**22,000**	**123,000**	**154,000**
Lead	mg/kg	800	**2.6 J**	**51.4**	**112**	N/A	**188**	**25.5**	**58.6**	**133**
Manganese	mg/kg	26,000	**3,140 J**	**45,100**	**5,050**	N/A	**15,600**	**194**	**21,200**	**19,600**
Mercury	mg/kg	350	0.11 U	**0.022 J**	**0.16**	N/A	**0.044 J**	**0.024 J**	0.098 U	**0.11 J**
Nickel	mg/kg	22,000	**1.5 J**	**16.2**	**121**	N/A	**14.8**	**9.1 J**	**25.7**	**49.2**
Selenium	mg/kg	5,800	3.6 UJ	3.3 U	3.8 U	N/A	3.4 U	3.7 U	**3.5**	3.9 U
Silver	mg/kg	5,800	2.7 U	**1.5 J**	2.8 U	N/A	2.6 U	2.8 U	**22.9**	2.9 U
Thallium	mg/kg	12	9 U	**55.9**	**12.8**	9.8 U	**18.4**	9.3 U	8.3 U	**25.8**
Vanadium	mg/kg	5,800	**90.1**	**4,030**	**859**	N/A	**1,280**	**107**	**656**	**1,740**
Zinc	mg/kg	350,000	**1.2 J**	**152**	**411**	N/A	**1,190**	**43.5**	**216**	**174**
Other										
Cyanide	mg/kg	150	**1.1 J-**	**1.5**	**1.9**	N/A	**0.82 J**	**0.19 J**	**0.92 J**	**0.62 J**

Detections in bold

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Table 2 - Sub-Parcel B22-2
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B21-054-SB-5*	B21-059-SB-1*	B21-060-SB-1	B21-060-SB-4	B21-063-SB-1	B21-063-SB-5	B21-064-SB-2.5	B21-064-SB-5	B21-073-SB-1
			7/24/2018	9/6/2018	7/25/2018	7/25/2018	9/7/2018	9/7/2018	9/5/2018	9/5/2018	7/25/2018
Metals											
Aluminum	mg/kg	1,100,000	**22,300**	**36,400**	**7,610**	**14,200**	**38,000**	**465**	**19,200**	**12,700**	**9,790**
Antimony	mg/kg	470	2.7 U	2.5 U	2.5 UJ	2.6 UJ	2.5 UJ	2.4 UJ	2.6 UJ	2.5 UJ	2.5 UJ
Arsenic	mg/kg	3	**10.4**	2.1 U	**5.8**	**8.1**	**4.3**	2 U	**9.9**	**10.3**	**10.1**
Barium	mg/kg	220,000	**245**	**331**	**79.9 J**	**136 J**	**445**	**3.7 J**	**232 J**	**137 J**	**73.6 J**
Beryllium	mg/kg	2,300	**1.6**	**6.4**	**0.71 J**	**0.72 J**	**5.7**	0.81 U	**1.1**	0.85 U	**0.84 J**
Cadmium	mg/kg	980	1.3 U	**0.43 J**	1.2 U	1.3 U	**1.2 J**	1.2 U	**1.2 J**	**1.8**	1.3 U
Chromium	mg/kg	120,000	**1,630**	**179**	**734**	**1,120**	**106**	**3.9**	**698**	**850**	**1,260**
Chromium VI	mg/kg	6.3	1.1 U	1.1 U	1 R	1.1 R	1.1 U	1 U	1.1 U	1.1 U	1.1 R
Cobalt	mg/kg	350	4.4 U	**3.7 J**	**12.3**	**2.3 J**	**4.8**	4 U	**17**	**14.8**	**23.3**
Copper	mg/kg	47,000	**33.6**	**8**	**50.4 J**	**43.9 J**	**34.8**	4 U	**65.9**	**338**	**82.5 J**
Iron	mg/kg	820,000	**114,000**	**34,800**	**86,400 J**	**101,000 J**	**37,300**	**1,080**	**80,500**	**130,000**	**142,000 J**
Lead	mg/kg	800	**76.7**	**18**	**28.3 J**	**41.5 J**	**60**	2 U	**88.8**	**262**	**77.7 J**
Manganese	mg/kg	26,000	**53,900**	**6,000**	**46,900 J**	**49,300 J**	**3,850**	**26.9**	**29,700**	**24,500**	**35,800 J**
Mercury	mg/kg	350	0.1 U	0.11 U	**0.013 J-**	0.11 UJ	**0.013 J**	0.097 U	**0.059 J**	**0.11**	**0.063 J**
Nickel	mg/kg	22,000	**10.3**	**4.1 J**	**12.2 J**	**10.2 J**	**19.2**	**2.1 J**	**15.9**	**32.2**	**66.6 J**
Selenium	mg/kg	5,800	3.5 U	**4.4**	3.3 UJ	3.4 UJ	**5.1**	3.2 U	**4.5**	3.4 U	3.4 UJ
Silver	mg/kg	5,800	**4.3**	**12**	**2.8**	**3.6**	**13.9**	**0.49 J**	**55.6**	**47.2**	2.5 U
Thallium	mg/kg	12	**14.1**	8.5 U	**55.2**	**24.7**	8.5 U	8.1 U	8.7 UJ	8.5 UJ	**74.4**
Vanadium	mg/kg	5,800	**1,530**	**110**	**2,390**	**1,360**	**184**	**6.6**	**1,290**	**1,100**	**3,010**
Zinc	mg/kg	350,000	**145**	**17.7**	**90.4 J**	**184 J**	**228**	**6.4**	**234**	**1,010**	**156 J**
Other											
Cyanide	mg/kg	150	**0.19 J**	**6.6**	**16.8 J-**	**1.8 J-**	**1.2**	0.95 U	**1.1 J-**	**1 J-**	**3.4 J-**

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Table 2 - Sub-Parcel B22-2
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B21-073-SB-5	B21-073-SB-10*	B21-074-SB-1	B21-074-SB-9	B22-023-SB-1*	B22-023-SB-9*	B22-023-SB-10*	B22-024-SB-1*
			7/25/2018	7/25/2018	7/25/2018	7/25/2018	5/23/2016	5/23/2016	5/23/2016	5/23/2016
Metals										
Aluminum	mg/kg	1,100,000	**13,700**	N/A	**10,100**	**11,000**	**16,800**	**8,220**	N/A	**18,600**
Antimony	mg/kg	470	2.5 UJ	N/A	2.5 UJ	2.8 UJ	2.6 U	2.4 U	N/A	2.5 U
Arsenic	mg/kg	3	**10.5**	**6.9**	**10.8**	**7.9**	**21.4**	**10.5**	2.1 U	**5.9**
Barium	mg/kg	220,000	**111 J**	N/A	**84.8 J**	**87.3 J**	**315**	**47.4**	N/A	**427**
Beryllium	mg/kg	2,300	**0.95**	N/A	**0.65 J**	**0.76 J**	**1.1**	0.82 U	N/A	**1.9**
Cadmium	mg/kg	980	1.3 U	N/A	1.3 U	1.4 U	0.86 B	1.9 B	N/A	1.2 B
Chromium	mg/kg	120,000	**897**	N/A	**795**	**907**	**915**	**857**	N/A	**517**
Chromium VI	mg/kg	6.3	1.1 R	N/A	1.1 R	1.2 R	0.38 B	1 B	N/A	0.62 B
Cobalt	mg/kg	350	**4.6**	N/A	**3.8 J**	**1.5 J**	**15**	**15.9**	N/A	**6.2**
Copper	mg/kg	47,000	**1,540 J**	N/A	**66.8 J**	**59.1 J**	**183**	**170**	N/A	**105**
Iron	mg/kg	820,000	**146,000 J**	N/A	**164,000 J**	**142,000 J**	**109,000**	**133,000**	N/A	**50,200**
Lead	mg/kg	800	**358 J**	N/A	**89.3 J**	**94.3 J**	**336**	**86.9**	N/A	**237**
Manganese	mg/kg	26,000	**18,200 J**	N/A	**29,400 J**	**29,000 J**	**17,400**	**13,200**	N/A	**14,000**
Mercury	mg/kg	350	**0.11**	N/A	**6.6**	**0.055 J**	**0.08 J**	**0.025 J**	N/A	**0.0079 J**
Nickel	mg/kg	22,000	**48.1 J**	N/A	**19.3 J**	**53.6 J**	**33.3**	**43.5**	N/A	**21.6**
Selenium	mg/kg	5,800	3.3 UJ	N/A	3.4 UJ	3.7 UJ	3.4 U	3.3 U	N/A	3.4 U
Silver	mg/kg	5,800	**0.96 J**	N/A	**1 J**	**0.45 J**	2.6 U	2.4 U	N/A	2.5 U
Thallium	mg/kg	12	**28.3**	**24**	**30.3**	**38.6**	8.6 U	8.2 U	N/A	8.4 U
Vanadium	mg/kg	5,800	**1,740**	N/A	**2,210**	**2,730**	**3,370**	**4,100**	N/A	**2,050**
Zinc	mg/kg	350,000	**348 J**	N/A	**313 J**	**221 J**	**275**	**1,040**	N/A	**353**
Other										
Cyanide	mg/kg	150	**1.5 J-**	N/A	**4 J-**	**2.6 J-**	**0.85**	0.14 B	N/A	**0.68**

Detections in bold

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Table 2 - Sub-Parcel B22-2
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B22-024-SB-4*	B22-025-SB-4*	B22-026-SB-1*	B22-026-SB-9*	B22-027-SB-1*	B22-027-SB-5*	B22-028-SB-1*	B22-029-SB-1*
			5/23/2016	5/23/2016	5/23/2016	5/23/2016	5/24/2016	5/24/2016	5/24/2016	5/24/2016
Metals										
Aluminum	mg/kg	1,100,000	**18,100**	**27,600**	**17,400**	**4,410**	**24,800**	**43,700**	**26,000**	**40,600**
Antimony	mg/kg	470	2.8 U	2.6 U	2.9 U	2.8 U	2.6 U	2.7 U	2.8 U	2.5 U
Arsenic	mg/kg	3	**15.2**	**3.8**	**16.3**	**11.7**	**2.8**	**2.2 J**	**3**	**2.4**
Barium	mg/kg	220,000	**296**	**271**	**581**	**102**	**214**	**320**	**363**	**296**
Beryllium	mg/kg	2,300	**1.5**	**4.2**	**1**	**0.38 J**	**4.3**	**7**	**2.1**	**6.4**
Cadmium	mg/kg	980	0.96 B	0.95 B	**4.8**	**3.5**	0.3 B	0.29 B	**3.1**	0.25 B
Chromium	mg/kg	120,000	**414**	**283**	**225**	**88.2**	**24**	**13.1**	**63.6**	**12.9**
Chromium VI	mg/kg	6.3	0.75 B	0.43 B	**29.5**	0.36 B	0.33 B	0.3 B	0.69 B	0.35 B
Cobalt	mg/kg	350	**14.6**	**9.4**	**25**	**11.1**	**1.1 J**	4.5 U	**4.6 J**	**0.43 J**
Copper	mg/kg	47,000	**229**	**37.9**	**366**	**315**	**11.8**	**2.6 J**	**149**	**1.6 J**
Iron	mg/kg	820,000	**146,000**	**53,200**	**122,000**	**57,400**	**39,900**	**4,290**	**22,400**	**2,370**
Lead	mg/kg	800	**186**	**85.2**	**6,870**	**522**	**4.2**	2.3 U	**816**	2.1 U
Manganese	mg/kg	26,000	**9,390**	**8,920**	**4,980**	**1,810**	**2,860**	**3,650**	**1,370**	**3,720**
Mercury	mg/kg	350	**0.1 J**	**0.06 J**	**0.079 J**	**0.012 J**	**0.0038 J**	0.1 U	0.11 U	0.1 U
Nickel	mg/kg	22,000	**39.8**	**15.2**	**92.8**	**38.3**	**10.9**	9 U	**26.2**	8.3 U
Selenium	mg/kg	5,800	3.7 U	3.5 U	3.8 U	3.7 U	3.5 U	**2.7 J**	**3.4 J**	**3.2 J**
Silver	mg/kg	5,800	2.8 U	2.6 U	**2.9 J**	**1.1 J**	2.6 U	2.7 U	2.8 U	2.5 U
Thallium	mg/kg	12	9.3 U	8.7 U	9.6 U	9.2 U	8.7 U	9 U	9.2 U	8.3 U
Vanadium	mg/kg	5,800	**1,850**	**819**	**262**	**112**	**16.6**	**13**	**57.3**	**17.7**
Zinc	mg/kg	350,000	**314**	**335**	**3,420**	**1,300**	4.4 B	4 B	**5,060**	3.3 B
Other										
Cyanide	mg/kg	150	0.33 B	**3.6**	**6.4**	0.55 B	0.87 B	0.15 B	**3**	0.75 B

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Table 2 - Sub-Parcel B22-2
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B22-029-SB-6*	B22-030-SB-1*	B22-030-SB-5*	B22-030-SB-10*	B22-031-SB-1*	B22-031-SB-4*	B22-031-SB-10*	B22-032-SB-1*
			5/24/2016	5/24/2016	5/24/2016	5/24/2016	5/19/2016	5/19/2016	5/19/2016	5/23/2016
Metals										
Aluminum	mg/kg	1,100,000	**34,900**	**17,100**	**36,800**	N/A	**11,900**	**17,200**	N/A	**10,000**
Antimony	mg/kg	470	2.4 U	2.5 U	2.4 U	N/A	3.2 U	2.8 U	N/A	2.3 U
Arsenic	mg/kg	3	**3.1**	**6.7**	**5.9**	2.2 U	**11.4**	**9.8**	**22.8**	**8.7**
Barium	mg/kg	220,000	**272**	**186**	**437**	N/A	**248**	**248**	N/A	**197**
Beryllium	mg/kg	2,300	**5.5**	**1.5**	**1.9**	N/A	**0.37 J**	**1.5**	N/A	0.77 U
Cadmium	mg/kg	980	0.35 B	0.93 B	1 B	N/A	**2.1**	**1.9**	N/A	**3.3**
Chromium	mg/kg	120,000	**31.5**	**219**	**288**	N/A	**1,040**	**542**	N/A	**1,180**
Chromium VI	mg/kg	6.3	0.35 B	0.53 B	0.49 B	N/A	0.51 B	0.5 B	N/A	0.47 B
Cobalt	mg/kg	350	**1.6 J**	**10.1**	**8.7**	N/A	**7.8**	**12.8**	N/A	**6.1**
Copper	mg/kg	47,000	**28.8**	**153**	**105**	N/A	**132**	**125**	N/A	**71.5**
Iron	mg/kg	820,000	**21,700**	**71,100**	**55,500**	N/A	**118,000**	**144,000**	N/A	**134,000**
Lead	mg/kg	800	**29.2**	**235**	**476**	N/A	**159**	**212**	N/A	**89**
Manganese	mg/kg	26,000	**3,400**	**4,370**	**5,500**	N/A	**51,900**	**22,800**	N/A	**46,600**
Mercury	mg/kg	350	0.11 U	**0.069 J**	**0.022 J**	N/A	**0.032 J**	**0.08 J**	N/A	**0.045 J**
Nickel	mg/kg	22,000	**6.9 J**	**29.2**	**34.5**	N/A	**68.2**	**51.5**	N/A	**24.1**
Selenium	mg/kg	5,800	**2.6 J**	**2.3 J**	3.2 U	N/A	4.3 U	3.7 U	N/A	3.1 U
Silver	mg/kg	5,800	2.4 U	2.5 U	2.4 U	N/A	3.2 U	2.8 U	N/A	2.3 U
Thallium	mg/kg	12	7.9 U	8.3 U	7.9 U	N/A	10.7 U	9.2 U	N/A	7.7 U
Vanadium	mg/kg	5,800	**48.1**	**816**	**951**	N/A	**3,090**	**1,250**	N/A	**3,820**
Zinc	mg/kg	350,000	**50.7**	**432**	**7,540**	N/A	**667**	**712**	N/A	**522**
Other										
Cyanide	mg/kg	150	0.41 B	0.78 B	**4.2**	N/A	**1.9**	0.54 B	N/A	**1.7**

Detections in bold

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Table 2 - Sub-Parcel B22-2
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B22-032-SB-4*	B22-032-SB-10*	B22-033-SB-1*	B22-034-SB-1*	B22-059-SB-1*	B22-059-SB-4*	B22-060-SB-1*	B22-060-SB-4*
			5/23/2016	5/23/2016	5/24/2016	5/25/2016	5/23/2016	5/23/2016	5/23/2016	5/23/2016
Metals										
Aluminum	mg/kg	1,100,000	**29,900**	N/A	**11,100**	**12,700**	**29,900**	**31,800**	**38,300**	**14,700**
Antimony	mg/kg	470	2.6 U	N/A	2.5 U	2.3 U	2.8 U	2.7 U	**1.7 J**	2.3 U
Arsenic	mg/kg	3	**3.8**	**5.3**	**4.8**	**3.7**	**13.1**	**18.6**	**2.1 J**	**8.7**
Barium	mg/kg	220,000	**605**	N/A	**63.3**	**69.2**	**722**	**434**	**468**	**281**
Beryllium	mg/kg	2,300	**2.3**	N/A	0.82 U	0.77 U	**2.4**	**2.3**	**5.3**	**0.46 J**
Cadmium	mg/kg	980	0.57 B	N/A	0.78 B	0.88 B	**5.6**	**7.1**	0.31 B	1.1 B
Chromium	mg/kg	120,000	**377**	N/A	**1,160**	**1,200**	**168**	**149**	**63.2**	**1,240**
Chromium VI	mg/kg	6.3	0.43 B	N/A	**12.5**	**10.8**	0.38 B	0.42 B	0.35 B	0.57 B
Cobalt	mg/kg	350	**4.2 J**	N/A	**2.3 J**	**1.1 J**	**33.9**	**34.7**	**1.8 J**	**5.9**
Copper	mg/kg	47,000	**30.7**	N/A	**55.3**	**41.3**	**359**	**301**	**14.3**	**55.1**
Iron	mg/kg	820,000	**47,300**	N/A	**243,000**	**191,000**	**104,000**	**84,700**	**22,400**	**88,700**
Lead	mg/kg	800	**22.5**	N/A	**7.2**	**36.1**	**1,230**	**976**	**57**	**245**
Manganese	mg/kg	26,000	**20,000**	N/A	**29,400**	**27,500**	**11,900**	**14,200**	**7,240**	**43,800**
Mercury	mg/kg	350	0.1 U	N/A	**0.048 J**	**0.07 J**	0.11 U	**0.0082 J**	0.11 U	**0.085 J**
Nickel	mg/kg	22,000	10.7 B	N/A	**49.2**	**28.5**	**169**	**130**	4.2 B	**17.7**
Selenium	mg/kg	5,800	**2.5 J**	N/A	3.3 U	3.1 U	3.7 U	3.7 U	3.5 U	3.1 U
Silver	mg/kg	5,800	2.6 U	N/A	**4.7**	**2.8**	**2.6 J**	**2.2 J**	2.6 U	2.3 U
Thallium	mg/kg	12	8.8 U	N/A	8.2 U	7.7 U	9.2 U	9.2 U	8.6 U	7.7 U
Vanadium	mg/kg	5,800	**1,430**	N/A	**621**	**633**	**160**	**118**	**214**	**2,400**
Zinc	mg/kg	350,000	**96.9**	N/A	**149**	**162**	**3,400**	**3,650**	**217**	**592**
Other										
Cyanide	mg/kg	150	0.58 B	N/A	0.32 B	0.15 B	**2.5**	**2.5**	**0.72**	**1.5**

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Table 2 - Sub-Parcel B22-2
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B22-062-SB-1*	B22-062-SB-4*	B22-067-SB-1*	B22-067-SB-7*	B22-067-SB-10*	B22-069-SB-1*	B22-069-SB-4*	B22-069-SB-10*
			5/18/2016	5/18/2016	5/20/2016	5/20/2016	5/20/2016	5/25/2016	5/25/2016	5/25/2016
Metals										
Aluminum	mg/kg	1,100,000	**26,700**	**22,000**	**23,500**	**14,800**	N/A	**28,900**	**14,600**	N/A
Antimony	mg/kg	470	3.3 U	3.4 U	2.9 U	3.1 U	N/A	2.7 U	2.7 U	N/A
Arsenic	mg/kg	3	**3.5**	**4.9**	2.4 U	**5.2**	**5**	2.3 U	**7.5**	**39.8**
Barium	mg/kg	220,000	**369**	**303**	**315**	**209**	N/A	**407**	**20.8**	N/A
Beryllium	mg/kg	2,300	**3.9**	**1.4**	**3.2**	**1**	N/A	**4**	**0.78 J**	N/A
Cadmium	mg/kg	980	**2.4**	**3**	0.4 B	0.51 B	N/A	0.35 B	1.4 U	N/A
Chromium	mg/kg	120,000	**375**	**1,090**	**66.1**	**107**	N/A	**25.2**	**24**	N/A
Chromium VI	mg/kg	6.3	0.43 B	0.5 B	0.41 B	0.37 B	N/A	0.39 B	0.9 B	N/A
Cobalt	mg/kg	350	**4.9 J**	**6**	**11.5**	**12**	N/A	**2 J**	**4.3 J**	N/A
Copper	mg/kg	47,000	**51.4**	**60.7**	23.9 B	**282**	N/A	**10.2**	**12.7**	N/A
Iron	mg/kg	820,000	**59,700**	**104,000**	**149,000**	**24,700**	N/A	**14,900**	**26,500**	N/A
Lead	mg/kg	800	**149**	**205**	**11.8**	**280**	N/A	2.3 U	**13.8**	N/A
Manganese	mg/kg	26,000	**14,500**	**29,400**	**7,410**	**1,180**	N/A	**3,910**	**92**	N/A
Mercury	mg/kg	350	0.11 U	0.11 U	0.1 U	**0.04 J**	N/A	0.11 U	**0.015 J**	N/A
Nickel	mg/kg	22,000	**17.3**	**25.2**	**9.7**	**18.1**	N/A	3.6 B	11.7 B	N/A
Selenium	mg/kg	5,800	4.4 U	4.6 U	**3.2 J**	**2.6 J**	N/A	**3.5 J**	3.7 U	N/A
Silver	mg/kg	5,800	3.3 U	3.4 U	**0.71 J**	3.1 U	N/A	2.7 U	2.7 U	N/A
Thallium	mg/kg	12	10.9 U	11.5 U	9.7 U	10.2 U	N/A	9 U	9.2 U	N/A
Vanadium	mg/kg	5,800	**717**	**1,730**	**207**	**170**	N/A	**47.2**	**33.4**	N/A
Zinc	mg/kg	350,000	**400**	**408**	14.4 B	**229**	N/A	**42.1**	**31.2**	N/A
Other										
Cyanide	mg/kg	150	**0.84**	0.64 B	0.25 B	0.15 B	N/A	0.095 B	0.13 B	N/A

Detections in bold
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Table 2 - Sub-Parcel B22-2
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B22-071-SB-1*	B22-071-SB-4*	B22-097-SB-1*	B22-097-SB-9*	B22-099-SB-1*	B22-099-SB-7*	B22-099-SB-9.5*	B22-100-SB-1*
			5/18/2016	5/18/2016	5/24/2016	5/24/2016	5/19/2016	5/19/2016	5/19/2016	5/18/2016
Metals										
Aluminum	mg/kg	1,100,000	**32,700**	**11,400**	**15,700**	**8,660**	**15,700**	**12,700**	N/A	**13,100**
Antimony	mg/kg	470	3.2 U	3.1 U	2.3 U	2.7 U	3.1 U	2.9 U	N/A	2.9 U
Arsenic	mg/kg	3	**4.8**	**6.6**	**8.1**	**20.9**	**16.7**	**5.5**	**16**	**9.1**
Barium	mg/kg	220,000	**251**	**223**	**255**	**720**	**294**	**92.5**	N/A	**152**
Beryllium	mg/kg	2,300	**4.9**	**0.55 J**	**1**	**0.63 J**	**1.5**	**0.42 J**	N/A	**0.92 J**
Cadmium	mg/kg	980	**2.5**	**8.9**	0.83 B	**4.9**	**2.9**	**2.4**	N/A	**2**
Chromium	mg/kg	120,000	**536**	**1,460**	**1,010**	**218**	**634**	**391**	N/A	**887**
Chromium VI	mg/kg	6.3	0.5 B	0.45 B	0.56 B	0.48 B	0.65 B	0.56 B	N/A	0.45 B
Cobalt	mg/kg	350	**3.4 J**	**10.2**	**29.3**	**17.2**	**14.9**	**6.2**	N/A	**24.4**
Copper	mg/kg	47,000	**61.5**	**114**	**963**	**769**	**367**	**47.4**	N/A	**158**
Iron	mg/kg	820,000	**78,400**	**126,000**	**86,400**	**97,200**	**99,800**	**45,500**	N/A	**246,000**
Lead	mg/kg	800	**128**	**465**	**448**	**1,960**	**658**	**153**	N/A	**147**
Manganese	mg/kg	26,000	**15,300**	**40,800**	**5,790**	**16,200**	**8,670**	**7,480**	N/A	**22,300**
Mercury	mg/kg	350	**0.28**	**0.043 J**	**0.035 J**	**0.014 J**	**0.19**	**0.035 J**	N/A	**0.058 J**
Nickel	mg/kg	22,000	**16.7**	**48.1**	**239**	**66.7**	**186**	**21.1**	N/A	**58.9**
Selenium	mg/kg	5,800	4.3 U	4.2 U	3 U	3.6 U	4.1 U	3.8 U	N/A	3.9 U
Silver	mg/kg	5,800	3.2 U	3.1 U	2.3 U	**3**	3.1 U	2.9 U	N/A	2.9 U
Thallium	mg/kg	12	10.7 U	10.5 U	7.6 U	8.9 U	10.4 U	9.5 U	N/A	9.8 U
Vanadium	mg/kg	5,800	**337**	**3,600**	**1,690**	**1,230**	**1,080**	**1,230**	N/A	**725**
Zinc	mg/kg	350,000	**539**	**995**	**1,490**	**2,400**	**1,930**	**505**	N/A	**582**
Other										
Cyanide	mg/kg	150	**2.7**	0.47 B	**0.95**	**1**	0.63 B	0.29 B	N/A	0.55 B

Detections in bold

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J: The positive result reported for this analyte is a quantitative estimate.

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 or field blank.

Table 2 - Sub-Parcel B22-2
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B22-100-SB-6*	B22-100-SB-10	B22-101-SB-1*	B22-101-SB-5*	B22-102-SB-1*	B22-102-SB-5*	B22-106-SB-1*	B22-106-SB-8.5*
			5/18/2016	5/18/2016	5/20/2016	5/20/2016	5/20/2016	5/20/2016	5/25/2016	5/25/2016
Metals										
Aluminum	mg/kg	1,100,000	**11,800**	N/A	**17,700**	**13,500**	**16,600**	**15,600**	**35,600**	**19,300**
Antimony	mg/kg	470	2.7 U	N/A	2.9 U	3.2 U	2.9 U	3.1 U	2.7 U	2.7 U
Arsenic	mg/kg	3	**2.8**	N/A	**7.5**	**3.6**	**7.7**	**4.7**	**3**	**4.3**
Barium	mg/kg	220,000	**119**	N/A	**277**	**54**	**310**	**59.5**	**357**	**82.6**
Beryllium	mg/kg	2,300	**0.2 J**	N/A	**1.7**	**0.43 J**	**1.6**	**0.98 J**	**2.7**	**0.61 J**
Cadmium	mg/kg	980	**5.5**	N/A	**9.6**	1.6 U	**79.5**	0.25 B	1.8 B	1.3 U
Chromium	mg/kg	120,000	**1,950**	N/A	**51.2**	**21.2**	**902**	**28.8**	**52.4**	**26.6**
Chromium VI	mg/kg	6.3	0.64 B	N/A	0.41 B	0.63 B	0.44 B	0.34 B	0.37 B	0.34 B
Cobalt	mg/kg	350	**4.9**	N/A	**17.5**	**3 J**	**21.2**	**17.3**	**3.5 J**	**4.5**
Copper	mg/kg	47,000	**72.5**	N/A	**205**	**20.4**	**177**	**373**	**25.2**	**15.3**
Iron	mg/kg	820,000	**118,000**	N/A	**124,000**	**12,500**	**142,000**	**29,500**	**13,100**	**15,300**
Lead	mg/kg	800	**174**	N/A	**726**	**12.4**	**590**	**47.4**	**27.9**	**13.7**
Manganese	mg/kg	26,000	**29,100**	**9,320**	**3,620**	**81**	**13,700**	**379**	**5,890**	**264**
Mercury	mg/kg	350	**0.1 J**	N/A	**0.6**	**0.0067 J**	**1.1**	**0.034 J**	0.11 U	**0.07 J**
Nickel	mg/kg	22,000	**29.5**	N/A	**53.5**	**6.1 J**	**84**	**23.6**	**7.1 J**	**10.9**
Selenium	mg/kg	5,800	3.6 U	N/A	3.5 B	4.3 U	3.9 U	4.2 U	3.6 U	3.6 U
Silver	mg/kg	5,800	2.7 U	N/A	**1.2 J**	3.2 U	**0.84 J**	3.1 U	2.7 U	2.7 U
Thallium	mg/kg	12	**10.5**	N/A	9.8 U	10.6 U	9.7 U	10.5 U	9 U	8.9 U
Vanadium	mg/kg	5,800	**4,270**	N/A	**138**	**44.9**	**1,280**	**53.4**	**141**	**39.8**
Zinc	mg/kg	350,000	**739**	N/A	**151**	**20.5**	**401**	**64**	**59.5**	**44.7**
Other										
Cyanide	mg/kg	150	**0.74**	N/A	0.31 B	0.088 B	**2.1**	0.16 B	0.63 B	0.35 B

Detections in bold

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Table 2 - Sub-Parcel B22-2
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B22-109-SB-1*	B22-109-SB-4.5*	B22-110-SB-1*	B22-110-SB-4*	B22-111-SB-1*	B22-111-SB-8*	B22-112-SB-1*	B22-112-SB-4*
			5/20/2016	5/20/2016	5/20/2016	5/20/2016	5/25/2016	5/25/2016	5/20/2016	5/20/2016
Metals										
Aluminum	mg/kg	1,100,000	**16,700**	**17,600**	**14,700**	**15,100**	**23,100**	**16,900**	**17,400**	**8,260**
Antimony	mg/kg	470	3.6 U	3.5 U	3.2 U	3.1 U	2.7 U	**1.9 J**	2.9 U	3 U
Arsenic	mg/kg	3	**4.5**	**3.2**	**5.2**	**33.5**	**5.6**	**3.2**	**2.8**	**4.2**
Barium	mg/kg	220,000	**146**	**81.8**	**209**	**301**	**301**	**41.9**	**235**	**78.7**
Beryllium	mg/kg	2,300	**0.88 J**	**0.6 J**	**1.3**	**0.6 J**	**1.9**	**0.6 J**	**1.5**	**0.48 J**
Cadmium	mg/kg	980	1.5 B	0.21 B	**14**	**10.4**	0.52 B	0.29 B	0.66 B	0.56 B
Chromium	mg/kg	120,000	**20.3**	**25.1**	**588**	**206**	**49.2**	**28.1**	**798**	**415**
Chromium VI	mg/kg	6.3	0.73 B	0.82 B	0.31 B	0.42 B	0.41 B	0.34 B	0.58 B	1.3 B
Cobalt	mg/kg	350	**5.1 J**	**7.3**	**6.6**	**44.1**	**6.5**	**7**	**5.8**	**9.8**
Copper	mg/kg	47,000	**86.1**	**24.2**	**347**	**401**	**22**	**12.6**	**87**	**111**
Iron	mg/kg	820,000	**15,600**	**22,800**	**46,200**	**206,000**	**22,400**	**15,000**	**163,000**	**82,900**
Lead	mg/kg	800	**29.4**	**22.6**	**1,270**	**997**	**58**	**26.4**	**166**	**78.3**
Manganese	mg/kg	26,000	**900**	**198**	**2,220**	**6,060**	**3,110**	**121**	**21,800**	**7,360**
Mercury	mg/kg	350	**1.8**	**0.1 J**	**10.2**	**0.08 J**	**0.035 J**	**0.016 J**	**0.79**	**0.07 J**
Nickel	mg/kg	22,000	**10.5 J**	**18.3**	**145**	**128**	**12.8**	**15**	**66.6**	**23.5**
Selenium	mg/kg	5,800	2.8 B	4.7 U	4.3 U	4.2 U	2.4 B	3.8 U	3.9 U	4 U
Silver	mg/kg	5,800	3.6 U	3.5 U	3.2 U	**4.6**	2.7 U	2.8 U	**1.6 J**	3 U
Thallium	mg/kg	12	11.9 U	11.8 U	10.8 U	10.4 U	8.9 U	9.4 U	9.8 U	**10.5**
Vanadium	mg/kg	5,800	**47.4**	**28.7**	**71.3**	**615**	**130**	**30.8**	**1,170**	**2,840**
Zinc	mg/kg	350,000	**761**	**98.6**	**711**	**9,230**	**103**	**56**	**258**	**208**
Other										
Cyanide	mg/kg	150	0.5 B	**1.1**	**2.2**	0.67 B	0.34 B	0.12 B	**0.77**	0.51 B

Detections in bold
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Table 2 - Sub-Parcel B22-2
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B22-112-SB-10*	B22-113-SB-1*	B22-113-SB-4*	B22-114-SB-1*	B22-114-SB-8*	B22-114-SB-10*	B22-115-SB-1	B22-115-SB-8.5
			5/20/2016	5/20/2016	5/20/2016	5/19/2016	5/19/2016	5/19/2016	5/19/2016	5/19/2016
Metals										
Aluminum	mg/kg	1,100,000	N/A	**13,200**	**17,400**	**17,700**	**15,900**	N/A	**13,300**	**15,900**
Antimony	mg/kg	470	N/A	3.4 U	3.1 U	2.8 U	3.6 U	N/A	3.4 UJ	3.1 UJ
Arsenic	mg/kg	3	**6**	2.9 U	**6.8**	**2.2 J**	**13.3**	**5.6**	**8.8**	**13.3**
Barium	mg/kg	220,000	N/A	**81.2**	**261**	**77.4**	**172**	N/A	**95.2 J+**	**107 J+**
Beryllium	mg/kg	2,300	N/A	1.1 U	**1**	0.94 U	**0.94 J**	N/A	1.1 U	**0.86 J**
Cadmium	mg/kg	980	N/A	0.52 B	0.45 B	0.47 B	1.1 B	N/A	**0.43 J**	**0.26 J**
Chromium	mg/kg	120,000	N/A	**933**	**227**	**1,000**	**178**	N/A	**1,210**	**30**
Chromium VI	mg/kg	6.3	N/A	**8.5**	0.58 B	0.39 B	0.51 B	N/A	1.1 B	0.19 B
Cobalt	mg/kg	350	N/A	**1.6 J**	**6.8**	**2.6 J**	**10.5**	N/A	**2.5 J**	**7.1**
Copper	mg/kg	47,000	N/A	**32.4**	**222**	**51.8**	**218**	N/A	**46.2**	**30.1**
Iron	mg/kg	820,000	N/A	**168,000**	**30,200**	**192,000**	**60,600**	N/A	**190,000 J**	**20,500 J**
Lead	mg/kg	800	N/A	**40.7**	**45.9**	**24.9**	**100**	N/A	**16.4**	**37.2**
Manganese	mg/kg	26,000	N/A	**24,700**	**6,340**	**22,900**	**4,280**	N/A	**31,600 J-**	**740 J-**
Mercury	mg/kg	350	N/A	**0.0052 J**	**0.029 J**	**0.019 J**	**0.088 J**	N/A	0.12 UJ	**0.036 J-**
Nickel	mg/kg	22,000	N/A	**16**	**27.8**	**24.7**	**51.5**	N/A	**21.5**	**25.5**
Selenium	mg/kg	5,800	N/A	4.6 U	4.1 U	3.8 U	**3.1 J**	N/A	4.5 U	4.2 U
Silver	mg/kg	5,800	N/A	**3.3 J**	3.1 U	**3.1**	3.6 U	N/A	**3.2 J**	3.1 U
Thallium	mg/kg	12	N/A	11.4 U	10.2 U	9.4 U	11.9 U	N/A	11.2 U	10.4 U
Vanadium	mg/kg	5,800	N/A	**613**	**1,420**	**523**	**148**	N/A	**723**	**45.6**
Zinc	mg/kg	350,000	N/A	**206**	**113**	**415**	**346**	N/A	**183**	**190**
Other										
Cyanide	mg/kg	150	N/A	0.26 B	0.22 B	0.29 B	0.23 B	N/A	0.25 B	0.49 B

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Table 2 - Sub-Parcel B22-2
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B22-116-SB-1*	B22-116-SB-8.5*	B22-117-SB-1*	B22-117-SB-4*	B22-117-SB-10	B22-118-SB-1*	B22-118-SB-9*	B22-118-SB-10*
			5/19/2016	5/19/2016	5/18/2016	5/18/2016	5/18/2016	5/18/2016	5/18/2016	5/18/2016
Metals										
Aluminum	mg/kg	1,100,000	**8,840**	**26,700**	**17,300**	**10,900**	N/A	**21,500**	**14,000**	N/A
Antimony	mg/kg	470	3.1 U	3.1 U	3 U	2.9 U	N/A	3.1 U	3.1 U	N/A
Arsenic	mg/kg	3	**6.3**	**3.4**	**9.9**	**10.4**	**8.4**	**8.4**	**4.3**	**4.3**
Barium	mg/kg	220,000	**66.2**	**542**	**377**	**176**	N/A	**270**	**191**	N/A
Beryllium	mg/kg	2,300	1 U	**2.5**	**1**	**0.89 J**	N/A	**2.6**	**0.49 J**	N/A
Cadmium	mg/kg	980	0.47 B	0.45 B	**3.8**	**3**	N/A	1.5 B	1.2 B	N/A
Chromium	mg/kg	120,000	**1,010**	**52.5**	**552**	**511**	N/A	**340**	**1,810**	N/A
Chromium VI	mg/kg	6.3	2.9 B	0.39 B	0.56 B	0.57 B	N/A	0.49 B	0.78 B	N/A
Cobalt	mg/kg	350	**2 J**	**4.2 J**	**11.2**	**17**	N/A	**8.2**	**5.1 J**	N/A
Copper	mg/kg	47,000	**37**	**103**	**167**	**157**	N/A	**131**	**112**	N/A
Iron	mg/kg	820,000	**170,000**	**21,100**	**94,700**	**177,000**	N/A	**101,000**	**137,000**	N/A
Lead	mg/kg	800	**31**	**2,850**	**372**	**338**	N/A	**292**	**63.6**	N/A
Manganese	mg/kg	26,000	**27,200**	**5,130**	**20,000**	**19,500**	N/A	**12,500**	**41,400**	**45,400**
Mercury	mg/kg	350	**0.0071 J**	0.12 U	**0.26**	**0.11**	N/A	**0.16**	**0.085 J**	N/A
Nickel	mg/kg	22,000	**20.6**	11.4 B	**85.3**	**46.7**	N/A	**27.7**	**17.8**	N/A
Selenium	mg/kg	5,800	4.1 U	4.2 U	4 U	3.9 U	N/A	4.2 U	4.1 U	N/A
Silver	mg/kg	5,800	**2.6 J**	3.1 U	3 U	2.9 U	N/A	3.1 U	3.1 U	N/A
Thallium	mg/kg	12	10.3 U	10.4 U	10.1 U	9.8 U	N/A	10.5 U	10.3 U	N/A
Vanadium	mg/kg	5,800	**577**	**95.8**	**1,240**	**1,070**	N/A	**728**	**1,870**	N/A
Zinc	mg/kg	350,000	**196**	**91.8**	**1,380**	**1,110**	N/A	**444**	**283**	N/A
Other										
Cyanide	mg/kg	150	0.27 B	0.3 B	**2**	**4.9**	N/A	0.43 B	0.69 B	N/A

Detections in bold

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Table 2 - Sub-Parcel B22-2
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B22-119-SB-1	B22-119-SB-9	B22-119-SB-10*	B22-120-SB-1*	B22-120-SB-8*	B22-121-SB-1*	B22-121-SB-9*	B22-121-SB-10*
			5/19/2016	5/19/2016	5/19/2016	5/19/2016	5/19/2016	5/19/2016	5/19/2016	5/19/2016
Metals										
Aluminum	mg/kg	1,100,000	**8,780**	**17,500**	N/A	**12,800**	**15,100**	**19,100**	**15,400**	N/A
Antimony	mg/kg	470	3.1 UJ	4 UJ	N/A	2.8 U	3.1 U	3.1 U	3.7 U	N/A
Arsenic	mg/kg	3	**2.5 J**	**4.1**	**6.2**	**23.9**	**3.2**	**11**	**10.2**	**20.5**
Barium	mg/kg	220,000	**81.1 J+**	**103 J+**	N/A	**244**	**90.5**	**229**	**175**	N/A
Beryllium	mg/kg	2,300	**1.1**	**1.1 J**	N/A	**0.88 J**	**0.81 J**	**1.1**	**0.98 J**	N/A
Cadmium	mg/kg	980	**1.1 J**	2 U	N/A	**2.9**	0.19 B	1.6 B	**0.61 J**	N/A
Chromium	mg/kg	120,000	**226**	**32**	N/A	**1,020**	**30.5**	**920**	**85.9**	N/A
Chromium VI	mg/kg	6.3	0.43 B	1.5 UJ	N/A	0.64 B	0.64 B	0.39 B	1.3 B	N/A
Cobalt	mg/kg	350	**3 J**	**13.4**	N/A	**20.2**	**5.9**	**11.1**	**10**	N/A
Copper	mg/kg	47,000	**33.5**	**16.2**	N/A	**528**	**105**	**128**	**106**	N/A
Iron	mg/kg	820,000	**49,700 J**	**25,600 J**	N/A	**193,000**	**21,200**	**77,500**	**32,500**	N/A
Lead	mg/kg	800	**76.5**	**12**	N/A	**246**	**59.4**	**163**	**101**	N/A
Manganese	mg/kg	26,000	**16,100 J-**	**204 J-**	N/A	**25,700**	**559**	**17,100**	**1,980**	N/A
Mercury	mg/kg	350	**0.012 J-**	**0.023 J-**	N/A	**0.18**	**0.09 J**	**0.086 J**	**0.11 J**	N/A
Nickel	mg/kg	22,000	**14.5**	**25.2**	N/A	**451**	**15.8**	**36.7**	**29.6**	N/A
Selenium	mg/kg	5,800	4.1 U	5.3 U	N/A	3.7 U	4.1 U	4.1 U	4.9 U	N/A
Silver	mg/kg	5,800	3.1 U	4 U	N/A	**1.8 J**	3.1 U	3.1 U	3.7 U	N/A
Thallium	mg/kg	12	10.2 U	10.6 U	N/A	9.3 U	10.2 U	10.3 U	9.8 U	N/A
Vanadium	mg/kg	5,800	**477**	**38.2**	N/A	**1,310**	**52.7**	**2,890**	**180**	N/A
Zinc	mg/kg	350,000	**300**	**69.6**	N/A	**1,010**	**169**	**449**	**294**	N/A
Other										
Cyanide	mg/kg	150	**7.2 J-**	0.57 B	N/A	0.42 B	0.35 B	0.8 B	0.38 B	N/A

Detections in bold

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

Table 2 - Sub-Parcel B22-2
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B22-125-SB-1*	B22-125-SB-4*	B22-125-SB-10	B22-126-SB-1*	B22-126-SB-6*	B22-126-SB-10*	B22-127-SB-1*	B22-127-SB-7*
			5/18/2016	5/18/2016	5/18/2016	5/18/2016	5/18/2016	5/18/2016	5/18/2016	5/18/2016
Metals										
Aluminum	mg/kg	1,100,000	**19,100**	**17,000**	N/A	**10,500**	**17,000**	N/A	**33,300**	**11,400**
Antimony	mg/kg	470	3 U	3.6 U	N/A	3.2 U	3.6 U	N/A	3.1 U	3.3 U
Arsenic	mg/kg	3	**6.2**	**6.5**	**6.2**	2.7 U	**6.8**	**7.1**	**3.7**	**2.9**
Barium	mg/kg	220,000	**478**	**218**	N/A	**274**	**62.8**	N/A	**548**	**55.5**
Beryllium	mg/kg	2,300	**1.6**	**2.3**	N/A	**1.6**	**0.89 J**	N/A	**4.9**	**0.83 J**
Cadmium	mg/kg	980	**1.2 J**	**1.1 J**	N/A	0.2 B	1.8 U	N/A	**1.4 J**	1.7 U
Chromium	mg/kg	120,000	**205**	**131**	N/A	**28**	**41.9**	N/A	**157**	**19.9**
Chromium VI	mg/kg	6.3	0.41 B	0.55 B	N/A	0.35 B	0.4 B	N/A	0.39 B	0.35 B
Cobalt	mg/kg	350	**5.5**	**9.9**	N/A	**1.1 J**	**6.1**	N/A	**6.3**	**9.8**
Copper	mg/kg	47,000	**105**	**1,740**	N/A	**14.5**	**16.8**	N/A	**64**	**13.8**
Iron	mg/kg	820,000	**70,200**	**56,700**	N/A	**25,300**	**16,200**	N/A	**59,600**	**18,800**
Lead	mg/kg	800	**139**	**311**	N/A	**39.1**	**48.8**	N/A	**116**	**11**
Manganese	mg/kg	26,000	**8,380**	**6,420**	N/A	**598**	**95.2**	N/A	**12,100**	**252**
Mercury	mg/kg	350	0.11 U	**0.16**	N/A	**0.036 J**	**0.016 J**	N/A	**0.0038 J**	**0.015 J**
Nickel	mg/kg	22,000	**16.5**	**31.1**	N/A	**5 J**	**13.2**	N/A	**31.4**	**18.6**
Selenium	mg/kg	5,800	4 U	4.8 U	N/A	3.7 B	4.8 U	N/A	4.2 U	4.4 U
Silver	mg/kg	5,800	3 U	3.6 U	N/A	3.2 U	3.6 U	N/A	3.1 U	3.3 U
Thallium	mg/kg	12	9.9 U	11.9 U	N/A	10.6 U	11.9 U	N/A	10.4 U	11.1 U
Vanadium	mg/kg	5,800	**1,240**	**512**	N/A	**32.8**	**53.7**	N/A	**526**	**24.7**
Zinc	mg/kg	350,000	**405**	**433**	N/A	**41.6**	**47.3**	N/A	**271**	**53.8**
Other										
Cyanide	mg/kg	150	0.21 B	**0.8**	N/A	**0.96**	0.18 B	N/A	0.23 B	0.1 B

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

Table 2 - Sub-Parcel B22-2
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B22-144-SB-1*	B22-144-SB-7*	B22-145-SB-1*	B22-145-SB-4*	B22-145-SB-10*	B22-148-SB-1*	B22-148-SB-6*	B22-148-SB-10*
			5/20/2016	5/20/2016	5/20/2016	5/20/2016	5/20/2016	5/19/2016	5/19/2016	5/19/2016
Metals										
Aluminum	mg/kg	1,100,000	**3,300**	**25,700**	**15,300**	**15,900**	N/A	**8,910**	**2,410**	N/A
Antimony	mg/kg	470	4.3 U	3.1 U	2.8 U	3 U	N/A	3 U	3.4 U	N/A
Arsenic	mg/kg	3	2.9 U	2.6 U	**5.9**	**4.2**	**3.3**	**8.2**	**40.8**	**7.5**
Barium	mg/kg	220,000	**584**	**86.8**	**269**	**291**	N/A	**152**	**584**	N/A
Beryllium	mg/kg	2,300	1.4 U	**1.1**	**1.6**	**0.97 J**	N/A	**0.54 J**	1.1 U	N/A
Cadmium	mg/kg	980	2.2 U	0.43 B	2.3 B	2.2 B	N/A	**5.1**	**2.5**	N/A
Chromium	mg/kg	120,000	**55.5**	**79.5**	**329**	**58.5**	N/A	**411**	**2,020**	N/A
Chromium VI	mg/kg	6.3	0.45 B	0.72 B	0.53 B	0.62 B	N/A	0.62 B	0.57 B	N/A
Cobalt	mg/kg	350	**1.2 J**	**4.7 J**	**8.2**	**10.2**	N/A	**11.5**	**41.1**	N/A
Copper	mg/kg	47,000	17.6 B	13 B	**136**	**87.4**	N/A	**134**	**365**	N/A
Iron	mg/kg	820,000	**12,500**	**10,400**	**99,800**	**29,000**	N/A	**90,600**	**158,000**	N/A
Lead	mg/kg	800	**114**	**97.3**	**900**	**578**	N/A	**1,030**	**282**	N/A
Manganese	mg/kg	26,000	**759**	**281**	**6,480**	**2,370**	N/A	**9,980**	**1,430**	N/A
Mercury	mg/kg	350	**0.062 J**	**0.2**	**0.9**	**0.044 J**	N/A	**0.065 J**	**0.27**	N/A
Nickel	mg/kg	22,000	**6.3 J**	**18**	**55.3**	**24.8**	N/A	**95.1**	**3,320**	N/A
Selenium	mg/kg	5,800	5.7 U	4.2 U	3.8 U	4 U	N/A	4 U	4.5 U	N/A
Silver	mg/kg	5,800	4.3 U	3.1 U	**1.6 J**	3 U	N/A	3 U	**2.2 J**	N/A
Thallium	mg/kg	12	11.5 U	10.5 U	9.4 U	10 U	N/A	9.9 U	11.3 U	N/A
Vanadium	mg/kg	5,800	**31.4**	**209**	**162**	**144**	N/A	**925**	**163**	N/A
Zinc	mg/kg	350,000	**88.3**	**158**	**671**	**1,170**	N/A	**1,130**	**1,990**	N/A
Other										
Cyanide	mg/kg	150	0.35 B	**1.1**	0.61 B	0.58 B	N/A	1 B	0.57 B	N/A

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Table 2 - Sub-Parcel B22-2
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B22-149-SB-1*	B22-149-SB-8*	B22-152-SB-1*	B22-152-SB-6*	B22-153-SB-1	B22-153-SB-4	B22-156-SB-1*	B22-156-SB-4.5*
			5/19/2016	5/19/2016	5/19/2016	5/19/2016	5/19/2016	5/19/2016	5/20/2016	5/20/2016
Metals										
Aluminum	mg/kg	1,100,000	**10,400**	**7,360**	**16,100**	**11,600**	**19,000**	**18,700**	**16,600**	**14,400**
Antimony	mg/kg	470	2.7 U	3 U	3.1 U	3 U	3.7 UJ	2.8 UJ	2.8 U	3.3 U
Arsenic	mg/kg	3	**16.3**	**24**	**11.1**	**13.7**	**5.1**	**9.8**	2.3 U	**5.8**
Barium	mg/kg	220,000	**190**	**123**	**167**	**183**	**83.4 J+**	**317 J+**	**76**	**51.3**
Beryllium	mg/kg	2,300	**0.59 J**	**0.27 J**	**0.79 J**	1 U	**0.97 J**	**0.4 J**	0.94 U	**1 J**
Cadmium	mg/kg	980	**5.2**	**4.6**	**2.8**	**5.4**	**1.6 J**	**10.3**	1.4 B	1.7 U
Chromium	mg/kg	120,000	**657**	**564**	**979**	**1,660**	**66**	**1,270**	**999**	**19.5**
Chromium VI	mg/kg	6.3	0.54 B	0.67 B	0.59 B	0.68 B	1.3 UJ	0.7 B	0.52 B	0.39 B
Cobalt	mg/kg	350	**15.2**	**24.4**	**22.7**	**6.3**	**9.3**	**8.6**	**1.3 J**	**15.5**
Copper	mg/kg	47,000	**320**	**341**	**126**	**106**	**45.9**	**96.1**	**32**	**11.9**
Iron	mg/kg	820,000	**106,000**	**201,000**	**137,000**	**101,000**	**28,600 J**	**124,000 J**	**184,000**	**20,500**
Lead	mg/kg	800	**396**	**449**	**120**	**276**	**866**	**232**	**62.2**	**18.8**
Manganese	mg/kg	26,000	**11,600**	**12,600**	**31,900**	**37,900**	**849 J-**	**27,400 J-**	**31,400**	**162**
Mercury	mg/kg	350	**0.25**	**0.11 J**	**0.043 J**	**0.3**	**0.099 J-**	**0.022 J-**	**0.21**	**0.043 J**
Nickel	mg/kg	22,000	**202**	**126**	**26.9**	**30.7**	**31.1**	**42.8**	**13.8**	**14.1**
Selenium	mg/kg	5,800	3.6 U	4 U	4.2 U	4 U	4.9 U	3.8 U	3.8 U	4.5 U
Silver	mg/kg	5,800	2.7 U	**1.6 J**	3.1 U	3 U	3.7 U	2.8 U	**5.9**	3.3 U
Thallium	mg/kg	12	9 U	10 U	10.4 U	10 U	9.8 U	9.5 U	9.4 U	11.1 U
Vanadium	mg/kg	5,800	**1,380**	**1,580**	**1,300**	**4,520**	**85.3**	**3,240**	**490**	**33.5**
Zinc	mg/kg	350,000	**1,410**	**927**	**834**	**1,170**	**758**	**658**	**149**	**47**
Other										
Cyanide	mg/kg	150	1.1 B	0.84 B	0.27 B	**1.3**	0.36 B	**0.81 J-**	0.63 B	0.13 B

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

Table 2 - Sub-Parcel B22-2
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B22-157-SB-1*	B22-158-SB-1*	B22-158-SB-8*	B22-158-SB-10*	B22-159-SB-1	B22-167-SB-1*
			5/20/2016	5/18/2016	5/18/2016	5/18/2016	5/19/2016	5/18/2016
Metals								
Aluminum	mg/kg	1,100,000	**40,400**	**17,500**	**9,890**	**9,030**	**16,000**	**29,400**
Antimony	mg/kg	470	2.9 U	3.1 U	2.7 U	2.5 U	3 UJ	2.9 U
Arsenic	mg/kg	3	**5.1**	**7.9**	**9.7**	**4.9**	**11.7**	**3.8**
Barium	mg/kg	220,000	**406**	**246**	**112**	**110**	**116 J+**	**568**
Beryllium	mg/kg	2,300	**3**	**2**	**0.55 J**	**0.22 J**	**0.19 J**	**3.2**
Cadmium	mg/kg	980	0.9 B	**4.1**	**6.7**	1.5 B	**0.68 J**	**0.28 J**
Chromium	mg/kg	120,000	**32.2**	**679**	**1,200**	**1,300**	**2,360**	**377**
Chromium VI	mg/kg	6.3	0.46 B	0.43 B	0.43 B	N/A	0.7 B	0.3 B
Cobalt	mg/kg	350	**5**	**11**	**10.7**	**7.1**	**8.5**	**3.6 J**
Copper	mg/kg	47,000	**48.9**	**92**	**107**	**67.8**	**56.2**	**20**
Iron	mg/kg	820,000	**11,600**	**78,900**	**123,000**	**147,000**	**176,000 J**	**49,400**
Lead	mg/kg	800	**97.1**	**250**	**520**	**86.5**	**23.3**	**4.1**
Manganese	mg/kg	26,000	**3,050**	**17,600**	**41,100**	**51,000**	**59,500 J-**	**25,600**
Mercury	mg/kg	350	**0.029 J**	**0.063 J**	**0.052 J**	N/A	**0.0055 J-**	0.11 U
Nickel	mg/kg	22,000	**11.7**	**45.6**	**30.5**	**19.8**	**12.5**	**9.1 J**
Selenium	mg/kg	5,800	2.6 B	4.2 U	3.6 U	3.3 U	4 U	3.8 B
Silver	mg/kg	5,800	2.9 U	3.1 U	2.7 U	2.5 U	3 U	2.9 U
Thallium	mg/kg	12	9.6 U	10.4 U	8.9 U	8.2 U	10.1 U	9.7 U
Vanadium	mg/kg	5,800	**81.6**	**1,730**	**1,690**	**2,730**	**2,380**	**317**
Zinc	mg/kg	350,000	**206**	**766**	**1,280**	**386**	**203**	**6.7**
Other								
Cyanide	mg/kg	150	0.69 B	0.64 B	0.49 B	N/A	0.39 B	0.24 B

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Table 2 - Sub-Parcel B22-2
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B22-167-SB-5*	B22-167-SB-10	B22-174-SB-1*	B22-174-SB-4*	B22-176-SB-1*	B22-176-SB-8*
			5/18/2016	5/18/2016	6/3/2016	6/3/2016	6/6/2016	6/6/2016
Metals								
Aluminum	mg/kg	1,100,000	**14,500**	N/A	**19,900**	**25,700**	**37,900**	**33,600**
Antimony	mg/kg	470	2.9 U	N/A	2.6 U	2.8 U	2.3 U	**5.7**
Arsenic	mg/kg	3	2.5 U	**12.3**	**6.5**	**9.8**	**4.4**	**7.2**
Barium	mg/kg	220,000	**48.3**	N/A	**227**	**386**	**418**	**918**
Beryllium	mg/kg	2,300	**0.82 J**	N/A	**2.8**	**2.7**	**5.9**	**4.6**
Cadmium	mg/kg	980	1.5 U	N/A	**1.3**	**1.8**	**2.1**	**12.8**
Chromium	mg/kg	120,000	**18**	N/A	**565**	**463**	**39.2**	**85.2**
Chromium VI	mg/kg	6.3	0.7 B	N/A	0.6 B	0.63 B	0.39 B	0.5 B
Cobalt	mg/kg	350	**2.5 J**	N/A	**4.9**	**19.9**	**3.3 J**	**5.8**
Copper	mg/kg	47,000	**7.8**	N/A	**112**	**174**	**72.8**	**905**
Iron	mg/kg	820,000	**6,980**	N/A	**102,000**	**178,000**	**20,500**	**46,800**
Lead	mg/kg	800	**5.6**	N/A	**300**	**195**	**126**	**687**
Manganese	mg/kg	26,000	**367**	**65.2**	**12,500**	**11,600**	**3,310**	**5,610**
Mercury	mg/kg	350	**0.0024 J**	N/A	**0.02 J**	**0.012 J**	0.1 U	**0.0038 J**
Nickel	mg/kg	22,000	**6.7 J**	N/A	**31.6**	**58.6**	**12.1**	**28.6**
Selenium	mg/kg	5,800	3.9 U	N/A	3.5 U	3.8 U	2.3 B	3.4 U
Silver	mg/kg	5,800	2.9 U	N/A	2.6 U	2.8 U	2.3 U	2.5 U
Thallium	mg/kg	12	9.8 U	N/A	8.8 U	9.4 U	7.8 U	8.4 U
Vanadium	mg/kg	5,800	**16.5**	N/A	**346**	**1,080**	**110**	**139**
Zinc	mg/kg	350,000	**15.9**	N/A	**1,030**	**668**	**121**	**908**
Other								
Cyanide	mg/kg	150	0.22 B	N/A	**0.082 J**	**1**	**0.27 J**	**0.34 J**

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Table 3 - Sub-Parcel B22-2
Summary of Organics Detected in Groundwater

Parameter	Units	PAL	FM-004-PZS 6/16/2016	FM-005-PZS* 5/25/2016	FM-006-PZS 6/9/2016	FM-007-PZS* 5/25/2016	FM-013-PZS 6/9/2016	TM09-PZM007* 6/28/2016	TM11-PZM007* 6/29/2016	TM13-PZM007 6/27/2016	TM15-PZM007* 6/24/2016	TM15-PZM011* 6/24/2016
Volatile Organic Compounds												
1,1-Dichloroethane	μg/L	2.7	1 U	**0.45 J**	1 U	1 U	**0.75 J**	**2.5**	**1**	1 U	1 U	1 U
1,1-Dichloroethene	μg/L	7	**0.72 J**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone (MEK)	μg/L	5,600	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	**3 J**
4-Methyl-2-pentanone (MIBK)	μg/L	1,200	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	**1.3 J**
Acetone	μg/L	14,000	10 U	10 U	10 U	10 U	10 U	**3.8 J**	10 U	10 U	**2.5 J**	**13.3**
Benzene	μg/L	5	1 U	1 U	1 U	1 U	1 U	0.71 B	**0.41 J**	**2.6**	**2**	**1.2**
Carbon disulfide	μg/L	810	1 U	1 U	1 U	1 U	1 U	**1.5**	0.99 B	**0.48 J**	**1.2**	**1.5**
Chloroform	μg/L	0.22	1 U	1 U	1 U	**0.67 J**	**0.87 J**	1 U	1 U	1 U	1 U	1 U
Cyclohexane	μg/L	13,000	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	**0.27 J**	**0.19 J**
Ethylbenzene	μg/L	700	1 U	1 U	1 U	1 U	**0.75 J**	1 U	1 U	1 U	**0.58 J**	1 U
Isopropylbenzene	μg/L	450	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	**0.18 J**	1 U
Tetrachloroethene	μg/L	5	1 U	1 U	1 U	1 U	1 U	**1.2**	1 U	1 U	1 U	1 U
Toluene	μg/L	1,000	1 U	1 U	1 U	1 U	**1.5**	**0.48 J**	**0.18 J**	**1**	**0.95 J**	**0.69 J**
Trichloroethene	μg/L	5	1 U	1 U	1 U	1 U	1 U	**2.1**	1 U	1 U	1 U	1 U
Xylenes	μg/L	10,000	3 U	3 U	3 U	3 U	**4.6**	**0.77 J**	3 U	3 U	**3.9**	**2.1 J**
Semi-Volatile Organic Compounds^												
1,1-Biphenyl	μg/L	0.83	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	**3.6**	**0.35 J**
1,4-Dioxane	μg/L	0.46	**10.3**	**0.94**	**0.091 J**	0.1 U	**0.85**	**1.9**	**2.1**	0.1 U	0.1 U	**0.17**
2,4-Dimethylphenol	μg/L	360	1 U	**0.53 J**	1 U	1 U	1 U	**261**	**0.55 J**	**1**	**2.4**	**5.1**
2-Chlorophenol	μg/L	91	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	**0.41 J**
2-Methylnaphthalene	μg/L	36	**0.064 J**	**0.36**	0.1 U	**0.026 J**	**0.21**	**0.71 J**	0.18 B	**1.5**	**18.1**	**1.9**
2-Methylphenol	μg/L	930	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	**1.7**	**5.1**
3&4-Methylphenol(m&p Cresol)	μg/L	930	2.1 U	2.1 U	2 U	2.1 U	2.1 U	**145**	2.1 U	**1.6 J**	**4.9**	**21.5**
Acenaphthene	μg/L	530	**0.1 J**	**0.15**	**0.21**	**0.026 J**	0.1 U	**0.68**	**0.52**	**0.38**	**17.1**	**2.4**
Acenaphthylene	μg/L	530	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.099 J**	**0.16**	**0.72**	**5.1**	**0.17**
Acetophenone	μg/L	1,900	1 U	1 U	1 U	1 U	**0.43 J**	1 U	1 U	1 U	1 U	**0.43 J**
Anthracene	μg/L	1,800	**0.56**	**0.055 J**	**0.013 J**	0.1 U	**0.023 J**	**0.27**	**0.12**	**0.47**	**1.3**	**0.38**
Benz[a]anthracene	μg/L	0.03	**0.11**	0.1 U	0.1 U	0.1 U	0.1 U	**0.024 J**	0.1 U	**0.073 J**	**0.078 J**	**0.04 J**
Benzo[a]pyrene	μg/L	0.2	**0.07 J**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.0081 J**	0.1 U
Benzo[b]fluoranthene	μg/L	0.25	**0.12 J**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.019 J**	**0.017 J**	0.1 U
Benzo[g,h,i]perylene	μg/L		**0.032 J**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo[k]fluoranthene	μg/L	2.5	**0.057 J**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.016 J**	0.1 U	0.1 U
bis(2-chloroethoxy)methane	μg/L	59	1 U	1 U	1 U	1 U	1 U	10.2 U	1 U	1 U	**0.55 J**	1 U
bis(2-Ethylhexyl)phthalate	μg/L	6	**0.33 J**	1 U	1 U	**0.24 J**	1 U	1 U	**0.29 J**	1 U	**0.23 J**	**0.34 J**
Caprolactam	μg/L	9,900	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	25.5 U	2.6 U	**1.4 J**	2.6 U	2.6 U
Carbazole	μg/L		1 U	**0.22 J**	1 U	1 U	1 U	**0.73 J**	1 U	**1.6**	**24.5**	**3.1**
Chrysene	μg/L	25	**0.086 J**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.037 J**	**0.045 J**	**0.03 J**
Di-n-butylphthalate	μg/L	900	1 U	1 U	1 U	1 U	**0.12 J**	1 U	1 U	1 U	1 U	1 U
Fluoranthene	μg/L	800	**0.2**	0.1 U	**0.064 J**	**0.039 J**	0.1 U	**0.23**	**0.071 J**	**1.1**	**1.6**	**0.36**
Fluorene	μg/L	290	**0.11**	**0.26**	**0.035 J**	**0.033 J**	0.1 U	**0.92**	**0.064 J**	**1.2**	**11.9**	**1.4**
Naphthalene	μg/L	0.12	**0.2**	**3**	0.03 B	0.059 B	**0.23**	**6.2**	**4.6**	**23.3**	**113**	**29.5**
Pentachlorophenol	μg/L	1	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	**1.1 J**	**1 J**	**0.97 J**
Phenanthrene	μg/L		**0.32**	**0.4**	**0.062 J**	**0.082 J**	**0.021 J**	**1.6**	**0.16**	**3.3**	**12.5**	**1.9**
Phenol	μg/L	5,800	1 U	**0.28 J**	1 U	**0.23 J**	**0.22 J**	**4.7**	1 U	1 U	**0.9 J**	**38**
Pyrene	μg/L	120	**0.15**	0.1 U	**0.048 J**	**0.028 J**	0.1 U	**0.14**	**0.053 J**	**0.67**	**1**	**0.22**
PCBs												
Dichlorobiphenyl	μg/L	0.044	N/A	N/A	N/A	N/A	N/A	0.005 U	0.00521 U	**0.145**	0.005 U	0.005 U
Trichlorobiphenyl	μg/L	0.044	N/A	N/A	N/A	N/A	N/A	0.005 U	0.00521 U	**0.542**	0.005 U	0.005 U
Tetrachlorobiphenyl	μg/L	0.0004	N/A	N/A	N/A	N/A	N/A	0.01 U	0.0104 U	**0.062**	0.01 U	0.01 U
PCBs (total)	μg/L	0.5	N/A	N/A	N/A	N/A	N/A	0.025 U	0.026 U	**0.748**	0.025 U	0.025 U
TPH												
Diesel Range Organics	μg/L	47	**3,380 J**	**4,480**	**410 J**	**131**	**1,020 J**	**2,580**	**658**	**264 J**	**1,870**	**4,180**
Gasoline Range Organics	μg/L	47	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	**86.6 J**	200 U

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
^ PAH compounds were analyzed via SIM

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.
B: The analyte was not detected substantially above the level of the associtaed method blank or field blank.

Table 4 - Sub-Parcel B22-2
Summary of Inorganics Detected in Groundwater

Parameter	Units	PAL	FM-004-PZS 6/16/2016	FM-005-PZS* 5/25/2016	FM-006-PZS 6/9/2016	FM-007-PZS* 5/25/2016	FM-013-PZS 6/9/2016	TM09-PZM007* 6/28/2016	TM11-PZM007* 6/29/2016	TM13-PZM007 6/27/2016	TM15-PZM007* 6/24/2016	TM15-PZM011* 6/24/2016
Total Metals												
Aluminum	µg/L	20,000	N/A	N/A	N/A	N/A	N/A	**551**	**101**	**150**	**538**	**549**
Arsenic	µg/L	10	N/A	N/A	N/A	N/A	N/A	**5.1**	5 U	5 U	**6.7**	**12.8**
Barium	µg/L	2,000	N/A	N/A	N/A	N/A	N/A	**71.8**	**22**	**43.8**	**46**	**44.2**
Chromium	µg/L	100	N/A	N/A	N/A	N/A	N/A	**2.2 J**	**2.3 J**	**1.1 J**	**1.1 J**	**1.5 J**
Iron	µg/L	14,000	N/A	N/A	N/A	N/A	N/A	**217**	**93.8**	**21.1 J**	**68.9 J**	**60 J**
Manganese	µg/L	430	N/A	N/A	N/A	N/A	N/A	**10.1**	**151**	**0.98 J**	5 U	**1.4 J**
Nickel	µg/L	390	N/A	N/A	N/A	N/A	N/A	**1.8 J**	**0.79 J**	10 U	**1.2 J**	**4.8 J**
Selenium	µg/L	50	N/A	N/A	N/A	N/A	N/A	8 U	8 U	8 U	**6.4 J**	**3.5 J**
Thallium	µg/L	2	N/A	N/A	N/A	N/A	N/A	10 U	10 U	10 U	**9.3 J**	10 U
Vanadium	µg/L	86	N/A	N/A	N/A	N/A	N/A	**217**	**1 J**	**135**	**806**	**76.3**
Dissolved Metals												
Aluminum, Dissolved	µg/L	20,000	50 U	**38.7 J**	50 U	**59.4**	50 U	**516**	**104**	**154**	**514**	**505**
Arsenic, Dissolved	µg/L	10	5 U	5 U	5 U	**3.7 J**	5 U	5 U	5 U	5 U	**5.1**	**6.5**
Barium, Dissolved	µg/L	2,000	**72**	**45.8**	**264**	**25.8**	**30.2**	**70.6**	**25.3**	**45**	**42.7**	**41.7**
Chromium, Dissolved	µg/L	100	5 U	**5.9**	**1.5 J**	**2.2 J**	**1.7 J**	**1.4 J**	**1.6 J**	**0.99 J**	**1.1 J**	**1.1 J**
Cobalt, Dissolved	µg/L	6	5 U	5 U	**0.77 J**	**0.67 J**	**32.2**	5 U	5 U	5 U	5 U	5 U
Copper, Dissolved	µg/L	1,300	5 U	5 U	**1.6 J**	**2.5 J**	5 U	5 U	5 U	5 U	5 U	5 U
Iron, Dissolved	µg/L	14,000	**3,030**	**20 J**	**12,600**	**31,200**	**243,000**	**45.7 J**	**82.4**	70 U	**40.4 J**	**20.1 J**
Lead, Dissolved	µg/L	15	5 U	5 U	5 U	5 U	5 U	5 U	**4.1 J**	5 U	5 U	5 U
Manganese, Dissolved	µg/L	430	**2,460**	**37.7**	**1,900**	**503**	**11,400**	**1.4 J**	**170**	5 U	5 U	5 U
Nickel, Dissolved	µg/L	390	7 B	**2 J**	**2.7 J**	**1.3 J**	**65.2**	**1.7 J**	1.8 B	10 U	**1.8 J**	**4.3 J**
Selenium, Dissolved	µg/L	50	8 U	3.3 B	8 U	10.9 B	8 U	8 U	8 U	8 U	8 U	**3.7 J**
Silver, Dissolved	µg/L	94	6 U	6 U	6 U	6 U	**2.6 J**	6 U	6 U	6 U	6 U	6 U
Thallium, Dissolved	µg/L	2	10 U	10 U	**4.7 J**	10 U	10 U	10 U	10 U	10 U	**10.6**	10 U
Vanadium, Dissolved	µg/L	86	**3 J**	**731**	**29.3**	**7.4**	5 U	**212**	**1.3 J**	**131**	**853**	**67.1**
Zinc, Dissolved	µg/L	6,000	**58.3**	10 U	3.6 B	**1.3 J**	8.5 B	0.88 B	**1.3 J**	1.7 B	10 U	0.92 B
Other												
Cyanide	µg/L	200	**8.1 J**	**33.5**	**4.9 J+**	**3.6 J**	10 U	**45.8**	**58.3**	**18**	**73.6**	**33.3**

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

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.
J+: The positive result reported for this analyte is a quantitative estimate but may be biased high.
B: This analyte was not detected substantially above the level of the associated method blank or field blank.

Table 5 - Sub-Parcel B22-2 PORI Lagoon Characterization
Summary of Organics Detected in Soil (Soil Borings)

Parameter	Units	PAL	B22-119-SB-1	B22-119-SB-9	B22-119-SB-10*	B22-119-SB-5*	B22-119-SB-15*	B22-119A-SB-5*	B22-119A-SB-9*	B22-119B-SB-5*	B22-119B-SB-9.5*	B22-119B-SB-15*	B22-119C-SB-5*
			5/19/2016	5/19/2016	5/19/2016	5/8/2018	5/8/2018	5/7/2018	5/7/2018	5/7/2018	5/7/2018	5/7/2018	5/7/2018
Volatile Organic Compounds													
2-Butanone (MEK)	mg/kg	190,000	0.011 U	**0.0061 J**	N/A	0.0097 U	0.0098 U	**0.013**	0.0096 U	0.012 U	0.012 U	0.0098 U	0.011 U
Acetone	mg/kg	670,000	0.011 U	**0.023 J**	N/A	0.0097 U	**0.02**	**0.33**	**0.072**	**0.039**	**0.049**	**0.23**	**0.038**
Benzene	mg/kg	5.1	0.0056 U	**3.9 J**	N/A	0.0049 U	**0.14**	0.0056 U	0.0048 U	0.0059 U	0.0062 U	0.0049 U	0.0056 U
Carbon disulfide	mg/kg	3,500	0.0056 U	0.007 U	N/A	0.0049 U	**0.0053**	0.0056 U	0.0048 U	0.0059 U	0.0062 U	0.0049 U	0.0056 U
Ethylbenzene	mg/kg	25	0.0056 U	**0.096 J**	N/A	0.0049 U	0.0049 U	0.0056 U	0.0048 U	0.0059 U	0.0062 U	0.0049 U	0.0056 U
Isopropylbenzene	mg/kg	9,900	0.0056 U	**0.018**	N/A	0.0049 U	0.0049 U	0.0056 U	0.0048 U	0.0059 U	0.0062 U	0.0049 U	0.0056 U
Methyl Acetate	mg/kg	1,200,000	0.056 U	0.07 U	N/A	0.049 U	0.049 U	**0.073**	**0.023 J**	**0.0025 J**	**0.23**	**0.079**	**0.012 J**
Methyl tert-butyl ether (MTBE)	mg/kg	210	0.0056 U	0.007 U	N/A	0.0049 U	0.0049 U	0.0056 U	0.0048 U	0.0059 U	0.0062 U	0.0049 U	0.0056 U
Styrene	mg/kg	35,000	0.0056 U	**0.032 J**	N/A	0.0049 U	0.0049 U	0.0056 U	0.0048 U	0.0059 U	0.0062 U	0.0049 U	0.0056 U
Toluene	mg/kg	47,000	0.0056 U	**1.4 J**	N/A	0.0049 U	**0.0062**	0.0056 U	0.0048 U	0.0059 U	0.0062 U	**0.0016 J**	0.0056 U
Xylenes	mg/kg	2,800	0.017 U	**0.75 J**	N/A	0.015 U	**0.0078 J**	0.017 U	0.014 U	0.018 U	0.019 U	0.015 U	0.017 U
Semi-Volatile Organic Comounds^													
1,1-Biphenyl	mg/kg	200	0.07 U	**0.18 J**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4-Dimethylphenol	mg/kg	16,000	0.07 U	**0.96**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-Methylnaphthalene	mg/kg	3,000	0.072 U	**1.7**	N/A	**0.067**	**0.79**	**0.15**	**0.013**	**0.36**	**0.013**	**2.7**	**0.086**
2-Methylphenol	mg/kg	41,000	0.07 U	**1.5**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	0.14 U	**1.4 J**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Acenaphthene	mg/kg	45,000	0.072 U	**0.38 J**	N/A	**0.012**	**0.89**	**0.024**	**0.0031 J**	**0.053**	**0.00095 J**	**2.1**	**0.018**
Acenaphthylene	mg/kg	45,000	**0.011 J**	**0.72 J**	N/A	**0.019**	**0.14**	**0.035**	**0.035**	**0.092**	**0.0039 J**	**0.31**	**0.054**
Anthracene	mg/kg	230,000	**0.025 J**	**0.42 J**	N/A	**0.07**	**1.3**	**0.2**	**0.034**	**0.78**	**0.011**	**3.1**	**0.13**
Benz[a]anthracene	mg/kg	21	**0.2**	**0.35 J**	N/A	**0.28**	**2.9**	**0.86**	**0.28**	**8.2**	**0.14**	**3.2**	**0.84**
Benzaldehyde	mg/kg	120,000	0.07 R	0.099 R	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzo[a]pyrene	mg/kg	2.1	**0.16**	**0.26 J**	**84.9**	**0.26**	**2.7**	**0.84**	**0.28**	**6.9**	**0.17**	**1.7**	**0.8**
Benzo[b]fluoranthene	mg/kg	21	**0.4**	**0.57 J**	N/A	**0.55**	**4.3**	**1.1**	**0.43**	**12.8**	**0.28**	**2.6**	**1.3**
Benzo[g,h,i]perylene	mg/kg		**0.058 J**	**0.082 J**	N/A	**0.087**	**0.54**	**0.43**	**0.14**	**1.2**	**0.098**	**0.63**	**0.28**
Benzo[k]fluoranthene	mg/kg	210	**0.33**	**0.47 J**	N/A	**0.43**	**3.3**	**0.41**	**0.12**	**3.1**	**0.095**	**2.1**	**0.34**
bis(2-Ethylhexyl)phthalate	mg/kg	160	0.028 B	0.099 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Carbazole	mg/kg		0.07 U	**1.8**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chrysene	mg/kg	2,100	**0.21**	**0.27 J**	N/A	**0.26**	**2.2**	**0.66**	**0.21**	**6.4**	**0.12**	**2.7**	**0.64**
Dibenz[a,h]anthracene	mg/kg	2.1	**0.018 J**	**0.03 J**	N/A	**0.039**	**0.24**	**0.2**	**0.06**	**0.94**	**0.04**	**0.21**	**0.15**
Diethylphthalate	mg/kg	660,000	0.07 U	0.099 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fluoranthene	mg/kg	30,000	**0.27**	**1.5 J**	N/A	**0.45**	**5.9**	**1.1**	**0.33**	**9.2**	**0.097**	**9.5**	**1.1**
Fluorene	mg/kg	30,000	0.072 U	**1.2**	N/A	**0.0091**	**1.3**	**0.031**	**0.0051 J**	**0.078**	**0.0017 J**	**4.2**	**0.017**
Indeno[1,2,3-c,d]pyrene	mg/kg	21	**0.049 J**	**0.086 J**	N/A	**0.091**	**0.59**	**0.46**	**0.15**	**3.2**	**0.1**	**0.68**	**0.34**
Naphthalene	mg/kg	8.6	0.072 U	**32.8**	**2,040**	**0.064**	**2.8**	**0.084**	**0.018**	**0.23**	**0.026**	**0.48**	**0.082**
Phenanthrene	mg/kg		**0.046 J**	**2.5**	N/A	**0.31**	**6.5**	**0.93**	**0.12**	**4.9**	**0.081**	**13.8**	**0.45**
Phenol	mg/kg	250,000	0.07 U	**1.1**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pyrene	mg/kg	23,000	**0.25**	**1 J**	N/A	**0.45**	**4.7**	**0.93**	**0.29**	**7.7**	**0.091**	**7.3**	**0.96**
TPH/Oil & Grease													
Diesel Range Organics	mg/kg	6,200	**20.5 J**	**124 J**	N/A	**71**	**287**	**46.9**	**32.1**	**498**	**22.2**	**4,090**	**75.5**
Gasoline Range Organics	mg/kg	6,200	13 U	**11.1 J**	N/A	10 U	11 U	10.6 U	10.2 U	18.3 U	9.8 U	10.8 U	12.2 U
Oil & Grease	mg/kg	6,200	N/A	N/A	N/A	**302**	**1,200**	**224**	**186**	**644**	**218**	**35,800**	**242**

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

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
B: This analyte was not detected substantially above the level of the associate method blank or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this analyte in the sample.
J: The positive result reported for this analyte is a quantitative estimate.

Table 5 - Sub-Parcel B22-2 PORI Lagoon Characterization
Summary of Organics Detected in Soil (Soil Borings)

Parameter	Units	PAL	B22-119C-SB-9.5*	B22-119D-SB-5*	B22-119D-SB-9*	B22-119E-SB-5*	B22-119E-SB-10*	B22-119E-SB-15*	B22-119F-SB-5*	B22-119F-SB-10*	B22-119F-SB-15*	B22-119G-SB-5*
			5/7/2018	5/7/2018	5/7/2018	5/7/2018	5/7/2018	5/7/2018	5/8/2018	5/8/2018	5/8/2018	5/8/2018
Volatile Organic Compounds												
2-Butanone (MEK)	mg/kg	190,000	0.01 U	0.012 U	0.0088 U	0.011 U	0.0094 U	0.0091 U	0.011 U	0.0092 U	0.0093 U	0.0086 U
Acetone	mg/kg	670,000	**0.06**	**0.15**	**0.067**	**0.11**	**0.051**	**0.051**	**0.059**	0.0092 U	**0.012**	**0.056**
Benzene	mg/kg	5.1	0.0052 U	0.006 U	0.0044 U	0.0053 U	**0.14**	**0.43**	0.0054 U	0.0046 U	0.0046 U	0.0043 U
Carbon disulfide	mg/kg	3,500	0.0052 U	0.006 U	0.0044 U	0.0053 U	**0.0063**	**0.0022 J**	0.0054 U	0.0046 U	0.0046 U	0.0043 U
Ethylbenzene	mg/kg	25	0.0052 U	0.006 U	0.0044 U	0.0053 U	**0.007**	**0.014**	0.0054 U	0.0046 U	0.0046 U	0.0043 U
Isopropylbenzene	mg/kg	9,900	0.0052 U	0.006 U	0.0044 U	0.0053 U	**0.0019 J**	**0.002 J**	0.0054 U	0.0046 U	0.0046 U	0.0043 U
Methyl Acetate	mg/kg	1,200,000	**0.12**	**0.019 J**	**0.038 J**	0.053 U	**0.021 J**	**0.21**	**0.0084 J**	0.046 U	0.046 U	**0.013 J**
Methyl tert-butyl ether (MTBE)	mg/kg	210	0.0052 U	0.006 U	0.0044 U	0.0053 U	0.0047 U	0.0045 U	0.0054 U	0.0046 U	0.0046 U	0.0043 U
Styrene	mg/kg	35,000	0.0052 U	0.006 U	0.0044 U	0.0053 U	**0.0013 J**	**0.002 J**	0.0054 U	0.0046 U	0.0046 U	0.0043 U
Toluene	mg/kg	47,000	0.0052 U	**0.002 J**	0.0044 U	0.0053 U	**0.041**	**0.13**	0.0054 U	0.0046 U	0.0046 U	0.0043 U
Xylenes	mg/kg	2,800	0.016 U	0.018 U	0.013 U	0.016 U	**0.067**	**0.12**	0.016 U	0.014 U	0.014 U	0.013 U
Semi-Volatile Organic Comounds^												
1,1-Biphenyl	mg/kg	200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4-Dimethylphenol	mg/kg	16,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-Methylnaphthalene	mg/kg	3,000	**0.036**	**0.028**	**0.031**	**0.034**	**5.3**	**13.7**	**0.066**	**0.8**	**0.0035 J**	**0.028**
2-Methylphenol	mg/kg	41,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Acenaphthene	mg/kg	45,000	**0.019**	**0.003 J**	**0.022**	**0.013**	**1.1**	**3.4**	**0.073**	**3.7**	**0.0014 J**	**0.31**
Acenaphthylene	mg/kg	45,000	**0.013**	**0.0082**	**0.022**	**0.053**	**2.6**	**5.7**	**0.054**	**0.55**	0.0086 U	**0.092**
Anthracene	mg/kg	230,000	**0.067**	**0.024**	**0.11**	**0.13**	**6.4**	**7.6**	**0.4**	**9.9**	**0.001 J**	**1.5**
Benz[a]anthracene	mg/kg	21	**0.2**	**0.091**	**0.41**	**0.45**	**9.7**	**8.7**	**1.3**	**13.4**	**0.0027 J**	**10.3**
Benzaldehyde	mg/kg	120,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzo[a]pyrene	mg/kg	2.1	**0.17**	**0.079**	**0.34**	**0.36**	**8.6**	**7.7**	**1.3**	**10.3**	**0.0011 J**	**6.9**
Benzo[b]fluoranthene	mg/kg	21	**0.35**	**0.19**	**0.68**	**0.85**	**11.5**	**10.7**	**2.3**	**18.3**	**0.0014 J**	**10**
Benzo[g,h,i]perylene	mg/kg		**0.056**	**0.034**	**0.11**	**0.097**	**1.6**	**1.2**	**0.48**	**2**	0.0086 U	**2.8**
Benzo[k]fluoranthene	mg/kg	210	**0.25**	**0.14**	**0.5**	**0.63**	**3.5**	**3.4**	**1.8**	**16**	0.0086 U	**4.2**
bis(2-Ethylhexyl)phthalate	mg/kg	160	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Carbazole	mg/kg		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chrysene	mg/kg	2,100	**0.16**	**0.09**	**0.3**	**0.35**	**6.2**	**5.2**	**0.99**	**7.9**	**0.0012 J**	**7.6**
Dibenz[a,h]anthracene	mg/kg	2.1	**0.028**	**0.015**	**0.054**	**0.057**	**1.1**	**0.69**	**0.2**	**0.89**	0.0086 U	**1.4**
Diethylphthalate	mg/kg	660,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fluoranthene	mg/kg	30,000	**0.35**	**0.18**	**0.67**	**0.74**	**24.9**	**25.7**	**3**	**23.4**	**0.0047 J**	**17**
Fluorene	mg/kg	30,000	**0.026**	**0.0032 J**	**0.028**	**0.021**	**8.5**	**15.5**	**0.064**	**5.3**	**0.0017 J**	**0.1**
Indeno[1,2,3-c,d]pyrene	mg/kg	21	**0.064**	**0.036**	**0.13**	**0.13**	**2.5**	**1.6**	**0.53**	**2.2**	0.0086 U	**3.4**
Naphthalene	mg/kg	8.6	**0.055**	**0.043**	**0.039**	**0.047**	**36.3**	**131**	**0.15**	**1.3**	**0.013**	**0.025**
Phenanthrene	mg/kg		**0.32**	**0.1**	**0.44**	**0.47**	**33.1**	**42.9**	**1.4**	**29.6**	**0.0052 J**	**8.9**
Phenol	mg/kg	250,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pyrene	mg/kg	23,000	**0.27**	**0.16**	**0.53**	**0.69**	**14**	**14.8**	**2.5**	**17.8**	**0.0036 J**	**12.9**
TPH/Oil & Grease												
Diesel Range Organics	mg/kg	6,200	**49.3**	**59.2**	**37.6**	**229**	**395**	**246**	**177**	**370**	**8.7**	**38.4**
Gasoline Range Organics	mg/kg	6,200	14.2 U	9.9 U	15.7 U	11.5 U	11.5 U	12 U	22.9 U	10.8 U	10.3 U	14 U
Oil & Grease	mg/kg	6,200	**253**	**130**	**230 J**	**847**	**1,790**	**1,710**	**1,150**	**2,840**	**207 J**	**316**

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

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
B: This analyte was not detected substantially above the level of the associate method blank or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this analyte in the sample.
J: The positive result reported for this analyte is a quantitative estimate.

Table 5 - Sub-Parcel B22-2 PORI Lagoon Characterization
Summary of Organics Detected in Soil (Soil Borings)

Parameter	Units	PAL	B22-119G-SB-10*	B22-119G-SB-15*	B22-119H-SB-5*	B22-119H-SB-11*	B22-119H-SB-14*	B22-119I-SB-5*	B22-119I-SB-10*	B22-119I-SB-15*	B22-119J-SB-5*	B22-119J-SB-10*
			5/8/2018	5/8/2018	5/8/2018	5/8/2018	5/8/2018	5/8/2018	5/8/2018	5/8/2018	5/9/2018	5/9/2018
Volatile Organic Compounds												
2-Butanone (MEK)	mg/kg	190,000	0.0097 U	0.009 U	0.01 U	0.013 U	0.0095 U	0.0094 U	0.0089 U	0.011 U	0.0096 U	0.01 U
Acetone	mg/kg	670,000	**0.19**	**0.031**	**0.018**	**0.047**	0.0095 U	**0.022**	**0.011**	**0.011**	**0.015**	**0.025**
Benzene	mg/kg	5.1	0.0049 U	0.0045 U	0.0052 U	**0.0063 J**	**0.004 J**	0.0047 U	0.0044 U	**0.0029 J**	0.0048 U	0.005 U
Carbon disulfide	mg/kg	3,500	**0.0044 J**	**0.0053**	0.0052 U	**0.0065 J**	**0.0056**	**0.008**	**0.0027 J**	**0.013**	0.0048 U	0.005 U
Ethylbenzene	mg/kg	25	0.0049 U	0.0045 U	0.0052 U	**0.0031 J**	0.0048 U	0.0047 U	0.0044 U	0.0053 U	0.0048 U	0.005 U
Isopropylbenzene	mg/kg	9,900	0.0049 U	0.0045 U	0.0052 U	0.0065 U	0.0048 U	0.0047 U	0.0044 U	0.0053 U	0.0048 U	0.005 U
Methyl Acetate	mg/kg	1,200,000	0.049 U	**0.0014 J**	**0.0016 J**	**0.021 J**	0.048 U	**0.0034 J**	0.044 U	0.053 U	0.048 U	0.05 U
Methyl tert-butyl ether (MTBE)	mg/kg	210	**0.0013 J**	0.0045 U	0.0052 U	0.0065 U	0.0048 U	0.0047 U	0.0044 U	0.0053 U	0.0048 U	0.005 U
Styrene	mg/kg	35,000	0.0049 U	0.0045 U	0.0052 U	0.0065 U	0.0048 U	0.0047 U	0.0044 U	0.0053 U	0.0048 U	0.005 U
Toluene	mg/kg	47,000	0.0049 U	0.0045 U	0.0052 U	0.0065 U	**0.0016 J**	**0.0015 J**	0.0044 U	**0.0023 J**	0.0048 U	0.005 U
Xylenes	mg/kg	2,800	0.015 U	0.014 U	0.016 U	0.019 U	**0.0067 J**	**0.0081 J**	0.013 U	**0.0086 J**	0.014 U	0.015 U
Semi-Volatile Organic Comounds^												
1,1-Biphenyl	mg/kg	200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4-Dimethylphenol	mg/kg	16,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-Methylnaphthalene	mg/kg	3,000	**0.12**	**0.02**	**0.096**	**12.3**	**0.28**	**5.3**	**0.0084 J**	**0.16**	**0.026**	**0.023**
2-Methylphenol	mg/kg	41,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Acenaphthene	mg/kg	45,000	**0.25**	**0.035**	**0.0098**	**63.1**	**0.5**	**7.3**	**0.013**	**0.17**	**0.0031 J**	**0.0019 J**
Acenaphthylene	mg/kg	45,000	**0.027**	**0.011**	**0.018**	**1.1 J**	**0.048 J**	**0.63**	**0.0017 J**	**0.031**	**0.0058 J**	**0.0047 J**
Anthracene	mg/kg	230,000	**0.21**	**0.048**	**0.087**	**232**	**1.5**	**6.7**	**0.016**	**0.3**	**0.023**	**0.019**
Benz[a]anthracene	mg/kg	21	**0.48**	**0.25**	**0.37**	**305**	**3.1**	**7.9**	**0.03**	**0.51**	**0.082**	**0.071**
Benzaldehyde	mg/kg	120,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzo[a]pyrene	mg/kg	2.1	**0.48**	**0.26**	**0.34**	**252**	**2.7**	**7**	**0.026**	**0.48**	**0.077**	**0.054**
Benzo[b]fluoranthene	mg/kg	21	**0.83**	**0.45**	**0.71**	**409**	**4.5**	**12.3**	**0.046**	**0.84**	**0.19**	**0.16**
Benzo[g,h,i]perylene	mg/kg		**0.15**	**0.083**	**0.081**	**54**	**0.74**	**1.6**	**0.0098**	**0.12**	**0.025**	**0.019**
Benzo[k]fluoranthene	mg/kg	210	**0.65**	**0.35**	**0.56**	**109**	**3.5**	**9.7**	**0.036**	**0.66**	**0.15**	**0.12**
bis(2-Ethylhexyl)phthalate	mg/kg	160	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Carbazole	mg/kg		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chrysene	mg/kg	2,100	**0.45**	**0.23**	**0.31**	**230**	**2.2**	**5.5**	**0.023**	**0.39**	**0.099**	**0.083**
Dibenz[a,h]anthracene	mg/kg	2.1	**0.065**	**0.033**	**0.043**	**26.1**	**0.3**	**0.63**	**0.0029 J**	**0.05**	**0.011**	**0.0076**
Diethylphthalate	mg/kg	660,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fluoranthene	mg/kg	30,000	**0.78**	**0.56**	**0.49**	**1,490**	**5.1**	**20.6**	**0.059**	**0.96**	**0.15**	**0.14**
Fluorene	mg/kg	30,000	**0.24**	**0.032**	**0.0072**	**140**	**0.78**	**9.6**	**0.01**	**0.37**	**0.0035 J**	**0.0019 J**
Indeno[1,2,3-c,d]pyrene	mg/kg	21	**0.16**	**0.084**	**0.094**	**61.4**	**0.77**	**1.7**	**0.0091**	**0.13**	**0.026**	**0.02**
Naphthalene	mg/kg	8.6	**0.43**	**0.033**	**0.076**	**47.1**	**1.1**	**6.2**	**0.058**	**0.82**	**0.027**	**0.026**
Phenanthrene	mg/kg		**1.2**	**0.31**	**0.33**	**1,890**	**5**	**34.8**	**0.054**	**1.6**	**0.1**	**0.088**
Phenol	mg/kg	250,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pyrene	mg/kg	23,000	**0.72**	**0.51**	**0.41**	**1,090**	**4**	**13.8**	**0.048**	**0.74**	**0.14**	**0.12**
TPH/Oil & Grease												
Diesel Range Organics	mg/kg	6,200	**275**	**5.3 J**	**64.5**	**3,120**	**276**	**247**	**25.2**	**95.7**	**44.1**	**120**
Gasoline Range Organics	mg/kg	6,200	11.4 U	9.2 U	12.7 U	14.4 U	11.4 U	10.8 U	9.9 U	11.8 U	10.5 U	12 U
Oil & Grease	mg/kg	6,200	**2,540**	**284**	**205**	**5,930**	**1,600**	**446**	**380**	**1,370**	**198**	**370**

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

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
B: This analyte was not detected substantially above the level of the associate method blank or field blank.
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J: The positive result reported for this analyte is a quantitative estimate.

Table 5 - Sub-Parcel B22-2 PORI Lagoon Characterization
Summary of Organics Detected in Soil (Soil Borings)

Parameter	Units	PAL	B22-119K-SB-5*	B22-119K-SB-9*	B22-119K-SB-15*	B22-120-SB-1*	B22-120-SB-8*	B22-121-SB-1*	B22-121-SB-9*	B22-121-SB-10*	B22-174-SB-1*	B22-174-SB-4*
			5/9/2018	5/9/2018	5/9/2018	5/19/2016	5/19/2016	5/19/2016	5/19/2016	5/19/2016	6/3/2016	6/3/2016
Volatile Organic Compounds												
2-Butanone (MEK)	mg/kg	190,000	0.011 U	0.0076 U	0.009 U	0.011 U	0.011 U	0.0097 U	**0.0056 J**	N/A	0.013 U	0.011 U
Acetone	mg/kg	670,000	**0.023**	0.0076 U	**0.016**	0.011 U	0.011 U	0.0097 U	**0.022**	N/A	**0.013 J**	**0.0063 J**
Benzene	mg/kg	5.1	0.0057 U	0.0038 U	0.0045 U	0.0053 U	0.0056 U	0.0049 U	0.0061 U	N/A	0.0065 U	0.0053 U
Carbon disulfide	mg/kg	3,500	0.0057 U	0.0038 U	**0.006**	0.0053 U	0.0056 U	0.0049 U	0.0061 U	N/A	0.0065 U	0.0053 U
Ethylbenzene	mg/kg	25	0.0057 U	0.0038 U	0.0045 U	0.0053 U	0.0056 U	0.0049 U	0.0061 U	N/A	0.0065 U	0.0053 U
Isopropylbenzene	mg/kg	9,900	0.0057 U	0.0038 U	0.0045 U	0.0053 U	0.0056 U	0.0049 U	0.0061 U	N/A	0.0065 U	0.0053 U
Methyl Acetate	mg/kg	1,200,000	0.057 U	0.038 U	0.045 U	0.053 U	0.056 U	0.049 U	0.061 U	N/A	0.065 U	0.053 U
Methyl tert-butyl ether (MTBE)	mg/kg	210	0.0057 U	0.0038 U	0.0045 U	0.0053 U	0.0056 U	0.0049 U	0.0061 U	N/A	0.0065 U	0.0053 U
Styrene	mg/kg	35,000	0.0057 U	0.0038 U	0.0045 U	0.0053 U	0.0056 U	0.0049 U	0.0061 U	N/A	0.0065 U	0.0053 U
Toluene	mg/kg	47,000	0.0057 U	0.0038 U	0.0045 U	0.0053 U	0.0056 U	0.0049 U	0.0061 U	N/A	0.0065 U	0.0053 U
Xylenes	mg/kg	2,800	0.017 U	0.011 U	0.014 U	0.016 U	0.017 U	0.015 U	0.018 U	N/A	0.019 U	0.016 U
Semi-Volatile Organic Comounds^												
1,1-Biphenyl	mg/kg	200	N/A	N/A	N/A	**0.055 J**	**0.023 J**	**0.017 J**	**0.025 J**	N/A	**0.16**	**0.019 J**
2,4-Dimethylphenol	mg/kg	16,000	N/A	N/A	N/A	0.07 U	0.08 U	0.07 U	0.081 U	N/A	0.076 U	0.082 U
2-Methylnaphthalene	mg/kg	3,000	**0.022**	**0.044**	**0.021**	**0.069 J**	0.081 U	**0.11**	**0.061 J**	N/A	**0.024 J**	0.081 U
2-Methylphenol	mg/kg	41,000	N/A	N/A	N/A	0.07 U	0.08 U	0.07 U	0.081 U	N/A	0.076 U	0.082 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	N/A	N/A	N/A	0.14 U	0.16 U	0.14 U	**0.057 J**	N/A	0.15 U	0.16 U
Acenaphthene	mg/kg	45,000	**0.005 J**	**0.0065 J**	**0.017**	**0.015 J**	**0.11**	**0.027**	**0.1**	N/A	0.077 U	**0.0082 J**
Acenaphthylene	mg/kg	45,000	**0.017**	**0.019**	**0.0049 J**	**0.58**	**0.026 J**	**0.052**	**0.054 J**	N/A	**0.02 J**	**0.031 J**
Anthracene	mg/kg	230,000	**0.058**	**0.049**	**0.031**	**0.21**	**0.68**	**0.13**	**0.21**	N/A	**0.051 J**	**0.058 J**
Benz[a]anthracene	mg/kg	21	**0.37**	**0.2**	**0.087**	**0.51**	**1.5**	**0.52**	**0.43**	N/A	**0.52**	**0.44**
Benzaldehyde	mg/kg	120,000	N/A	N/A	N/A	**0.017 J**	0.08 U	**0.021 J**	**0.023 J**	N/A	**0.017 J**	0.082 U
Benzo[a]pyrene	mg/kg	2.1	**0.35**	**0.18**	**0.091**	**0.57**	**1.3**	**0.47**	**0.39**	**0.9**	**0.57**	**0.52**
Benzo[b]fluoranthene	mg/kg	21	**0.71**	**0.37**	**0.17**	**1.3**	**2.8**	**1.1**	**0.86**	N/A	**1.2**	**1.1**
Benzo[g,h,i]perylene	mg/kg		**0.094**	**0.042**	**0.021**	**0.36**	**0.42**	**0.16**	**0.15**	N/A	**0.38**	**0.27**
Benzo[k]fluoranthene	mg/kg	210	**0.55**	**0.29**	**0.13**	**1.1**	**2.3**	**0.92**	**0.71**	N/A	**0.93**	**0.96**
bis(2-Ethylhexyl)phthalate	mg/kg	160	N/A	N/A	N/A	**0.038 J**	0.08 U	**0.018 J**	0.081 U	N/A	**0.062 J**	0.082 U
Carbazole	mg/kg		N/A	N/A	N/A	**0.032 J**	**0.26**	**0.04 J**	**0.11**	N/A	0.076 U	0.082 U
Chrysene	mg/kg	2,100	**0.32**	**0.14**	**0.097**	**0.47**	**1.2**	**0.48**	**0.38**	N/A	**0.44**	**0.44**
Dibenz[a,h]anthracene	mg/kg	2.1	**0.043**	**0.019**	**0.0069 J**	**0.091**	**0.16**	**0.073**	**0.048 J**	N/A	**0.12**	**0.089**
Diethylphthalate	mg/kg	660,000	N/A	N/A	N/A	**0.17**	0.08 U	0.07 U	0.081 U	N/A	0.076 U	0.082 U
Fluoranthene	mg/kg	30,000	**0.57**	**0.25**	**0.18**	**0.8**	**3.2**	**1**	**1.3**	N/A	**0.52**	**0.38**
Fluorene	mg/kg	30,000	**0.0036 J**	**0.0082**	**0.025**	**0.038 J**	**0.15**	**0.036**	**0.12**	N/A	0.077 U	**0.01 J**
Indeno[1,2,3-c,d]pyrene	mg/kg	21	**0.11**	**0.046**	**0.019**	**0.28**	**0.42**	**0.17**	**0.14**	N/A	**0.33**	**0.25**
Naphthalene	mg/kg	8.6	**0.034**	**0.06**	**0.038**	**0.2**	**0.031 J**	**0.092**	**0.11**	N/A	**0.022 J**	**0.033 J**
Phenanthrene	mg/kg		**0.23**	**0.18**	**0.15**	**0.44**	**1.9**	**0.62**	**0.8**	N/A	**0.14**	**0.16**
Phenol	mg/kg	250,000	N/A	N/A	N/A	**0.019 J**	0.08 U	0.07 U	0.081 U	N/A	0.076 U	0.082 U
Pyrene	mg/kg	23,000	**0.48**	**0.24**	**0.16**	**0.66**	**2.7**	**0.85**	**0.94**	N/A	**0.5**	**0.34**
TPH/Oil & Grease												
Diesel Range Organics	mg/kg	6,200	**78.6**	**60.4**	**113**	**151**	**124**	**105**	**557**	N/A	**149**	**257**
Gasoline Range Organics	mg/kg	6,200	11.6 U	10.1 U	9.4 U	10.8 U	11.1 U	10.7 U	**7.8 J**	N/A	11.2 U	11.2 U
Oil & Grease	mg/kg	6,200	**308**	**279**	**1,430**	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
B: This analyte was not detected substantially above the level of the associate method blank or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this analyte in the sample.
J: The positive result reported for this analyte is a quantitative estimate.

Table 6 - Sub-Parcel B22-2 PORI Lagoon Characterization
Summary of Organics Detected in Soil (Test Pits)

Parameter	Units	PAL	B22 Test Pit 1-12*	B22 Test Pit 2-12*	B22-TP-1-1*	B22-TP-1-3*	B22-TP-1-5*	B22-TP-2-1*	B22-TP-2-3*	B22-TP-2-5*	B22-TP-3-1*
			6/5/2018	6/5/2018	6/17/2020	6/17/2020	6/17/2020	6/17/2020	6/17/2020	6/17/2020	6/17/2020
Volatile Organic Compounds											
1,2,4-Trichlorobenzene	mg/kg	110	0.0077 U	0.0066 U	0.31 U	**0.077 J**	0.37 U	0.33 U	0.32 U	0.46 U	0.0098 U
1,2-Dichlorobenzene	mg/kg	9,300	0.0077 U	0.0066 U	0.31 U	**0.15 J**	0.37 U	**0.15 J**	**0.086 J**	0.46 U	0.0098 U
1,4-Dichlorobenzene	mg/kg	11	0.0077 U	**0.031**	**0.26 J**	**0.71**	**0.17 J**	**1.4**	**0.93**	**0.51**	**0.0093 J**
2-Butanone (MEK)	mg/kg	190,000	0.015 U	**0.02**	0.63 U	**0.18 J**	0.75 U	**0.32 J**	0.63 U	0.92 U	0.02 U
Acetone	mg/kg	670,000	**0.06**	**0.08**	0.63 U	**0.18 J**	**0.27 J**	**0.32 J**	**0.22 J**	**0.33 J**	0.02 U
Carbon disulfide	mg/kg	3,500	0.0077 U	**0.024**	**0.18 J**	**0.37**	**0.17 J**	**0.24 J**	**0.32**	**0.14 J**	0.0098 U
Chloromethane	mg/kg	460	0.0077 U	0.0066 U	0.31 U	0.24 U	0.37 U	0.33 U	0.32 U	0.46 U	**0.0091 J**
Ethylbenzene	mg/kg	25	0.0077 U	0.0066 U	0.31 U	0.24 U	0.37 U	0.33 U	0.32 U	0.46 U	0.0098 U
Isopropylbenzene	mg/kg	9,900	0.0077 U	0.0066 U	0.31 U	0.24 U	0.37 U	0.33 U	0.32 U	0.46 U	0.0098 U
Methyl Acetate	mg/kg	1,200,000	0.077 U	0.066 U	**1.3 J**	**0.42 J**	**0.16 J**	**0.8 J**	**0.26 J**	**0.33 J**	0.098 U
Toluene	mg/kg	47,000	0.0077 U	0.0066 U	0.31 U	0.24 U	0.37 U	0.33 U	0.32 U	0.46 U	0.0098 U
Xylenes	mg/kg	2,800	0.023 U	0.02 U	0.94 U	0.72 U	1.1 U	1 U	0.95 U	1.4 U	0.029 U
Semi-Volatile Organic Compounds^											
2-Methylnaphthalene	mg/kg	3,000	**0.13 J**	**0.24 J**	**0.046 J**	**0.25 J**	**0.039 J**	0.49 U	**0.075**	1.8 U	2.4 U
Acenaphthene	mg/kg	45,000	**0.068 J**	**0.82**	**0.14**	**0.54 J**	**0.22**	**0.59**	**0.35**	**0.69 J**	**2.4**
Acenaphthylene	mg/kg	45,000	**0.13 J**	**0.25 J**	**0.14**	**0.32 J**	**0.061 J**	**0.13 J**	**0.15**	1.8 U	**0.3 J**
Anthracene	mg/kg	230,000	**0.15 J**	**0.48**	**0.18**	**0.39 J**	**0.13**	**0.36 J**	**0.49**	**0.84 J**	**2.9**
Benz[a]anthracene	mg/kg	21	**0.68**	**0.84**	**0.63**	**0.63 J**	**0.37**	**0.49**	**1**	**1.5 J**	**4.2**
Benzo[a]pyrene	mg/kg	2.1	**0.62**	**0.71**	**0.64**	2.2	**0.35**	2.2	**1**	**1.2 J**	3.2
Benzo[b]fluoranthene	mg/kg	21	**0.92**	**1.3**	**0.9**	**2.8**	**0.66**	**2.5**	**0.8**	**2**	**4.7**
Benzo[g,h,i]perylene	mg/kg		**0.32 J**	**0.5**	**0.5**	**0.66 J**	**0.32**	**0.34 J**	**0.58**	**0.64 J**	**2.2 J**
Benzo[k]fluoranthene	mg/kg	210	**0.35 J**	**1.2**	**0.16**	**0.18 J**	**0.17**	**0.14 J**	**0.84**	**0.4 J**	**1.3 J**
Chrysene	mg/kg	2,100	**0.88**	**1.2**	**1.1**	**1.3**	**0.82**	**1.2**	**1.9**	**5.8**	**8.1**
Dibenz[a,h]anthracene	mg/kg	2.1	0.45 U	0.43 U	**0.13**	0.69 U	**0.097 J**	0.49 U	**0.16**	1.8 U	2.4 U
Fluoranthene	mg/kg	30,000	**1.4**	**3.6**	**1.6**	**1.8**	**1.1**	**1.5**	**4.2**	**3.7**	**11**
Fluorene	mg/kg	30,000	**0.14 J**	**0.35 J**	**0.047 J**	**0.28 J**	**0.057 J**	**0.53**	**0.52**	**0.93 J**	**3.6**
Indeno[1,2,3-c,d]pyrene	mg/kg	21	**0.27 J**	**0.28 J**	**0.44**	**0.44 J**	**0.3**	**0.21 J**	**0.62**	**0.6 J**	**1.8 J**
Naphthalene	mg/kg	8.6	**0.31 J**	**0.26 J**	**0.11**	**0.18 J**	**0.069 J**	0.49 U	**0.12**	1.8 U	2.4 U
Phenanthrene	mg/kg		**0.55**	**0.83**	**0.27**	**0.52 J**	**0.22**	**0.2 J**	**0.51**	**3**	**12**
Pyrene	mg/kg	23,000	**1.3**	**4.1**	**1.4**	**2.2**	**1.4**	**1.6**	**3.1**	**3.6**	**11**
TPH/Oil & Grease											
Diesel Range Organics	mg/kg	6,200	**14,800**	**23,700**	**6,380**	**27,600**	**4,940**	**29,600**	**18,400**	**8,300**	**18,800**
Gasoline Range Organics	mg/kg	6,200	14.8 U	14.7 U	13.1 U	10.2 U	15.7 U	15.1 U	**8.9 J**	19.9 U	18.4 U
Oil & Grease	mg/kg	6,200	**32,100**	**44,100**	**41,700**	**77,900**	**40,500**	**116,000**	**103,000**	**38,600**	**113,000**

Detections in bold
Values in red indicate an exceedance of the Projet Action Limit (PAL)
* indicates non-validated data
^ PAH compounds were analyzed via SIM

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.

Table 6 - Sub-Parcel B22-2 PORI Lagoon Characterization
Summary of Organics Detected in Soil (Test Pits)

Parameter	Units	PAL	B22-TP-3-3*	B22-TP-3-5*	B22-TP-4-1*	B22-TP-4-3*	B22-TP-5-1*	B22-TP-5-3*	B22-TP-5-5*	B22-TP-6-1*	B22-TP-6-3*	B22-TP-6-5*
			6/17/2020	6/17/2020	6/17/2020	6/17/2020	6/17/2020	6/17/2020	6/17/2020	6/17/2020	6/17/2020	6/17/2020
Volatile Organic Compounds												
1,2,4-Trichlorobenzene	mg/kg	110	0.42 U	0.46 U	0.41 U	**0.089 J**	0.35 U	0.41 U	0.51 U	0.45 U	0.77 U	0.0048 U
1,2-Dichlorobenzene	mg/kg	9,300	0.42 U	0.46 U	0.41 U	0.33 U	0.35 U	0.41 U	0.51 U	0.45 U	0.77 U	0.0048 U
1,4-Dichlorobenzene	mg/kg	11	0.42 U	**0.16 J**	0.41 U	**0.13 J**	0.35 U	0.41 U	0.51 U	0.45 U	0.77 U	0.0048 U
2-Butanone (MEK)	mg/kg	190,000	0.85 U	0.92 U	0.83 U	0.67 U	**0.095 J**	0.82 U	**0.42 J**	0.9 U	1.5 U	**0.0021 J**
Acetone	mg/kg	670,000	0.85 U	0.92 U	**0.52 J**	0.67 U	**0.34 J**	**0.38 J**	**0.6 J**	**0.43 J**	**0.7 J**	0.0096 U
Carbon disulfide	mg/kg	3,500	**1**	0.46 U	0.41 U	**0.14 J**	0.35 U	0.41 U	**0.31 J**	0.45 U	0.77 U	**0.002 J**
Chloromethane	mg/kg	460	0.42 U	0.46 U	0.41 U	0.33 U	0.35 U	0.41 U	0.51 U	0.45 U	0.77 U	0.0048 U
Ethylbenzene	mg/kg	25	0.42 U	0.46 U	0.41 U	0.33 U	0.35 U	0.41 U	0.51 U	0.45 U	0.77 U	**0.0013 J**
Isopropylbenzene	mg/kg	9,900	0.42 U	0.46 U	0.41 U	**0.091 J**	0.35 U	0.41 U	**0.34 J**	0.45 U	0.77 U	**0.0053**
Methyl Acetate	mg/kg	1,200,000	**0.24 J**	**0.11 J**	**3.4 J**	**0.71 J**	**2.2 J**	**2.3 J**	**0.88 J**	**0.97 J**	**1.1 J**	0.048 U
Toluene	mg/kg	47,000	0.42 U	0.46 U	0.41 U	0.33 U	**0.073 J**	0.41 U	0.51 U	0.45 U	0.77 U	0.0048 U
Xylenes	mg/kg	2,800	1.3 U	1.4 U	1.2 U	1 U	1.1 U	1.2 U	1.5 U	1.3 U	2.3 U	**0.0047 J**
Semi-Volatile Organic Compounds^												
2-Methylnaphthalene	mg/kg	3,000	**0.13**	**0.038 J**	**1.7**	**6.4**	**0.73**	**0.86**	**1.8**	**0.16**	**0.58**	**0.44**
Acenaphthene	mg/kg	45,000	**0.41**	**0.24**	**5.5**	**9.9**	**0.38 J**	**0.14**	**5.8**	**0.18**	**3.4**	**6.2**
Acenaphthylene	mg/kg	45,000	**0.051**	**0.05 J**	**0.69**	**4.8**	0.56 U	**0.1**	**6.2**	**0.062 J**	**0.14 J**	**0.32**
Anthracene	mg/kg	230,000	**0.81**	**0.2**	**2.8**	**9.3**	**0.22 J**	**0.1**	**3.8**	**0.068**	**0.43**	**2.9**
Benz[a]anthracene	mg/kg	21	**1.6**	**0.36**	**2.2**	**10**	**0.32 J**	**0.22**	**4.5**	**0.15**	**0.57**	**1.5**
Benzo[a]pyrene	mg/kg	2.1	**1.3**	**0.31**	**2**	11	**0.38 J**	**0.22**	4.9	**0.19**	**0.53**	**1**
Benzo[b]fluoranthene	mg/kg	21	**1.6**	**0.42**	**2**	**11**	**0.4 J**	**0.24**	**5**	**0.17**	**0.7**	**0.94**
Benzo[g,h,i]perylene	mg/kg		**0.57**	**0.17**	**1.1**	**5.7**	**0.28 J**	**0.16**	**3.4**	**0.096**	**0.33 J**	**0.37**
Benzo[k]fluoranthene	mg/kg	210	**0.49**	**0.087 J**	**1.1**	**4.1**	**0.1 J**	**0.063**	**2**	**0.037 J**	**0.16 J**	**0.36**
Chrysene	mg/kg	2,100	**1.6**	**1**	**1.8**	**9.3**	**0.72**	**0.26**	**4.1**	**0.36**	**0.94**	**1.2**
Dibenz[a,h]anthracene	mg/kg	2.1	**0.22**	0.11 U	**0.11**	**1.5**	0.56 U	**0.04 J**	**0.87 J**	0.064 U	**0.11 J**	**0.11 J**
Fluoranthene	mg/kg	30,000	**3.6**	**0.8**	**5.1**	**25**	**0.6**	**0.36**	**9.6**	**0.18**	**1.2**	**5.2**
Fluorene	mg/kg	30,000	**0.38**	**0.14**	**3.6**	**10**	**0.43 J**	**0.18**	**5.6**	**0.08**	**0.26 J**	**3.7**
Indeno[1,2,3-c,d]pyrene	mg/kg	21	**0.71**	**0.15**	**1**	**6.1**	**0.19 J**	**0.14**	**2.4**	**0.07**	**0.24 J**	**0.39**
Naphthalene	mg/kg	8.6	**0.16**	**0.028 J**	**0.62**	**3.2**	**0.4 J**	**0.37**	**1.3 J**	**0.26**	**0.53**	**1**
Phenanthrene	mg/kg		**3.6**	**0.5**	**10**	**31**	**1.3**	**0.59**	**18**	**0.17**	**0.73**	**11**
Pyrene	mg/kg	23,000	**2.8**	**0.89**	**4.1**	**19**	**1.3**	**0.42**	**8.2**	**0.57**	**2**	**4.1**
TPH/Oil & Grease												
Diesel Range Organics	mg/kg	6,200	**18,800**	**5,500**	**17,200**	**46,900**	**18,400**	**9,220**	**26,800**	**7,070**	**5,470**	**1,030**
Gasoline Range Organics	mg/kg	6,200	17.9 U	19.8 U	17.4 U	14 U	**10.4 J**	17.1 U	20.8 U	19.2 U	32.6 U	**13.2**
Oil & Grease	mg/kg	6,200	**119,000**	**63,200**	**92,100**	**198,000**	**170,000**	**61,600**	**163,000**	**97,400**	**91,900**	**8,720**

Detections in bold
Values in red indicate an exceedance of the Projet Action Limit (PAL)
* indicates non-validated data
^ PAH compounds were analyzed via SIM

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.

Table 7 - Sub-Parcel B22-2 PORI Lagoon Characterization
Summary of Organics Detected in Groundwater

Parameter	Units	PAL	B22-119-PZ*	B22-119-PZ*	B22-119I-PZ*	B22-119I-PZ*	B22-119J-PZ*	B22-119M-PZ*	B22-119N-PZ*	B22-119Q-PZ*	B22-119R-PZ*	B22-119S-PZ*
			5/31/2018	5/28/2020	5/31/2018	6/1/2018	5/31/2018	5/27/2020	5/27/2020	5/28/2020	5/27/2020	5/27/2020
Volatile Organic Compounds												
Acetone	µg/L	14,000	**58.3**	**37.4 J**	**58.3**	**18.9**	**6.9 J**	**6.3 J**	10 U	10 U	10 U	**8.2 J**
Benzene	µg/L	5	**859**	**835**	1 U	1 U	1 U	**0.75 J**	**1.6**	**3.2**	**0.63 J**	**50.5**
Carbon disulfide	µg/L	810	5 U	5 U	1 U	1 U	1 U	1 U	1 U	**1.5**	1 U	1 U
Chloromethane	µg/L	190	5 U	5 U	1 U	**2**	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	µg/L	700	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	**0.64 J**
Methyl tert-butyl ether (MTBE)	µg/L	14	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	**0.61 J**	1 U
Toluene	µg/L	1,000	**124**	**79.4**	**0.36 J**	1 U	1 U	**0.34 J**	**0.63 J**	**0.8 J**	**0.32 J**	**9.7**
Xylenes	µg/L	10,000	**49.3**	**24.6**	3 U	3 U	3 U	3 U	3 U	3 U	3 U	**4.4**
Semi-Volatile Organic Compounds^												
1,1-Biphenyl	µg/L	0.83	**24.4 J**	N/A	N/A	1 U	0.98 U	N/A	N/A	N/A	N/A	N/A
1,4-Dioxane	µg/L	0.46	**0.87**	**0.69**	N/A	0.1 U	0.098 U	**0.18**	0.1 U	**0.21**	**3**	0.1 U
2,4-Dimethylphenol	µg/L	360	**673**	N/A	N/A	1 U	0.98 U	N/A	N/A	N/A	N/A	N/A
2-Methylnaphthalene	µg/L	36	**75.6**	**31.3**	N/A	**0.074 J**	0.098 U	**5.2**	**2**	**0.27**	**1.6**	**3.7**
2-Methylphenol	µg/L	930	**1,820**	N/A	N/A	1 U	0.98 U	N/A	N/A	N/A	N/A	N/A
3&4-Methylphenol(m&p Cresol)	µg/L	930	**1,260**	N/A	N/A	2 U	2 U	N/A	N/A	N/A	N/A	N/A
Acenaphthene	µg/L	530	**29.7**	**36.6**	N/A	**0.49**	0.098 U	**8**	**0.99**	**0.19**	**1.8**	**2.9**
Acenaphthylene	µg/L	530	**38.4**	**4.9**	N/A	0.1 U	0.098 U	**0.3**	**0.61**	**0.069 J**	**0.081 J**	**0.68**
Anthracene	µg/L	1,800	**72.7**	**18.9**	N/A	**0.19**	**0.066 J**	**2.7**	**1.8**	**0.096 J**	**0.46**	**2**
Benz[a]anthracene	µg/L	0.03	**65.8**	**4.4**	N/A	**0.14**	0.098 U	**0.3**	**4.2**	**0.21**	**0.11**	**2**
Benzo[a]pyrene	µg/L	0.2	**57.3**	**3**	N/A	**0.12**	0.098 U	**0.037 J**	**3.8**	**0.2**	**0.038 J**	**1.7**
Benzo[b]fluoranthene	µg/L	0.25	**77.9**	**5.4**	N/A	**0.19**	0.098 U	**0.07 J**	**6.5**	**0.44**	**0.057 J**	**1.8**
Benzo[g,h,i]perylene	µg/L		**18.7**	**1.3**	N/A	**0.06 J**	0.098 U	0.095 U	**1.9**	**0.13**	0.095 U	**0.78**
Benzo[k]fluoranthene	µg/L	2.5	**27.7**	**4.4**	N/A	**0.07 J**	0.098 U	0.095 U	**5.6**	**0.36**	0.095 U	**0.69**
bis(2-Ethylhexyl)phthalate	µg/L	6	98 U	N/A	N/A	**0.32 J**	0.98 U	N/A	N/A	N/A	N/A	N/A
Caprolactam	µg/L	9,900	245 U	N/A	N/A	**0.4 J**	2.5 U	N/A	N/A	N/A	N/A	N/A
Carbazole	µg/L		**208**	N/A	N/A	**1.8**	0.98 U	N/A	N/A	N/A	N/A	N/A
Chrysene	µg/L	25	**63.8**	**3.6**	N/A	**0.13**	0.098 U	**0.15**	**4.4**	**0.23**	**0.07 J**	**1.6**
Dibenz[a,h]anthracene	µg/L	0.025	**6.5**	**0.43 J**	N/A	0.1 U	0.098 U	0.095 U	**0.82**	**0.043 J**	0.095 U	**0.27**
Fluoranthene	µg/L	800	**181**	**20.1**	N/A	**0.52**	0.098 U	**5.8**	**7.7**	**0.42**	**0.53**	**5.7**
Fluorene	µg/L	290	**96.6**	**41.9**	N/A	**0.43**	0.098 U	**8.8**	**1.7**	**0.22**	**1.9**	**4.8**
Indeno[1,2,3-c,d]pyrene	µg/L	0.25	**20.5**	**1.3**	N/A	**0.051 J**	0.098 U	0.095 U	**2**	**0.11**	0.095 U	**0.83**
Naphthalene	µg/L	0.12	**2,550**	**886**	N/A	**0.15**	**0.041 J**	**39**	**1.1**	**6.2**	**5.2**	**120**
Phenanthrene	µg/L		**537**	**73.6**	N/A	**0.87**	0.098 U	**18.8**	**7.4**	**0.47**	**1.9**	**8.7**
Phenol	µg/L	5,800	**437**	N/A	N/A	1 U	0.98 U	N/A	N/A	N/A	N/A	N/A
Pyrene	µg/L	120	**126**	**13.8**	N/A	**0.39**	0.098 U	**3.7**	**6.2**	**0.42**	**0.33**	**3.7**
TPH/Oil & Grease												
Diesel Range Organics	µg/L	47	**17,200**	**19,700**	N/A	**363**	**282**	**1,700**	**12,000**	**2,770**	**1,600**	**1,900**
Gasoline Range Organics	µg/L	47	**2,460**	**1,470**	200 U	200 U	200 U	200 U	200 U	200 U	200 U	**129 J**
Oil & Grease	µg/L	47	**1,700 J**	**1,300 J**	N/A	4,750 U	4,770 U	**9,000**	4,750 U	**1,200 J**	**2,100 J**	**1,600 J**

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

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
B: This analyte was not detected substantially above the level of the associated method blank or field blank.
J: The positive result reported for this analyte is a quantitative estimate.

Table 8 - Sub-Parcel B22-2
Cumulative Vapor Intrusion Comparison

				B22-119-PZ		B22-119-PZ		B22-119I-PZ		B22-119I-PZ		B22-119J-PZ		B22-119M-PZ		B22-119N-PZ		B22-119Q-PZ		B22-119R-PZ		B22-119S-PZ	
				5/28/2020		5/31/2018		5/31/2018		6/1/2018		5/31/2018		5/27/2020		5/27/2020		5/28/2020		5/27/2020		5/27/2020	
Parameter	Type	Organ Systems	VI Screening Criteria (ug/L)	Conc. (ug/L)	Risk/ Hazard	Conc. (ug/L)	Risk/ Hazard	Conc. (ug/L)	Risk/ Hazard	Conc. (ug/L)	Risk/ Hazard	Conc. (ug/L)	Risk/ Hazard	Conc. (ug/L)	Risk/ Hazard	Conc. (ug/L)	Risk/ Hazard	Conc. (ug/L)	Risk/ Hazard	Conc. (ug/L)	Risk/ Hazard	Conc. (ug/L)	Risk/ Hazard
Cancer Risk																							
1,4-Dioxane	SVOC		130,000	0.69	5.3E-11	0.87	6.7E-11	NA	NA	0.1 U	0	0.098 U	0	0.18	1.4E-11	0.1 U	0	0.21	1.6E-11	3	2.3E-10	0.1 U	0
Naphthalene	SVOC		200	886	4.4E-05	2,550	1.3E-04	NA	NA	0.15	7.5E-09	0.041 J	2.1E-09	39	2.0E-06	1.1	5.5E-08	6.2	3.1E-07	5.2	2.6E-07	120	6.0E-06
1,1-Dichloroethane	VOC		330	5 U	0	5 U	0	1 U	0	1 U	0	1 U	0	1 U	0	1 U	0	1 U	0	1 U	0	1 U	0
Benzene	VOC		69	835	1.2E-04	859	1.2E-04	1 U	0	1 U	0	1 U	0	0.75 J	1.1E-07	1.6	2.3E-07	3.2	4.6E-07	0.63 J	9.1E-08	50.5	7.3E-06
Chloroform	VOC		36	5 U	0	5 U	0	1 U	0	1 U	0	1 U	0	1 U	0	1 U	0	1 U	0	1 U	0	1 U	0
Ethylbenzene	VOC		150	5 U	0	5 U	0	1 U	0	1 U	0	1 U	0	1 U	0	1 U	0	1 U	0	1 U	0	0.64 J	4.3E-08
Methyl tert-butyl ether (MTBE)	VOC		20,000	5 U	0	5 U	0	1 U	0	1 U	0	1 U	0	1 U	0	1 U	0	1 U	0	0.61 J	3.1E-10	1 U	0
Cumulative Vapor Intrusion Cancer Risk					**2E-04**		**3E-04**		0		8E-09		2E-09		2E-06		3E-07		8E-07		4E-07		1E-05
Non-Cancer Hazard																							
1,1-Biphenyl	SVOC	Urinary	140	NA	NA	24.4 J	0.2	NA	NA	1 U	0	0.98 U	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cumulative Vapor Intrusion Non-Cancer Hazard					NA		0		NA		0		0		NA		NA		NA		NA		NA

				FM-004-PZS		FM-005-PZS		FM-006-PZS		FM-007-PZS		FM-013-PZS		TM09-PZM007		TM11-PZM007		TM13-PZM007		TM15-PZM007		TM15-PZM011	
				6/16/2016		5/25/2016		6/9/2016		5/25/2016		6/9/2016		6/28/2016		6/29/2016		6/27/2016		6/24/2016		6/24/2016	
Parameter	Type	Organ Systems	VI Screening Criteria (ug/L)	Conc. (ug/L)	Risk/ Hazard	Conc. (ug/L)	Risk/ Hazard	Conc. (ug/L)	Risk/ Hazard	Conc. (ug/L)	Risk/ Hazard	Conc. (ug/L)	Risk/ Hazard	Conc. (ug/L)	Risk/ Hazard	Conc. (ug/L)	Risk/ Hazard	Conc. (ug/L)	Risk/ Hazard	Conc. (ug/L)	Risk/ Hazard	Conc. (ug/L)	Risk/ Hazard
Cancer Risk																							
1,4-Dioxane	SVOC		130,000	10.3	7.9E-10	0.94	7.2E-11	0.091 J	7.0E-12	0.1 U	0	0.85	6.5E-11	1.9	1.5E-10	2.1	1.6E-10	0.1 U	0	0.1 U	0	0.17	1.3E-11
Naphthalene	SVOC		200	0.2	1.0E-08	3	1.5E-07	0.03 B	0	0.059 B	0	0.23	1.2E-08	6.2	3.1E-07	4.6	2.3E-07	23.3	1.2E-06	113	5.7E-06	29.5	1.5E-06
1,1-Dichloroethane	VOC		330	1 U	0	0.45 J	1.4E-08	1 U	0	1 U	0	0.75 J	2.3E-08	2.5	7.6E-08	1	3.0E-08	1 U	0	1 U	0	1 U	0
Benzene	VOC		69	1 U	0	1 U	0	1 U	0	1 U	0	1 U	0	0.71 B	0	0.41 J	5.9E-08	2.6	3.8E-07	2	2.9E-07	1.2	1.7E-07
Chloroform	VOC		36	1 U	0	1 U	0	1 U	0	0.67 J	1.9E-07	0.87 J	2.4E-07	1 U	0	1 U	0	1 U	0	1 U	0	1 U	0
Ethylbenzene	VOC		150	1 U	0	1 U	0	1 U	0	1 U	0	0.75 J	5.0E-08	1 U	0	1 U	0	1 U	0	0.58 J	3.9E-08	1 U	0
Methyl tert-butyl ether (MTBE)	VOC		20,000	1 U	0	1 U	0	1 U	0	1 U	0	1 U	0	1 U	0	1 U	0	1 U	0	1 U	0	1 U	0
Cumulative Vapor Intrusion Cancer Risk					1E-08		2E-07		7E-12		2E-07		3E-07		4E-07		3E-07		2E-06		6E-06		2E-06
Non-Cancer Hazard																							
1,1-Biphenyl	SVOC	Urinary	140	1 U	0	1 U	0	1 U	0	1 U	0	1 U	0	1 U	0	1 U	0	1 U	0	3.6	0.03	0.35 J	0.003
Cumulative Vapor Intrusion Non-Cancer Hazard					0		0		0		0		0		0		0		0		0		0

Yellow highlighted values indicate exceedances of the cumulative vapor intrusion criteria: TCR>1E-05 or THI>1
Conc. = Concentration
NA = Not Sampled

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

Table 9 - Sub-Parcel B22-2
Summary of PCBs Detected in Soil (B22-028 Delineation and Excavation)

Parameter	Units	PAL	B22-028 EAST EXCAVATION BOTTOM*	B22-028 MAIN BOTTOM*	B22-028 MAIN EAST SIDEWALL*	B22-028 MAIN NORTH SIDEWALL*	B22-028A-SB-1*	B22-028A-SB-5*	B22-028B-SB-1*	B22-028B-SB-5*	B22-028C-SB-1*	B22-028C-SB-2*	B22-028C-SB-3*
			9/15/2016	9/15/2016	9/15/2016	9/15/2016	8/5/2016	8/5/2016	8/5/2016	8/5/2016	8/5/2016	8/5/2016	8/5/2016
PCBs													
Aroclor 1248	mg/kg	0.94	0.0655 U	0.0553 U	2.15 U	1.14 U	0.603 U	0.0583 U	2.79 U	0.0556 U	2.69 U	0.0562 U	0.0674 U
Aroclor 1254	mg/kg	0.97	0.0655 U	0.0553 U	2.15 U	1.14 U	0.603 U	0.0583 U	2.79 U	0.0556 U	2.69 U	0.0562 U	0.0674 U
Aroclor 1268	mg/kg		2.73 B	1.34 B	47.9 B	32.4 B	**20.8**	**0.0723**	**28**	**0.277**	**61.9**	**0.526**	**0.058 J**
PCBs (total)	mg/kg	0.97	**2.73**	**1.34**	**47.9**	**32.4**	**20.8**	**0.0723**	**28**	**0.277**	**61.9**	**0.526**	**0.058 J**

Parameter	Units	PAL	B22-028C-SB-4*	B22-028D-SB-1*	B22-028D-SB-5*	B22-028E-SB-1*	B22-028E-SB-2*	B22-028E-SB-3*	B22-028E-SB-4*	B22-028E-SB-5*	B22-028F-SB-1*	B22-028F-SB-5*	B22-028G-SB-1*
			8/5/2016	8/5/2016	8/5/2016	8/5/2016	8/5/2016	8/5/2016	8/5/2016	8/5/2016	8/5/2016	8/5/2016	8/5/2016
PCBs													
Aroclor 1248	mg/kg	0.94	0.0562 U	0.0646 U	0.0622 U	6.34 U	0.0589 U	0.062 U	0.059 U	0.0578 U	0.277 U	0.0603 U	1.29 U
Aroclor 1254	mg/kg	0.97	0.0562 U	**0.19**	0.0622 U	6.34 U	0.0589 U	0.062 U	0.059 U	0.0578 U	0.277 U	0.0603 U	1.29 U
Aroclor 1268	mg/kg		0.0562 U	**1.51**	0.0622 U	**203**	**2.01**	0.062 U	0.059 U	**0.0492 J**	**7.27**	0.0603 U	**38**
PCBs (total)	mg/kg	0.97	0.0562 U	**1.7**	0.0622 U	**203**	**2.01**	0.062 U	0.059 U	**0.0492 J**	**7.27**	0.0603 U	**38**

Parameter	Units	PAL	B22-028G-SB-5*	B22-028H-SB-1*	B22-028H-SB-2*	B22-028H-SB-3*	B22-028H-SB-4*	B22-028H-SB-5*	B22-028I-SB-1*	B22-028I-SB-5*	B22-028J-SB-1*	B22-028J-SB-5*	B22-028K-SB-1*
			8/5/2016	8/8/2016	8/8/2016	8/8/2016	8/8/2016	8/8/2016	8/29/2016	8/29/2016	8/29/2016	8/29/2016	8/29/2016
PCBs													
Aroclor 1248	mg/kg	0.94	0.0668 U	3.19 U	0.717 U	0.0584 U	0.058 U	0.0558 U	0.0519 U	0.0532 U	0.0606 U	0.055 U	1.24 U
Aroclor 1254	mg/kg	0.97	0.0668 U	3.19 U	0.717 U	0.0584 U	0.058 U	0.0558 U	0.0519 U	0.0532 U	0.0606 U	0.055 U	1.24 U
Aroclor 1268	mg/kg		0.0668 U	**159**	**33.2**	**0.117**	0.058 U	0.0558 U	**0.758**	0.0532 U	**0.53**	0.055 U	**37.6**
PCBs (total)	mg/kg	0.97	0.0668 U	**159**	**33.2**	**0.117**	0.058 U	0.0558 U	**0.758**	0.0532 U	**0.53**	0.055 U	**37.6**

Parameter	Units	PAL	B22-028K-SB-5*	B22-028P-SB-1*	B22-028P-SB-5*	B22-028Q-SB-1*	B22-028Q-SB-5*	B22-028R-SB-1*	B22-028R-SB-5*	B22-028S-SB-1*	B22-028S-SB-5*	B22-028T-SB-1*	B22-028T-SB-5*
			8/29/2016	8/29/2016	8/29/2016	8/29/2016	8/29/2016	8/29/2016	8/29/2016	8/29/2016	8/29/2016	8/29/2016	8/29/2016
PCBs													
Aroclor 1248	mg/kg	0.94	0.0622 U	1.15 U	0.054 U	**0.607**	0.0668 U	0.283 U	0.0623 U	0.0542 U	0.0572 U	**0.387**	0.0576 U
Aroclor 1254	mg/kg	0.97	0.0622 U	1.15 U	0.054 U	0.168 U	0.0668 U	0.283 U	0.0623 U	**0.0708**	0.0572 U	0.186 U	0.0576 U
Aroclor 1268	mg/kg		0.0622 U	**31.9**	**0.0917**	**3.18**	0.0668 U	**9.94**	0.0623 U	**0.934**	0.0572 U	**4.5**	0.0576 U
PCBs (total)	mg/kg	0.97	0.0622 U	**31.9**	**0.0917**	**3.787**	0.0668 U	**9.94**	0.0623 U	**1.0048**	0.0572 U	**4.887**	0.0576 U

Detections in bold
Values in red indicate an exceedance of the Project Action Limit (PAL)
* indicates non-validated data
Not included in SLRA due to excavation

U: This analyte was not detected in the sample. The numeric value represents the ample quantitation/detection limit.
J: The positive result reported for this analyte is a quantitative estimate.
B: This analyte was not detected substantially above the level of the associated method blank or field blank.

Table 10 - Sub-Parcel B22-2
COPC Screening Analysis

Parameter	CAS#	Location of Max Result	Max Detection (mg/kg)	Final Flag	Min Detection (mg/kg)	Average Detection (mg/kg)	Total Samples	Frequency of Detection (%)	Cancer TR=1E-06 (mg/kg)	Non-Cancer HQ=0.1 (mg/kg)	COPC?
1,1,1-Trichloroethane	71-55-6	B22-024-SB-1	0.087		0.0063	0.03	159	2.52		3,600	no
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	B22-113-SB-4	0.0091	J	0.0091	0.009	159	0.63		2,800	no
1,1-Biphenyl	92-52-4	B22-116-SB-8.5	5.7		0.015	0.27	142	35.92	410	20	no
1,1-Dichloroethane	75-34-3	B22-102-SB-5	0.32		0.0019	0.09	159	3.14	16	23,000	no
1,1-Dichloroethene	75-35-4	B22-102-SB-5	0.018		0.018	0.02	159	0.63		100	no
1,2,3-Trichlorobenzene	87-61-6	B22-060-SB-1	0.0015	J	0.0015	0.002	159	0.63		93	no
1,2,4,5-Tetrachlorobenzene	95-94-3	B22-097-SB-1	0.1		0.023	0.06	142	1.41		35	no
1,2,4-Trichlorobenzene	120-82-1	B22-TP-4-3	0.089	J	0.077	0.08	159	1.26	110	26	no
1,2-Dichlorobenzene	95-50-1	B22-TP-2-1 & B22-TP-1-3	0.15	J	0.086	0.13	159	1.89		930	no
1,2-Dichloroethane	107-06-2	B21-014-SB-8	0.0011	J	0.0011	0.001	159	0.63	2	14	no
1,4-Dichlorobenzene	106-46-7	B22-TP-2-1	1.4		0.0093	0.43	159	6.29	11	2,500	no
2,4-Dimethylphenol	105-67-9	B22-119-SB-9	0.96		0.014	0.24	141	4.26		1,600	no
2-Butanone (MEK)	78-93-3	B22-TP-5-5	0.42	J	0.0021	0.04	159	18.24		19,000	no
2-Chloronaphthalene	91-58-7	B22-026-SB-9	0.06	J	0.051	0.06	142	1.41		6,000	no
2-Hexanone	591-78-6	B22-110-SB-1	0.019		0.0023	0.01	159	1.26		130	no
2-Methylnaphthalene	91-57-6	B22-152-SB-6	66.1		0.0016	1.06	193	82.90		300	no
2-Methylphenol	95-48-7	B22-119-SB-9	1.5		0.03	0.77	141	1.42		4,100	no
3,3'-Dichlorobenzidine	91-94-1	B21-049-SB-5	0.019	J	0.019	0.02	142	0.70	5.1		no
4-Methyl-2-pentanone (MIBK)	108-10-1	B22-110-SB-1	0.0069	J	0.0069	0.007	159	0.63		14,000	no
4-Nitroaniline	100-01-6	B22-112-SB-1	0.69		0.69	0.69	142	0.70	110	330	no
Acenaphthene	83-32-9	B22-119H-SB-11	63.1		0.00049	0.86	193	83.42		4,500	no
Acenaphthylene	208-96-8	B22-149-SB-8	8		0.00095	0.30	193	86.53			no
Acetone	67-64-1	B22-TP-6-3	0.7	J	0.0037	0.11	159	50.94		67,000	no
Acetophenone	98-86-2	B22-110-SB-1	1.9		0.02	0.28	142	8.45		12,000	no
Aluminum	7429-90-5	B21-023-SB-5	53,100		465	18,624	143	100.00		110,000	no
Anthracene	120-12-7	B22-119H-SB-11	232		0.00081	2.04	193	91.19		23,000	no
Antimony	7440-36-0	B22-176-SB-8	5.7		1.7	2.93	143	4.90		47	no
Aroclor 1242	53469-21-9	B22-153-SB-1	1.01		0.028	0.44	122	2.46	0.95		YES (C)
Aroclor 1248	12672-29-6	B22-032-SB-1	14.9		0.024	1.09	122	14.75	0.95		YES (C)
Aroclor 1254	11097-69-1	B22-174-SB-1	6.63		0.0287	0.50	122	15.57	0.97	1.5	YES (C/NC)

Table 10 - Sub-Parcel B22-2
COPC Screening Analysis

Parameter	CAS#	Location of Max Result	Max Detection (mg/kg)	Final Flag	Min Detection (mg/kg)	Average Detection (mg/kg)	Total Samples	Frequency of Detection (%)	Cancer TR=1E-06 (mg/kg)	Non-Cancer HQ=0.1 (mg/kg)	COPC?
Aroclor 1260	11096-82-5	B21-032-SB-1	3.8		0.0272	0.89	122	6.56	0.99		YES (C)
Arsenic	7440-38-2	B22-148-SB-6	40.8		2.1	8.62	164	87.80	3	48	YES (C)
Barium	7440-39-3	B22-176-SB-8	918		3.7	235	143	100.00		22,000	no
Benz[a]anthracene	56-55-3	B22-119H-SB-11	305		0.0016	3.25	194	92.78	21		YES (C)
Benzaldehyde	100-52-7	B22-023-SB-1	0.49		0.017	0.10	126	28.57	820	12,000	no
Benzene	71-43-2	B22-119-SB-9	3.9	J	0.0019	0.31	159	9.43	5.1	42	no
Benzo[a]pyrene	50-32-8	B22-119H-SB-11	252		0.00059	3.09	207	93.24	2.1	22	YES (C/NC)
Benzo[b]fluoranthene	205-99-2	B22-119H-SB-11	409		0.0012	4.54	195	95.90	21		YES (C)
Benzo[g,h,i]perylene	191-24-2	B22-119H-SB-11	54		0.00091	0.82	193	91.71			no
Benzo[k]fluoranthene	207-08-9	B22-119H-SB-11	109		0.0018	2.33	193	93.26	210		no
Beryllium	7440-41-7	B21-019-SB-2 & B21-035-SB-5	7.3		0.19	2.02	143	84.62	6,900	230	no
bis(2-Ethylhexyl)phthalate	117-81-7	B22-145-SB-1	1.8		0.014	0.16	142	35.92	160	1,600	no
Cadmium	7440-43-9	B22-102-SB-1	79.5		0.26	4.37	143	44.76	9,300	98	no
Carbazole	86-74-8	B21-050-SB-2	10.4		0.018	0.50	142	42.96			no
Carbon disulfide	75-15-0	B22-TP-3-3	1		0.002	0.13	159	13.84		350	no
Carbon tetrachloride	56-23-5	B21-014-SB-8	0.0033	J	0.0033	0.003	159	0.63	2.9	57	no
Chloroform	67-66-3	B22-149-SB-8	0.0075		0.0075	0.008	159	0.63	1.4	100	no
Chloromethane	74-87-3	B22-TP-3-1	0.0091	J	0.0091	0.009	159	0.63		46	no
Chromium	7440-47-3	B21-014-SB-8	2,570		3	552	143	100.00		180,000	no
Chromium VI	18540-29-9	B22-026-SB-1	29.5		0.82	9.32	132	5.30	6.3	350	YES (C)
Chrysene	218-01-9	B22-119H-SB-11	230		0.00043	2.66	193	95.85	2,100		no
cis-1,2-Dichloroethene	156-59-2	B22-116-SB-8.5	0.055		0.0071	0.03	159	1.26		230	no
Cobalt	7440-48-4	B22-110-SB-4	44.1		0.43	9.46	143	92.31	1,900	35	YES (NC)
Copper	7440-50-8	B22-125-SB-4	1,740		1.6	142	143	95.10		4,700	no
Cyanide	57-12-5	B21-060-SB-1	16.8	J-	0.082	1.75	142	50.00		120	no
Cyclohexane	110-82-7	B22-148-SB-6	0.092		0.0041	0.05	159	1.26		2,700	no
Dibenz[a,h]anthracene	53-70-3	B22-119H-SB-11	26.1		0.0014	0.39	195	81.03	2.1		YES (C)
Diethylphthalate	84-66-2	B22-120-SB-1	0.17		0.15	0.16	142	1.41		66,000	no
Di-n-butylphthalate	84-74-2	B21-059-SB-1	2.6		0.021	0.47	142	5.63		8,200	no
Di-n-ocytlphthalate	117-84-0	B22-110-SB-1	0.27		0.023	0.10	142	4.23		820	no

Table 10 - Sub-Parcel B22-2
COPC Screening Analysis

Parameter	CAS#	Location of Max Result	Max Detection (mg/kg)	Final Flag	Min Detection (mg/kg)	Average Detection (mg/kg)	Total Samples	Frequency of Detection (%)	Cancer TR=1E-06 (mg/kg)	Non-Cancer HQ=0.1 (mg/kg)	COPC?
Ethylbenzene	100-41-4	B22-153-SB-4	0.18	J	0.0013	0.04	159	7.55	25	2,000	no
Fluoranthene	206-44-0	B22-119H-SB-11	1,490		0.0012	11.2	193	96.37		3,000	no
Fluorene	86-73-7	B22-119H-SB-11	140		0.00069	1.48	193	84.46		3,000	no
Indeno[1,2,3-c,d]pyrene	193-39-5	B22-119H-SB-11	61.4		0.0012	0.92	193	90.16	21		YES (C)
Iron	7439-89-6	B22-100-SB-1	246,000		1,080	85,856	143	100.00		82,000	YES (NC)
Isopropylbenzene	98-82-8	B22-TP-5-5	0.34	J	0.0019	0.09	159	6.92		990	no
Lead^	7439-92-1	B22-026-SB-1	6,870		2.6	279	143	97.20		800	YES (NC)
Manganese	7439-96-5	B21-022-SB-9	62,300		26.9	15,526	146	100.00		2,600	YES (NC)
Mercury	7439-97-6	B22-110-SB-1	10.2		0.0024	0.28	142	77.46		35	no
Methyl Acetate	79-20-9	B22-TP-4-1	3.4	J	0.0014	0.46	159	24.53		120,000	no
Methyl tert-butyl ether (MTBE)	1634-04-4	B22-119G-SB-10	0.0013	J	0.0013	0.001	159	0.63	210	6,400	no
Naphthalene	91-20-3	B22-119-SB-10	2,040		0.0017	14.0	194	86.60	8.6	59	YES (C/NC)
Nickel	7440-02-0	B22-148-SB-6	3,320		1.1	64.9	143	93.01	64,000	2,200	YES (NC)
N-Nitrosodiphenylamine	86-30-6	B21-053-SB-2	0.27	J	0.21	0.24	142	1.41	470		no
PCBs (total)*	1336-36-3	B22-028E-SB-1	203		0.024	11.1	122	63.11	0.94		YES (C)
Pentachlorophenol	87-86-5	B22-149-SB-8	0.073	J	0.058	0.07	141	1.42	4	280	no
Phenanthrene	85-01-8	B22-119H-SB-11	1,890		0.00074	12.9	193	96.89			no
Phenol	108-95-2	B22-119-SB-9	1.1		0.019	0.11	141	13.48		25,000	no
Pyrene	129-00-0	B22-119H-SB-11	1,090		0.0013	8.41	193	95.85		2,300	no
Selenium	7782-49-2	B21-033-SB-2.5	6.5		2.3	3.64	143	13.99		580	no
Silver	7440-22-4	B21-033-SB-2.5	96.4		0.45	16.0	143	31.47		580	no
Styrene	100-42-5	B22-110-SB-1	0.065		0.0013	0.03	159	2.52		3,500	no
Tetrachloroethene	127-18-4	B22-099-SB-1	0.014		0.0044	0.009	159	1.26	100	39	no
Thallium	7440-28-0	B21-014-SB-8	178		5	37.5	145	15.17		1.2	YES (NC)
Toluene	108-88-3	B22-119-SB-9	1.4	J	0.0015	0.10	159	11.32		4,700	no
trans-1,2-Dichloroethene	156-60-5	B22-116-SB-8.5	0.0035	J	0.0035	0.004	159	0.63		2,300	no
Trichloroethene	79-01-6	B22-112-SB-4	4.3		0.0073	0.73	159	3.77	6	1.9	YES (NC)
Vanadium	7440-62-2	B21-013-SB-5	13,400		6.6	1,243	143	100.00		580	YES (NC)
Vinyl chloride	75-01-4	B22-116-SB-8.5	0.014		0.014	0.01	159	0.63	1.7	37	no
Xylenes	1330-20-7	B22-153-SB-4	0.96		0.0046	0.20	159	9.43		250	no
Zinc	7440-66-6	B22-110-SB-4	9,230		1.2	663	143	95.10		35,000	no

J: The positive result reported for this analyte is a quantitative estimate.
J-: The positive result reported for this analyte is a quantitative estimate but may be biased low.

COPC = Constituent of Potential Concern
TR = Target Risk — C = Compound was identified as a cancer COPC
HQ = Hazard Quotient — NC = Compound was identified as a non-cancer COPC

*PCBs (total) include the sum of all detected aroclor mixtures, including those without regional screening levels (e.g. Aroclor 1262, Aroclor 1268) which are not displayed.
^The COPC screening level for lead was not adjusted to the HQ=0.1 because lead is not assessed in the SLRA. The 800 mg/kg PAL is relevant to the Adult Lead Model procedure.

Table 11 - Sub-Parcel B22-2
Assessment of Lead

Exposure Unit	Surface/Sub-Surface	Arithmetic Mean (mg/kg)
Site-Wide EU (45.0 ac.)	Surface	294
	Sub-Surface	233
	Pooled	262

ALM Risk Levels	
Soil Concentration	Probability of Blood Concentration of 10 ug/dL
2,518 mg/kg	5%
3,216 mg/kg	10%

Table 12 - Sub-Parcel B22-2
Soil Exposure Point Concentrations

			Site-Wide EU (45.0 ac.)					
			EPCs - Surface Soils		**EPCs - Sub-Surface Soils**		**EPCs - Pooled Soils**	
Parameter	Cancer COPC Screening Level (mg/kg)	Non-Cancer COPC Screening Level (mg/kg)	EPC Type	EPC (mg/kg)	EPC Type	EPC (mg/kg)	EPC Type	EPC (mg/kg)
Arsenic	3.00	48.0	95% GROS Approximate Gamma UCL	**8.04**	KM H-UCL	**9.39**	95% GROS Approximate Gamma UCL	**8.51**
Chromium VI	6.30	350	95% KM (t) UCL	2.34	95% KM (t) UCL	0.32	95% KM (t) UCL	1.18
Cobalt	1,900	35.0	95% KM Approximate Gamma UCL	9.84	95% KM Approximate Gamma UCL	11.0	95% KM Approximate Gamma UCL	9.82
Iron		82,000	95% Student's-t UCL	**104,274**	95% Chebyshev (Mean, Sd) UCL	**111,478**	95% Chebyshev (Mean, Sd) UCL	**108,513**
Manganese		2,600	95% Approximate Gamma UCL	**19,331**	95% Approximate Gamma UCL	**20,344**	95% Approximate Gamma UCL	**18,481**
Nickel	64,000	2,200	KM H-UCL	57.1	95% KM (Chebyshev) UCL	47.0	KM H-UCL	46.8
PCBs (total)	0.94		95% KM (Chebyshev) UCL	**8.83**	95% KM (Chebyshev) UCL	0.66	95% KM (Chebyshev) UCL	**6.52**
Aroclor 1254	NE	1.50	KM H-UCL	0.07	N/A	N/A	KM H-UCL	0.05
Thallium		1.20	95% KM (t) UCL	**12.7**	95% KM Approximate Gamma UCL	**18.7**	95% KM Approximate Gamma UCL	**13.7**
Vanadium		580	95% Approximate Gamma UCL	**1,220**	95% Chebyshev (Mean, Sd) UCL	**2,680**	95% Chebyshev (Mean, Sd) UCL	**1,911**
Benz[a]anthracene	21.0		95% KM Approximate Gamma UCL	0.68	95% KM (Chebyshev) UCL	15.4	95% KM (Chebyshev) UCL	10.2
Benzo[a]pyrene	2.10	22.0	95% KM Approximate Gamma UCL	0.59	95% KM (Chebyshev) UCL	**12.7**	95% KM (Chebyshev) UCL	**8.74**
Benzo[b]fluoranthene	21.0		95% KM Approximate Gamma UCL	1.33	95% KM (Chebyshev) UCL	20.9	95% KM (Chebyshev) UCL	14.0
Dibenz[a,h]anthracene	2.10		95% KM Approximate Gamma UCL	0.11	KM H-UCL	0.69	KM H-UCL	0.39
Indeno[1,2,3-c,d]pyrene	21.0		95% KM Approximate Gamma UCL	0.26	KM H-UCL	3.16	KM H-UCL	1.54
Naphthalene	8.60	59.0	KM H-UCL	0.33	95% KM (Chebyshev) UCL	**91.4**	95% KM (Chebyshev) UCL	**59.6**

Bold indicates EPC higher than lowest COPC Screening Level
COPC = Constituent of Potential Concern
NE = Not Evaluated
N/A = No Detections

Table 13 - Sub-Parcel B22-2
Surface Soils
Composite Worker Risk Ratios

Parameter	Target Organs	Site-Wide EU (45.0 ac.)				
		EPC (mg/kg)	Composite Worker			
			RSLs (mg/kg)		Risk Ratios	
			Cancer	Non-Cancer	Risk	HQ
Arsenic	**Cardiovascular; Dermal**	8.04	3.00	480	2.7E-06	0.02
Chromium VI	**Respiratory**	2.34	6.30	3,500	3.7E-07	0.0007
Cobalt	**Thyroid**	9.84	1,900	350	5.2E-09	0.03
Iron	**Gastrointestinal**	104,274		820,000		0.1
Manganese	**Nervous**	19,331		26,000		0.7
Nickel	**Body Weight**	57.1	64,000	22,000	8.9E-10	0.003
PCBs (total)		8.83	0.94		9.4E-06	
Aroclor 1254	**Dermal; Immune; Ocular**	0.07	NE	15.0		0.005
Thallium	**Dermal**	12.7		12.0		1
Vanadium	**Dermal**	1,220		5,800		0.2
Benz[a]anthracene		0.68	21.0		3.2E-08	
Benzo[a]pyrene	**Developmental**	0.59	2.10	220	2.8E-07	0.003
Benzo[b]fluoranthene		1.33	21.0		6.3E-08	
Dibenz[a,h]anthracene		0.11	2.10		5.2E-08	
Indeno[1,2,3-c,d]pyrene		0.26	21.0		1.2E-08	
Naphthalene	**Nervous; Respiratory**	0.33	8.60	590	3.8E-08	0.0006
					1E-05	↓

RSLs were obtained from the EPA Regional Screening Levels at
https://epa-prgs.ornl.gov/cgi-bin/chemicals/csl_search

NE = Not Evaluated

Total HI	Body Weight	0
	Cardiovascular	0
	Dermal	1
	Developmental	0
	Gastrointestinal	0
	Immune	0
	Nervous	1
	Ocular	0
	Respiratory	0
	Thyroid	0

Table 14 - Sub-Parcel B22-2
Sub-Surface Soils
Composite Worker Risk Ratios

Parameter	Target Organs	Site-Wide EU (45.0 ac.)				
			Composite Worker			
			RSLs (mg/kg)		Risk Ratios	
		EPC (mg/kg)	Cancer	Non-Cancer	Risk	HQ
Arsenic	Cardiovascular; Dermal	9.39	3.00	480	3.1E-06	0.02
Chromium VI	Respiratory	0.32	6.30	3,500	5.1E-08	0.00009
Cobalt	Thyroid	11.0	1,900	350	5.8E-09	0.03
Iron	Gastrointestinal	111,478		820,000		0.1
Manganese	Nervous	20,344		26,000		0.8
Nickel	Body Weight	47.0	64,000	22,000	7.3E-10	0.002
PCBs (total)		0.66	0.94		7.0E-07	
Aroclor 1254	Dermal; Immune; Ocular	N/A	NE	15.0		
Thallium	Dermal	18.7		12.0		2
Vanadium	Dermal	2,680		5,800		0.5
Benz[a]anthracene		15.4	21.0		7.3E-07	
Benzo[a]pyrene	Developmental	12.7	2.10	220	6.0E-06	0.06
Benzo[b]fluoranthene		20.9	21.0		1.0E-06	
Dibenz[a,h]anthracene		0.69	2.10		3.3E-07	
Indeno[1,2,3-c,d]pyrene		3.16	21.0		1.5E-07	
Naphthalene	Nervous; Respiratory	91.4	8.60	590	1.1E-05	0.2
					2E-05	↓

RSLs were obtained from the EPA Regional Screening Levels at
https://epa-prgs.ornl.gov/cgi-bin/chemicals/csl_search

NE = Not Evaluated
N/A = No Detections

Total HI	Body Weight	0
	Cardiovascular	0
	Dermal	2
	Developmental	0
	Gastrointestinal	0
	Immune	0
	Nervous	1
	Ocular	0
	Respiratory	0
	Thyroid	0

Table 15 - Sub-Parcel B22-2
Pooled Soils
Composite Worker Risk Ratios

		Site-Wide EU (45.0 ac.)				
			Composite Worker			
			RSLs (mg/kg)		Risk Ratios	
Parameter	**Target Organs**	**EPC (mg/kg)**	**Cancer**	**Non-Cancer**	**Risk**	**HQ**
Arsenic	**Cardiovascular; Dermal**	8.51	3.00	480	2.8E-06	0.02
Chromium VI	**Respiratory**	1.18	6.30	3,500	1.9E-07	0.0003
Cobalt	**Thyroid**	9.82	1,900	350	5.2E-09	0.03
Iron	**Gastrointestinal**	108,513		820,000		0.1
Manganese	**Nervous**	18,481		26,000		0.7
Nickel	**Body Weight**	46.8	64,000	22,000	7.3E-10	0.002
PCBs (total)		6.52	0.94		6.9E-06	
Aroclor 1254	**Dermal; Immune; Ocular**	0.05	NE	15.0		0.003
Thallium	**Dermal**	13.7		12.0		1
Vanadium	**Dermal**	1,911		5,800		0.3
Benz[a]anthracene		10.2	21.0		4.9E-07	
Benzo[a]pyrene	**Developmental**	8.74	2.10	220	4.2E-06	0.04
Benzo[b]fluoranthene		14.0	21.0		6.7E-07	
Dibenz[a,h]anthracene		0.39	2.10		1.9E-07	
Indeno[1,2,3-c,d]pyrene		1.54	21.0		7.3E-08	
Naphthalene	**Nervous; Respiratory**	59.6	8.60	590	6.9E-06	0.1
					2E-05	↓

RSLs were obtained from the EPA Regional Screening Levels at
https://epa-prgs.ornl.gov/cgi-bin/chemicals/csl_search

NE = Not Evaluated

Total HI	Body Weight	0
	Cardiovascular	0
	Dermal	1
	Developmental	0
	Gastrointestinal	0
	Immune	0
	Nervous	1
	Ocular	0
	Respiratory	0
	Thyroid	0

Table 16 - Sub-Parcel B22-2
Surface Soils
Construction Worker Risk Ratios

25 Day		Site-Wide EU (45.0 ac.)				
			Construction Worker			
			SSLs (mg/kg)		Risk Ratios	
Parameter	**Target Organs**	**EPC (mg/kg)**	**Cancer**	**Non-Cancer**	**Risk**	**HQ**
Arsenic	**Cardiovascular; Dermal**	8.04	151	965	5.3E-08	0.008
Chromium VI	**Respiratory**	2.34	216	8,011	1.1E-08	0.0003
Cobalt	**Thyroid**	9.84	51,228	9,561	1.9E-10	0.001
Iron	**Gastrointestinal**	104,274		2,405,413		0.04
Manganese	**Nervous**	19,331		42,305		0.5
Nickel	**Body Weight**	57.1	1,773,268	39,245	3.2E-11	0.001
PCBs (total)		8.83	29.7		3.0E-07	
Aroclor 1254	**Dermal; Immune; Ocular**	0.07	NE	74.8		0.0009
Thallium	**Dermal**	12.7		137		0.09
Vanadium	**Dermal**	1,220		16,033		0.08
Benz[a]anthracene		0.68	1,189		5.7E-10	
Benzo[a]pyrene	**Developmental**	0.59	163	31.2	3.6E-09	0.02
Benzo[b]fluoranthene		1.33	1,614		8.2E-10	
Dibenz[a,h]anthracene		0.11	178		6.2E-10	
Indeno[1,2,3-c,d]pyrene		0.26	1,704		1.5E-10	
Naphthalene	**Nervous; Respiratory**	0.33	62.1	94.2	5.3E-09	0.004
					4E-07	↓

SSLs calculated using equations in the EPA Supplemental Guidance dated 2002
Guidance Equation Input Assumptions:
5 cars/day (2 tons/car)
5 trucks/day (20 tons/truck)
3 meter source depth thickness
NE = Not Evaluated

Total HI	Body Weight	0
	Cardiovascular	0
	Dermal	0
	Developmental	0
	Gastrointestinal	0
	Immune	0
	Nervous	0
	Ocular	0
	Respiratory	0
	Thyroid	0

Table 17 - Sub-Parcel B22-2
Sub-Surface Soils
Construction Worker Risk Ratios

25 Day		Site-Wide EU (45.0 ac.)				
			Construction Worker			
			SSLs (mg/kg)		Risk Ratios	
Parameter	Target Organs	EPC (mg/kg)	Cancer	Non-Cancer	Risk	HQ
Arsenic	Cardiovascular; Dermal	9.39	151	965	6.2E-08	0.01
Chromium VI	Respiratory	0.32	216	8,011	1.5E-09	0.00004
Cobalt	Thyroid	11.0	51,228	9,561	2.1E-10	0.001
Iron	Gastrointestinal	111,478		2,405,413		0.05
Manganese	Nervous	20,344		42,305		0.5
Nickel	Body Weight	47.0	1,773,268	39,245	2.7E-11	0.001
PCBs (total)		0.66	29.7		2.2E-08	
Aroclor 1254	Dermal; Immune; Ocular	N/A	NE	74.8		
Thallium	Dermal	18.7		137		0.1
Vanadium	Dermal	2,680		16,033		0.2
Benz[a]anthracene		15.4	1,189		1.3E-08	
Benzo[a]pyrene	Developmental	12.7	163	31.2	7.8E-08	0.4
Benzo[b]fluoranthene		20.9	1,614		1.3E-08	
Dibenz[a,h]anthracene		0.69	178		3.9E-09	
Indeno[1,2,3-c,d]pyrene		3.16	1,704		1.9E-09	
Naphthalene	Nervous; Respiratory	91.4	62.1	94.2	1.5E-06	1
					2E-06	↓

SSLs calculated using equations in the EPA Supplemental Guidance dated 2002
Guidance Equation Input Assumptions:
- 5 cars/day (2 tons/car)
- 5 trucks/day (20 tons/truck)
- 3 meter source depth thickness

NE = Not Evaluated
N/A = No Detections

Total HI	Body Weight	0
	Cardiovascular	0
	Dermal	0
	Developmental	0
	Gastrointestinal	0
	Immune	0
	Nervous	1
	Ocular	0
	Respiratory	1
	Thyroid	0

Table 18 - Sub-Parcel B22-2
Pooled Soils
Construction Worker Risk Ratios

25 Day		**Site-Wide EU (45.0 ac.)**				
			Construction Worker			
			SSLs (mg/kg)		**Risk Ratios**	
Parameter	**Target Organs**	**EPC (mg/kg)**	**Cancer**	**Non-Cancer**	**Risk**	**HQ**
Arsenic	**Cardiovascular; Dermal**	8.51	151	965	5.6E-08	0.009
Chromium VI	**Respiratory**	1.18	216	8,011	5.5E-09	0.0001
Cobalt	**Thyroid**	9.82	51,228	9,561	1.9E-10	0.001
Iron	**Gastrointestinal**	108,513		2,405,413		0.05
Manganese	**Nervous**	18,481		42,305		0.4
Nickel	**Body Weight**	46.8	1,773,268	39,245	2.6E-11	0.001
PCBs (total)		6.52	29.7		2.2E-07	
Aroclor 1254	**Dermal; Immune; Ocular**	0.05	NE	74.8		0.0007
Thallium	**Dermal**	13.7		137		0.1
Vanadium	**Dermal**	1,911		16,033		0.1
Benz[a]anthracene		10.2	1,189		8.6E-09	
Benzo[a]pyrene	**Developmental**	8.74	163	31.2	5.4E-08	0.3
Benzo[b]fluoranthene		14.0	1,614		8.7E-09	
Dibenz[a,h]anthracene		0.39	178		2.2E-09	
Indeno[1,2,3-c,d]pyrene		1.54	1,704		9.0E-10	
Naphthalene	**Nervous; Respiratory**	59.6	62.1	94.2	9.6E-07	0.6
					1E-06	↓

SSLs calculated using equations in the EPA Supplemental Guidance dated 2002
<u>Guidance Equation Input Assumptions:</u>
  5 cars/day (2 tons/car)
  5 trucks/day (20 tons/truck)
  3 meter source depth thickness
NE = Not Evaluated

Total HI	Body Weight	0
	Cardiovascular	0
	Dermal	0
	Developmental	0
	Gastrointestinal	0
	Immune	0
	Nervous	1
	Ocular	0
	Respiratory	1
	Thyroid	0

APPENDIX A

TRADEPOINT
ATLANTIC
1600 Sparrows Point Boulevard
Baltimore, Maryland 21219

November 2, 2020

Maryland Department of Environment
1800 Washington Boulevard
Baltimore MD, 21230

Attention: Ms. Barbara Brown

Subject: Request to Enter Temporary CHS Review
Tradepoint Atlantic Parcel B22-2

Dear Ms. Brown:

The conduct of any environmental assessment and cleanup activities on the Tradepoint Atlantic property, as well as any associated development, is subject to the requirements outlined in the following agreements:

- Administrative Consent Order (ACO) between Tradepoint Atlantic (formerly Sparrows Point Terminal, LLC) and the Maryland Department of the Environment (effective September 12, 2014); and
- Settlement Agreement and Covenant Not to Sue (SA) between Tradepoint Atlantic (formerly Sparrows Point Terminal, LLC) and the United States Environmental Protection Agency (effective November 25, 2014).

On September 11, 2014, Tradepoint Atlantic submitted an application to the Maryland Department of the Environment's (Department) Voluntary Cleanup Program (VCP).

In consultation with the Department, Tradepoint Atlantic affirms that it desires to accelerate the assessment, remediation and redevelopment of certain sub-parcels within the larger site due to current market conditions. To that end, the Department and Tradepoint Atlantic agree that the Controlled Hazardous Substance (CHS) Act (Section 7-222 of the Environment Article) and the CHS Response Plan (COMAR 26.14.02) shall serve as the governing statutory and regulatory authority for completing the development activities on Sub-Parcel B22-2 and complement the statutory requirements of the Voluntary Cleanup Program (Section 7-501 of the Environment Article). Upon submission of a Site Response and Development Work Plan and completion of the remedial activities for the sub-parcel, the Department shall issue a "No Further Action" letter upon a recordation of an environmental covenant describing any necessary land use controls for the specific sub-parcel. At such time that all the sub-parcels within the larger parcel have completed remedial activities, Tradepoint Atlantic shall submit to the Department a request for issuing a Certificate of Completion (COC) as well as all pertinent information concerning completion of remedial activities conducted on the parcel. Once the VCP has completed its review of the submitted information it shall issue a COC for the entire parcel described in Tradepoint Atlantic's VCP application.

Alternatively, Tradepoint Atlantic or other entity may elect to submit an application for a specific sub-parcel and submit it to the VCP for review and acceptance. If the application is received after the cleanup and redevelopment activities described in this work plan are implemented and a No Further Action letter is issued by the Department pursuant to the CHS Act, the VCP shall prepare a No Further Requirements Determination for the sub-parcel.

If Tradepoint Atlantic or other entity has not carried out cleanup and redevelopment activities described in the work plan, the cleanup and redevelopment activities may be conducted under the oversight authority of either the VCP or the CHS Act, so long as those activities comport with this work plan.

Engineering and institutional controls approved as part of this Site Response and Development Work Plan shall be described in documentation submitted to the Department demonstrating that the exposure pathways on the sub-parcel are addressed in a manner that protects public health and the environment. This information shall support Tradepoint Atlantic's request for the issuance of a COC for the larger parcel.

Please do not hesitate to contact Tradepoint Atlantic for further information.

Thank you,

P. Haid

Peter Haid

Vice President Environmental
TRADEPOINT ATLANTIC
1600 Sparrows Point Boulevard
Baltimore, Maryland 21219
T 443.649.5055 C 732.841.7935
phaid@tradepointatlantic.com

APPENDIX B

ARM Group LLC
Engineers and Scientists

Boring ID: B21-060-SB

(page 1 of 1)

Client	: Tradepoint Atlantic	Date	: 7/25/18
ARM Project No.	: 150300M-19-3	Weather	: Cloudy 80s
Project Description	: Sparrows Point - Parcel B21		
Site Location	: Sparrows Point, MD		
ARM Representative	: M. Kedenburg		
Checked by	: M. Replogle, E.I.T.	Northing (US ft)	: 571173.37
Drilling Company	: Green Services, Inc.	Easting (US ft)	: 1460169.80
Driller	: Don Marchese		
Drilling Equipment	: Geoprobe 7822DT		

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	80	-	B21-060-SB-1	(0-4') SAND with GRAVEL, fine to medium, dense, slightly moist, dark brown to black, no plasticity, no cohesion	SW	
		6.2				
		12.2				
		13.5	B21-060-SB-4			
		0.4		(4-10') SLAG GRAVEL, coarse, pale gray, loose, moist to wet at 7' bgs, no plasticity, no cohesion	GP	Wet at 7' bgs
5	60	-				
		-				
		0.2				
		0.2				
		0.5				
10				End of boring		

Total Borehole Depth: 10' bgs.
Terminated due to water

ARM Group LLC
Engineers and Scientists

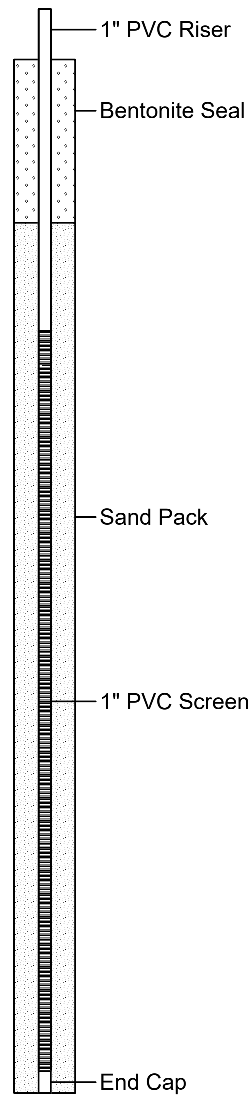
Boring ID: B22-033-SB/PZ

Client	: Tradepoint Atlantic
ARM Project No.	: 150300M-20-3
Project Description	: Sparrows Point - Parcel B22
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: M. Replogle, EIT
Drilling Company	: Green Services, Inc.
Driller	: A. Berenbrok-Niblett
Drilling Equipment	: Geoprobe 7782DT

Soil Boring Installation Date	: 5/24/2016
Piezometer Installation Date	: 5/25/2016
Casing/Riser/Screen Type	: PVC
Borehole Diameter	: 2.25"
Riser/Screen Diameter	: 1"
Northing (US ft)	: 570,370.05
Easting (US ft)	: 1,461,244.20
48-Hr DTW	: 4.41' TOC

No LNAPL or DNAPL detected at 0 or 48 hours

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	83	-	B22-033-SB-1	(0-4') SILT with fine GRAVEL, soft, dark yellowish brown, dry then wet at 2.5' bgs, non-plastic, non-cohesive	ML	
		0.9				
		2.2				Wet at 2.5' bgs
		0.7				
		3.5		(4-5') SILT with fine GRAVEL and coarse GRAVEL/WOOD FRAGMENTS, soft, dark brown, wet, non-plastic, non-cohesive	ML	
5	58	-		(5-9.5') SILT with coarse BRICK, GRAVEL-sized, soft, black, wet, non-plastic, non-cohesive	ML	
		-				Strong pungent odor with dark non-viscous liquid with sheen from 7-10' bgs
		-				
		-				Dark amber liquid down borehole
		-				
10				End of Boring		



Boring terminated at 9.5' bgs due to refusal, water and piezometer installation
TOC: Top of PVC casing
DTW: Depth to water
bgs: Below ground surface
AMSL: Above mean sea level

Riser Stickup: 2.69'
Riser: 0 - 2.5' bgs
Screen: 2.5 - 9.5' bgs [Slot Size: 0.010"]
Sand Pack: 1.5 - 9.5' bgs [Grain Size: WG #1]
Bentonite Seal: 0 - 1.5' bgs [Grain Size: 0-0.5' bgs granular, 0.5-1' bgs chips, 1-1.5' bgs granular]

ARM Group LLC
Engineers and Scientists

Boring ID: B22-034-SB/PZ

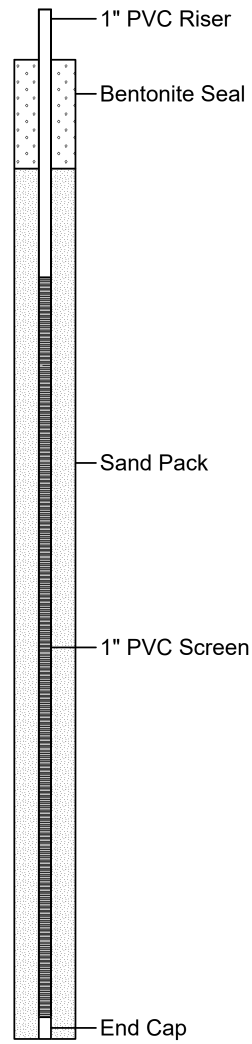
(page 1 of 1)

Client	: Tradepoint Atlantic
ARM Project No.	: 150300M-20-3
Project Description	: Sparrows Point - Parcel B22
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: M. Replogle, EIT
Drilling Company	: Green Services, Inc.
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7782DT

Soil Boring Installation Date	: 5/25/2016
Piezometer Installation Date	: 5/25/2016
Casing/Riser/Screen Type	: PVC
Borehole Diameter	: 2.25"
Riser/Screen Diameter	: 1"
Northing (US ft)	: 570,352.17
Easting (US ft)	: 1,461,250.85
48-Hr DTW	: 5.29' TOC

No LNAPL or DNAPL detected at 0 or 48 hours

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	57	-	B22-034-SB-1	(0-3') SILT with fine GRAVEL, loose, brown, dry, non-plastic, non-cohesive	ML	
		-				
		0.8				Wet at 2.5' bgs
		12.3		(3-5') GRAVELLY SILT, soft, brown, wet, low plasticity, cohesive	ML	
		2.1				
5	100	-		(5-9') SANDY CLAY with fine GRAVEL, very soft, brown to dark brown, wet, high plasticity, cohesive	CH	
		1.7				Strong odor with sheen from 7-10' bgs
		0.7				
		0.8				
				End of Boring		
10						



Boring terminated at 9' bgs due to refusal, water and piezometer installation
TOC: Top of PVC casing
DTW: Depth to water
bgs: Below ground surface
AMSL: Above mean sea level

Riser Stickup: 2.88'
Riser: 0 - 2' bgs
Screen: 2 - 9' bgs [Slot Size: 0.010"]
Sand Pack: 1 - 9' bgs [Grain Size: WG #1]
Bentonite Seal: 0 - 1' bgs [Grain Size: 0-0.5' bgs chips and 0.5-1' bgs granular bentonite]

ARM Group LLC
Engineers and Scientists

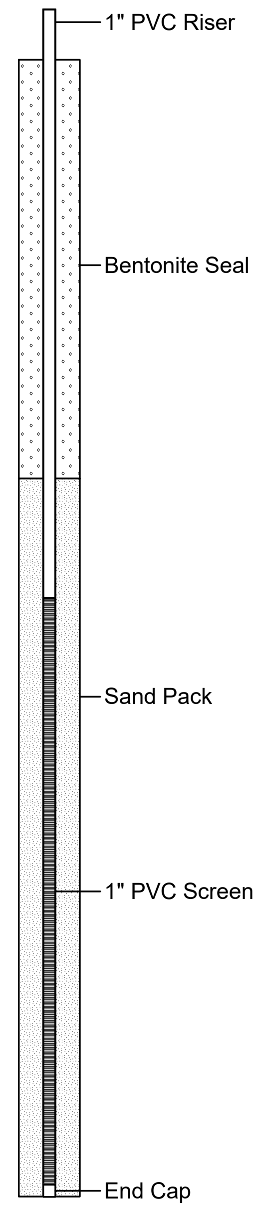
Boring ID: B22-067-SB/PZ

(page 1 of 1)

Client	: Tradepoint Atlantic
ARM Project No.	: 150300M-20-3
Project Description	: Sparrows Point - Parcel B22
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: M. Replogle, EIT
Drilling Company	: Green Services, Inc.
Driller	: A. Berenbrok-Niblett
Drilling Equipment	: Geoprobe 7782DT

Soil Boring Installation Date	: 5/20/2016
Piezometer Installation Date	: 5/20/2016
Casing/Riser/Screen Type	: PVC
Borehole Diameter	: 2.25"
Riser/Screen Diameter	: 1"
Northing (US ft)	: 570,698.50
Easting (US ft)	: 1,461,876.76
0-Hr DTW	: 19.23' TOC
48-Hr DTW	: 4.44' TOC
No LNAPL or DNAPL detected at 0 or 48 hours	

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	40	-	B22-067-SB-1	(0-4.5') SLAG, SAND and GRAVEL-sized, loose, gray, dry, non-plastic, non-cohesive	GP/SP	
		-				
		464				
		665				
		637				
5	100	-		(4.5-6') SLAG GRAVEL with SILT, loose, gray and yellowish brown, dry, non-plastic, non-cohesive	GP-GM	
		240	B22-067-SB-7	(6-6.5') SANDY GRAVEL, loose, black, very moist, non-plastic, non-cohesive	GP/SP	Thin, greasy amber product with strong odor from 6-6.5' bgs;
		587		(6.5-10') CLAY, firm to very firm, greenish gray then light yellowish brown and light olive brown from 7.5-10' bgs, dry, high plasticity, cohesive	CH	
		48.5				
		158	B22-067-SB-10			
10	100	-		(10-19') CLAY, very soft, yellowish brown, wet to very moist, high plasticity, cohesive	CH	
		-				Wet at 12' bgs
		-				
		-				
		-				
15						
19				End of Boring		
20						



Boring terminated at 19' bgs due to water and piezometer installation
TOC: Top of PVC casing
DTW: Depth to water
bgs: Below ground surface
AMSL: Above mean sea level

Riser Stickup: 1.69'
Riser: 0 - 9' bgs
Screen: 9 - 19' bgs [Slot Size: 0.010"]
Sand Pack: 7 - 19' bgs [Grain Size: WG #1]
Bentonite Seal: 0 - 7' bgs [Grain Size: 0-6.5' bgs chips and 6.5-7' bgs granular]

ARM Group LLC
Engineers and Scientists

Boring ID: B22-071-SB/ FM-005-PZS

(page 1 of 1)

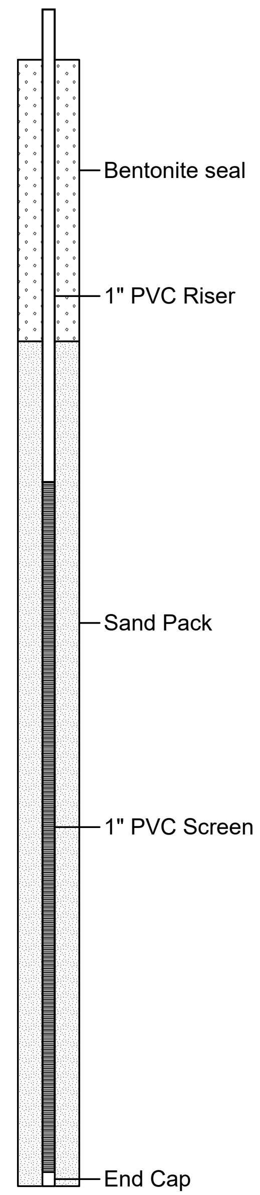
Client	: Tradepoint Atlantic
ARM Project No.	: 150300M-20-3
Project Description	: Sparrows Point - Parcel B22
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: M. Replogle, E.I.T.
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Soil Boring Installation Date	: 5/18/2016
Piezometer Installation Date	: 5/18/2016
Casing/Riser/Screen Type	: PVC
Borehole Diameter	: 2.25"
Riser/Screen Diameter	: 1"
Northing (US ft)	: 571,153.02
Easting (US ft)	: 1,460,687.93
0-Hr DTW	: 11.00' TOC
24-Hr DTW	: 11.00' TOC

No LNAPL or DNAPL detected at 0 or 24 hours

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B22-071-SB-1	(0-3') SILT, soft, brown, dry, non-plastic, non-cohesive	ML	
		1.6				
	80	2.4				
		2.9	B22-071-SB-4	(3-4') SILT, firm, yellowish brown, dry, low plasticity, cohesive	ML	
		0.6		(4-5') SLAG, GRAVEL and SAND-sized, loose, non-plastic, non-cohesive	GP/SP	Some white coating
5		-		(5-10') SLAG, GRAVEL, loose, gray to yellowish red, dry to wet, non-plastic, non-cohesive	GW	
		-				
	50	0.3				
		0.3				
		0.3				
10		-		(10-16') SLAG, GRAVEL and SAND-sized, loose, gray, wet, non-plastic, non-cohesive	GP/SP	Wet at 10' bgs
		-				
	27	-				
		0.0				
		0.0				Product present at 14.8' bgs, no odor noted, oily feel, brownish-red
15	50	0.0				

End of boring



Boring terminated due to refusal at 16' bgs and water
TOC: Top of PVC casing
DTW: Depth to water
bgs: Below ground surface
AMSL: Above mean sea level

Riser Stickup: 1.08'
Riser: 0 - 6' bgs
Screen: 6 - 16' bgs [Slot Size: 0.010"]
Sand Pack: 4 - 16' bgs [Grain Size: WG #1]
Bentonite Seal: 0 - 4' bgs [Grain Size: 0-0.5' bgs granular, 0.5-3.5' bgs chips, 3.5-4' bgs granular]

ARM Group LLC
Engineers and Scientists

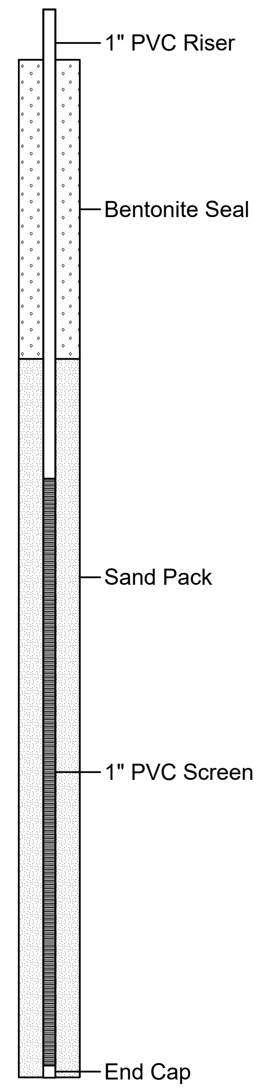
Boring ID: B22-106-SB/PZ

Client	: Tradepoint Atlantic
ARM Project No.	: 150300M-20-3
Project Description	: Sparrows Point - Parcel B22
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: M. Replogle, EIT
Drilling Company	: Green Services, Inc.
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7782DT

Soil Boring Installation Date	: 5/25/2016
Piezometer Installation Date	: 5/25/2016
Casing/Riser/Screen Type	: PVC
Borehole Diameter	: 2.25"
Riser/Screen Diameter	: 1"
Northing (US ft)	: 570,437.30
Easting (US ft)	: 1,461,400.00
48-Hr DTW	: 3.58' TOC

No LNAPL or DNAPL detected at 0 or 48 hours

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	80	-	B22-106-SB-1	(0-1') CONCRETE, loose, white, dry, non-plastic, non-cohesive	NA	
		77.1 6.7 1.6 0.4		(1-5') CLAY with trace SAND, very soft to firm, olive yellow, very moist to dry then very moist 7.5-9.8' bgs, high plasticity, cohesive	CH	
5	50	- - 5.6 1.1 1.1	B22-106-SB-8.5 B22-106-SB-10	(5-9.8') CLAY, firm to very firm, greenish gray then light yellowish brown and light olive brown from 7.5-10' bgs, dry, high plasticity, cohesive	CH	Wet at 10' bgs
10	10	- - - - -		(9.8-15') SAND, loose, black, wet, non-plastic, non-cohesive	SP	Sheen with strong odor 9.8-15' bgs Possible product 9.8-10' bgs
15	0	- -		(15-17') NO RECOVERY	-	
20				End of Boring		



Boring terminated at 17' bgs due to water and piezometer installation
TOC: Top of PVC casing
DTW: Depth to water
bgs: Below ground surface
AMSL: Above mean sea level

Riser Stickup: 3.46'
Riser: 0 - 7' bgs
Screen: 7 - 17' bgs [Slot Size: 0.010"]
Sand Pack: 5 - 17' bgs [Grain Size: WG #1]
Bentonite Seal: 0 - 5' bgs [Grain Size: 0-0.5' bgs chips and 0.5-5' bgs granular]

ARM Group LLC
Engineers and Scientists

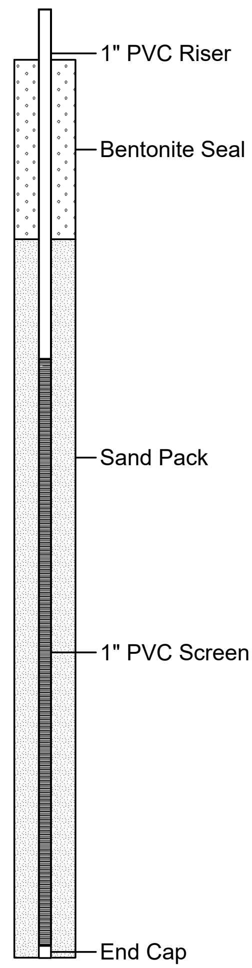
Boring ID: B22-111-SB/PZ

(page 1 of 1)

Client	: Tradepoint Atlantic
ARM Project No.	: 150300M-20-3
Project Description	: Sparrows Point - Parcel B22
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: M. Replogle, EIT
Drilling Company	: Green Services, Inc.
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7782DT

Soil Boring Installation Date	: 5/25/2016
Piezometer Installation Date	: 5/25/2016
Casing/Riser/Screen Type	: PVC
Borehole Diameter	: 2.25"
Riser/Screen Diameter	: 1"
Northing (US ft)	: 570,453.91
Easting (US ft)	: 1,461,528.70
48-Hr DTW	: 6.42' TOC
No LNAPL or DNAPL detected at 0 or 48 hours	

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	80	-	B22-111-SB-1	(0-2.5') SILTY CLAY, hard, brownish yellow, dry, medium plasticity, cohesive	CH	
		0.1				
		0.1		(2.5-5') CLAY, hard to very firm, brownish yellow, dry, high plasticity, cohesive	CH	
		0.1				
		0.1				
5	100	0.5		(5-8') CLAY with trace SAND, soft to very soft, pale olive and pale greenish gray, very moist, high plasticity, cohesive	CL	Very saturated clay 5-8' bgs
		6.2				Wet at 8' bgs
		9.1	B22-111-SB-8			
		2.5		(8-9.2') SLAG, GRAVEL-sized, loose, black, wet, non-plastic, non-cohesive	GP	Product with slight sheen and light to moderate odor from 8-9.2' bgs
		0.6		(9.2-10') CLAY with trace SAND, very firm, pale olive and pale greenish gray, dry, high plasticity, cohesive	CH	
10	100	-		(10-15') CLAY, very soft, light grayish olive, very moist, high plasticity, cohesive	CH	
		-				
		0.1				
		0.1				
		0.1				
15				End of Boring		
20						



Boring terminated at 15' bgs due to water and piezometer installation
TOC: Top of PVC casing
DTW: Depth to water
bgs: Below ground surface
AMSL: Above mean sea level

Riser Stickup: 3.17'
Riser: 0 - 5' bgs
Screen: 5 - 15' bgs [Slot Size: 0.010"]
Sand Pack: 3 - 15' bgs [Grain Size: WG #1]
Bentonite Seal: 0 - 3' bgs [Grain Size: 0-0.5' bgs granular, 0.5-2.5' bgs chips, and 2.5-3' bgs granular]

ARM Group LLC
Engineers and Scientists

Boring ID: B22-116-SB

Client	: Tradepoint Atlantic		Date	: 5/19/2016
ARM Project No.	: 150300M-20-3		Weather	: 60s, Sunny
Project Description	: Sparrows Point - Parcel B22			
Site Location	: Sparrows Point, MD			
ARM Representative	: C. Burger, P.G.			
Checked by	: P. Vogel, P.G.		Northing (US ft)	: 571,235.95
Drilling Company	: Green Services, Inc		Easting (US ft)	: 1,461,392.69
Driller	: Don Marchese			
Drilling Equipment	: Geoprobe 7822DT			

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	80	1.5	B22-116-SB-1	(0-5') Slag GRAVEL with SILT, gray/brown, dry, non cohesive, non plastic	GM	
		5.3				
		13.2				
		76.5				
		108.2				Wet at 4.5' bgs (perched) Black staining and sheen
5	70	50.1		(5-8') Slag GRAVEL with SILT, gray, wet, non cohesive, non plastic.	GM	
		23.8				Wet at 7' bgs
		67.4	B22-116-SB-8.5			
				(8-10') CLAY with GRAVEL, gray, cohesive, low plasticity	CL	Some black staining at 8' and 9.5' bgs
		46.4				Pungent odor
		1.4				Boring terminated at 10' bgs due to water
10						

Total Borehole Depth: 10' bgs.

ARM Group LLC
Engineers and Scientists

Boring ID: B22-119-SB/PZ

(page 1 of 1)

Client	: Tradepoint Atlantic
ARM Project No.	: 150300M-20-3
Project Description	: Sparrows Point - Parcel B22
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: M. Replogle, EIT
Drilling Company	: Green Services, Inc.
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7782DT

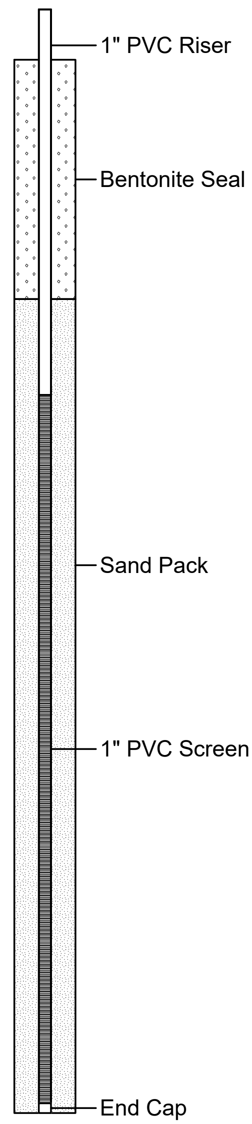
Soil Boring Installation Date	: 5/19/2016
Piezometer Installation Date	: 5/19/2016
Casing/Riser/Screen Type	: PVC
Borehole Diameter	: 2.25"
Riser/Screen Diameter	: 1"
Northing (US ft)	: 571,293.47
Easting (US ft)	: 1,461,187.62
0-Hr DTW	: 11.82' TOC
48-Hr DTW	: 10.93' TOC

No LNAPL or DNAPL detected at 0 or 48 hours

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval
0-1	70	-	B22-119-SB-1
1-2	70	-	
2-3	70	1.0	
3-4	70	1.6	
4-5	70	6.2	
5-6	100	17.4	
6-7	100	49.1	
7-8	100	98.8	
8-9	100	123	B22-119-SB-9
9-10	100	115	B22-119-SB-10
10-11	50	-	
11-12	50	-	
12-13	50	33.3	
13-14	50	50.3	
14-15	50	6.3	
15-16	100	0.1	
16-17	100	0.0	
17-18	100	0.0	
18-19	100	0.0	
19-20	100	0.0	
20-21	100	-	
21-22	100	-	

DESCRIPTION	USCS	REMARKS
(0-0.5') TOPSOIL with small roots, soft, brown, dry, non-plastic, non-cohesive	OL	
(0.5-2.5') SILT, loose, brown, dry, non-plastic, non-cohesive	ML	
(2.5-2.7') BRICK, loose, yellow, dry, non-plastic, non-cohesive	NA	
(2.7-4.1') SILT with trace SAND, loose, dark olive brown, dry, non-plastic, cohesive	ML	
(4.1-9') CLAY, firm grading to soft, light olive brown to olive, moist to dry, high plasticity, cohesive, few slag gravel and wood 7.5-9' bgs	CH	Wood fragments and black streaks
(9-14.8') CLAY, soft, olive, moist to dry, high plasticity, cohesive	CH	Product present (9-10' bgs), black, viscous, sticky; Wet at 14.8' bgs
(14.8-15') CLAYEY SAND, loose, olive, wet, non-plastic, non-cohesive	SC	
(15-18') SANDY CLAY with GRAVEL, very soft, olive, wet, high plasticity, cohesive	CH	Highly saturated clay from 15-18' bgs
(18-22') CLAY, trace SAND, soft, olive to pale olive, very moist, high plasticity, cohesive	CH	

End of Boring



Boring terminated at 22' bgs due to water and piezometer installation
TOC: Top of PVC casing
DTW: Depth to water
bgs: Below ground surface
AMSL: Above mean sea level

Riser Stickup: 2.63'
Riser: 0 - 7' bgs
Screen: 7 - 22' bgs [Slot Size: 0.010"]
Sand Pack: 5 - 22' bgs [Grain Size: WG #1]
Bentonite Seal: 0 - 5' bgs [Grain Size: 0-0.5' bgs granular, 0.5-4.5' bgs chips, and 4.5-5' bgs granular]

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Boring ID: B22-119-SB/PZ

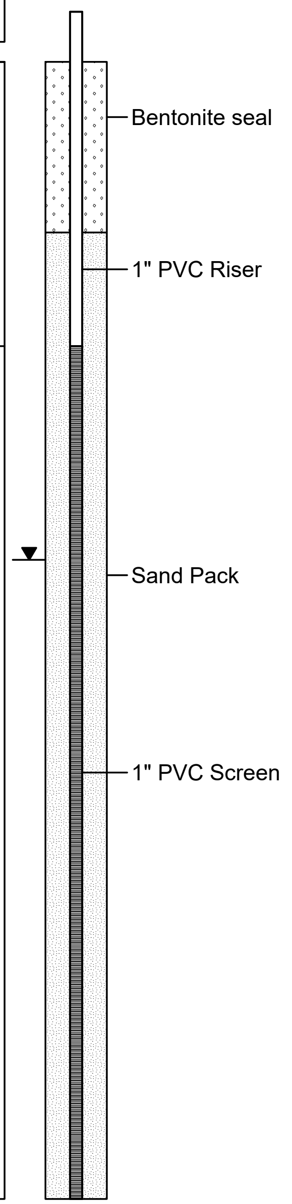
(Reinstalled for PORI Characterization)

(page 1 of 1)

Client	: Tradepoint Atlantic
ARM Project No.	: 150300M-20-10
Project Description	: Sparrows Point - Parcel B22
Site Location	: Sparrows Point, MD
ARM Representative	: M. Kedenburg, G.I.T.
Checked by	: M. Replogle, E.I.T.
Drilling Company	: Allied Drilling Co.
Driller	: Ryan Sites
Drilling Equipment	: Geoprobe 7822DT

Soil Boring Installation Date	: 5/8/18
Piezometer Installation Date	: 5/8/18
Casing/Riser/Screen Type	: PVC
Borehole Diameter	: 2.25"
Riser/Screen Diameter	: 1"
Northing (US ft)	: 571288.15
Easting (US ft)	: 1461171.37
0-Hr DTW	: 17.11' TOC
48-Hr DTW	: 11.62' TOC
No LNAPL or DNAPL detected at 0 or 48 hours	

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-		(0-5') SAND with GRAVEL, medium to dense, dark brown to black, no plasticity, no cohesion		
		-				
	60	0.7			SW	Trace SLAG COBBLES throughout
		0.5				
		1.3	B22-119-SB-5			
5		-		(5-20') CLAY with SAND and GRAVEL, pale brown to bluish gray, firm, medium plasticity, cohesive, slightly moist to wet at 15' bgs		Wood at 5.5' bgs
		42.5				
	90	180.9				Oil throughout from 7-10' bgs, with prominent oil at 8' bgs and 9' bgs
		237.6				SLAG GRAVEL lens at 7.5' bgs
		18.5				
10		-				
		10.2				
	100	27.8			CL	
		1.4				
		1.5	B22-119-SB-15			
15		-				Wet at 15' bgs
		-				
	90	-				
		-				
		-				Trace NAPL at 19' bgs
20				End of boring		



Boring terminated at 20' bgs due to water and piezometer installation
TOC: Top of PVC casing
DTW: Depth to water
bgs: Below ground surface
AMSL: Above mean sea level

Riser Stickup: 2.86'
Riser: 0 - 5' bgs
Screen: 5 - 20' bgs [Slot Size: 0.010"]
Sand Pack: 3 - 20' bgs [Grain Size: WG #2]
Bentonite Seal: 0 - 3' bgs [Grain Size: 3/8" chips]

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Boring ID: B22-144-SB

(page 1 of 1)

Client	: Tradepoint Atlantic	Date	: 5/20/2016
ARM Project No.	: 150300M-20-3	Weather	: 70s, Sunny
Project Description	: Sparrows Point - Parcel B22		
Site Location	: Sparrows Point, MD		
ARM Representative	: L. Perrin		
Checked by	: P. Vogel, P.G.	Northing (US ft)	: 570,836.69
Drilling Company	: Green Services, Inc	Easting (US ft)	: 1,461,848.29
Driller	: Ali Berenbrok - Tim Niblett		
Drilling Equipment	: Geoprobe 7822DT		

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	100	26.1	B22-144-SB-1	(0-1') SILT, hard, brittle, light yellowish brown to dark brown, dry, non plastic, non cohesive	ML	
		4.4		(1-1.3') SILT, soft, white, dry, non plastic, non cohesive	ML	
				(1.3-1.8') Sandy GRAVEL, loose,dark yellowish brown to brownish yellow, dry, non plastic, non cohesive	GW	
		5.5		(1.8-5') CLAY, soft to very firm, yellowish brown and grayish green, moist to dry, high plasticity, cohesive	CH	
		4.3				
		0.4				
5	100	2.1		(5-8') CLAY, soft to firm, light olive brown with yellowish brown mottling, moist to very moist, high plasticity, cohesive	CH	Iron staining
		7.5	B22-144-SB-7			
		8.7				
		0.34		(8-10') CLAY, very soft, dark greenish gray and light olive, wet, high plasticity, cohesive	CH	Wet at 8' bgs
						Saturated clay, wet sheen
		1.5				Boring terminated at 10' bgs due to water
10						

Total Borehole Depth: 10' bgs.

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Client	: Tradepoint Atlantic	Date	: 5/18/2016
ARM Project No.	: 150300M-20-3	Weather	: 60s, Cloudy
Project Description	: Sparrows Point - Parcel B22		
Site Location	: Sparrows Point, MD		
ARM Representative	: C. Burger, P.G.		
Checked by	: P. Vogel, P.G.	Northing (US ft)	: 571,064.79
Drilling Company	: Green Services, Inc	Easting (US ft)	: 1,461,082.72
Driller	: Don Marchese		
Drilling Equipment	: Geoprobe 7822DT		

Boring ID: B22-148-SB

(page 1 of 1)

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	60	6.4	B22-148-SB-1	(0-4') Slag GRAVEL with SILT and concrete/brick material, black, dry, non cohesive	GM	
		24.5				
		67.9				
		17.2				
		0.2		(4-6') Clayey GRAVEL, stiff, olive, dry, cohesive, low plasticity	GC	
5	100	2.4	B22-148-SB-6			Wet at 5.5' bgs (perched) Black staining and odor
		2.6		(6-10') Gravely CLAY, olive to brown, dry, stiff, cohesive, medium plasticity, orangish brown mottling	CL	
		1.3				
		20.8				
		10.5	B22-148-SB-10			
10	70	-		(10-15') Silty CLAY with GRAVEL, olive, soft, wet, cohesive, medium to high plasticity, orangish brown and dark gray mottling	CL	
		-				Wet at 11.5' bgs
		-				
		-				
		-				Boring terminated at 15' bgs due to water
15						

Total Borehole Depth: 15' bgs.

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Boring ID: B22-152-SB

Client	: Tradepoint Atlantic	Date	: 5/19/2016
ARM Project No.	: 150300M-20-3	Weather	: 50s, Partly Sunny
Project Description	: Sparrows Point - Parcel B22		
Site Location	: Sparrows Point, MD		
ARM Representative	: C. Burger, P.G.		
Checked by	: P. Vogel, P.G.	Northing (US ft)	: 571,252.89
Drilling Company	: Green Services, Inc	Easting (US ft)	: 1,460,918.27
Driller	: Don Marchese		
Drilling Equipment	: Geoprobe 7822DT		

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	90	3.8	B22-152-SB-1	(0-1') Silty CLAY, brown, dry, high plasticity, cohesive	CH	
		31.8		(1-5') Slag GRAVEL with SILT, SAND, and CLAY, dark brown to black, dry, low plasticity, cohesive	GC	
		51.5				
		59.4				
		78.8				
5	90	477	B22-152-SB-6	(5-9.6') Slag GRAVEL with SILT, SAND, and tan sandstone and brick, dark gray to black, dry from 5-9', non cohesive	GM	Strong odors from 5-10' bgs
		398				
		394				
		400				
		173				Wet at 9' bgs Sheen at 9' bgs
				(9.6-10') CLAY, olive, wet, cohesive, medium plasticity, some light brown mottling	CL	Boring terminated at 10' bgs due to water
10						

Total Borehole Depth: 10' bgs.

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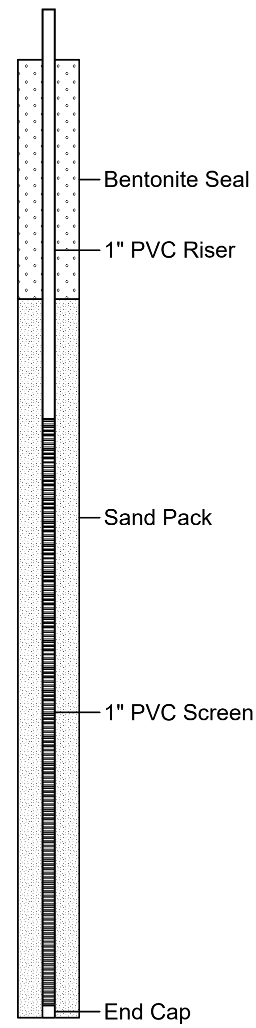
Boring ID: B22-153-SB/PZ

Client	: Tradepoint Atlantic
ARM Project No.	: 150300M-20-3
Project Description	: Sparrows Point - Parcel B22
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: M. Replogle, E.I.T.
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Soil Boring Installation Date	: 5/19/2016
Piezometer Installation Date	: 5/19/2016
Casing/Riser/Screen Type	: PVC
Borehole Diameter	: 2.25"
Riser/Screen Diameter	: 1"
Northing (US ft)	: 571,347.23
Easting (US ft)	: 1,460,907.74
0-Hr DTW	: 11.52' TOC
48-Hr DTW	: 11.39' TOC
No LNAPL or DNAPL at 0 or 48 hours	

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	
0	100	9.1	B22-153-SB-1	(0-0.3') ORGANIC SILTY CLAY, soft, brown, moist, low plasticity to medium plasticity, cohesive	OL	
		152		(0.3-1.3') CLAY, soft, strong brown, moist, high plasticity, cohesive	CH	
		458		(1.3-2.8') GRAVELLY SAND, loose, black grading to dark olive brown, dry, non-plastic, non-cohesive	SP	Evidence of contamination
		941	B22-153-SB-4	(2.8-3') CLAY, soft, strong brown, dry to moist, high plasticity, cohesive	CH	
		451		(3-5') SILT with GRAVEL, soft, olive brown, dry, non-plastic, non-cohesive	ML	
5	100	40.4		(5-9') SAND with GRAVEL, loose, dark brown, dry, non-plastic, non-cohesive	SP	
		23.4				
		11.8				
		10.7				
		9.7		(9-10') GRAVEL with SAND, loose, black, wet, non-plastic, non-cohesive	GW	Wet at 9' bgs
10	20	-		(10-14') NO RECOVERY		
		-				
		-				
		-				
		0.0		(14-15') SAND with GRAVEL, loose, dark red, wet, non-plastic, non-cohesive	SP	
15	100	0.0		(15-16') GRAVEL with SAND, loose, very dark brown, wet, non-plastic, non-cohesive	GW	
				End of boring		
20						



Boring terminated at 16' bgs due to water and piezometer installation
TOC: Top of PVC casing
DTW: Depth to water
bgs: Below ground surface
AMSL: Above mean sea level

Riser Stickup: 2.67'
Riser: 0 - 6' bgs
Screen: 6 - 16' bgs [Slot Size: 0.010"]
Sand Pack: 4 - 16' bgs [Grain Size: WG #1]
Bentonite Seal: 0 - 4' bgs [Grain Size: 0-0.5' bgs granular, 0.5-3.5' bgs chips, 3.5-4' bgs granular]

APPENDIX C

Construction Worker Soil Screening Levels
Maximum Allowable Work Day Exposure
Calculation Spreadsheet - Sub-Parcel B22-2

Description	Variable	Value
Days worked per week	DW	5
Exposure duration (yr)	ED	1
Hours worked per day	ET	8
A/constant (unitless) - particulate emission factor	Aconst	12.9351
B/constant (unitless) - particulate emission factor	Bconst	5.7383
C/constant (unitless) - particulate emission factor	Cconst	71.7711
Dispersion correction factor (unitless)	FD	0.185
Days per year with at least .01" precipitation	P	130
Target hazard quotient (unitless)	THQ	1
Body weight (kg)	BW	80
Averaging time - noncancer (yr)	ATnc	1
Soil ingestion rate (mg/d)	IR	330
Skin-soil adherence factor (mg/cm2)	AF	0.3
Skin surface exposed (cm2)	SA	3300
Event frequency (ev/day)	EV	1
Target cancer risk (unitless)	TR	01E-06
Averaging time - cancer (yr)	ATc	70
A/constant (unitless) - volatilization	Aconstv	2.4538
B/constant (unitless) - volatilization	Bconstv	17.566
C/constant (unitless) - volatilization	Cconstv	189.0426
Dry soil bulk density (kg/L)	Pb	1.5
Average source depth (m)	ds	3
Soil particle density (g/cm3)	Ps	2.65
Total soil porosity	Lpore/Lsoil	0.43
Air-filled soil porosity	Lair/Lsoil	0.28

Construction Worker Soil Screening Levels
Maximum Allowable Work Day Exposure
Calculation Spreadsheet - Sub-Parcel B22-2

Area of site (ac)	Ac	45.0
Overall duration of construction (wk/yr)	EW	5
Exposure frequency (day/yr)	EF	25
Cars per day	Ca	5
Tons per car	CaT	2
Trucks per day	Tru	5
Tons per truck	TrT	20
Mean vehicle weight (tons)	w	11
Derivation of dispersion factor - particulate emission factor (g/m2-s per kg/m3)	Q/Csr	13.6
Overall duration of construction (hr)	tc	840
Overall duration of traffic (s)	Tt	720,000
Surface area (m2)	AR	182,109
Length (m)	LR	427
Distance traveled (km)	ΣVKT	107
Particulate emission factor (m3/kg)	PEFsc	150,374,973
Derivation of dispersion factor - volatilization (g/m2-s per kg/m3)	Q/Csa	6.68
Total time of construction (s)	Tcv	720,000

→ Site-Wide EU

Input
Calculation

Chemical	RfD & RfC Sources	^Ingestion SF (mg/kg-day)$^{-1}$	^Inhalation Unit Risk (ug/m^3)$^{-1}$	^Subchronic RfD (mg/kg-day)	^Subchronic RfC (mg/m^3)	^GIABS	Dermally Adjusted RfD (mg/kg-day)	^ABS	^RBA	*Dia	*Diw	*Henry's Law Constant (unitless)	*Kd	*Koc	DA	Volatilization Factor - Unlimited Reservoir (m^3/kg)	Carcinogenic Ingestion/ Dermal SL (SLing/der)	Carcinogenic Inhalation SL (SLinh)	Carcinogenic SL (mg/kg)	Non-Carcinogenic Ingestion/ Dermal SL (SLing/der)	Non-Carcinogenic Inhalation SL (SLinh)	Non-Carcinogenic SL (mg/kg)
Arsenic, Inorganic	I/C	1.50E+00	4.30E-03	3.00E-04	1.50E-05	1	3.00E-04	0.03	0.6			-	2.90E+01				152	107,221	151	974	98,796	965
Chromium(VI)	A/C/I	5.00E-01	8.40E-02	5.00E-03	3.00E-04	0.025	1.25E-04	0.01	1			-	1.90E+01				225	5,489	216	8,044	1,975,927	8,011
Cobalt	P	-	9.00E-03	3.00E-03	2.00E-05	1	3.00E-03	0.01	1			-	4.50E+01					51,228	51,228	10,309	131,728	9,561
Iron	P	-	-	7.00E-01	-	1	7.00E-01	0.01	1			-	2.50E+01							2,405,413		2,405,413
Manganese (Non-diet)	I	-	-	2.40E-02	5.00E-05	0.04	9.60E-04	0.01	1			-	6.50E+01							48,540	329,321	42,305
Nickel Soluble Salts	A/C/I	-	2.60E-04	2.00E-02	2.00E-04	0.04	8.00E-04	0.01	1			-	6.50E+01					1,773,268	1,773,268	40,450	1,317,285	39,245
PCB Total	I	2.00E+00	5.71E-04	-	-	1		0.14	1	2.40E-02	6.30E-06	1.70E-02	4.68E+02	7.80E+04	4.66E-08	8.38E+3	87.2	45.0	29.7			
Aroclor 1254	A/I	2.00E+00	5.71E-04	3.00E-05	-	1	3.00E-05	0.14	1	2.40E-02	6.10E-06	1.16E-02	7.80E+02	1.30E+05	1.91E-08	1.31E+4	87.2	70.2	NE	74.8		74.8
Thallium (Soluble Salts)	P	-	-	4.00E-05	-	1	4.00E-05	0.01	1			-	7.10E+01							137		137
Vanadium and Compounds	A	-	-	1.00E-02	1.00E-04	0.026	2.60E-04	0.01	1			-	1.00E+03							16,433	658,642	16,033
Benz[a]anthracene	I	1.00E-01	6.00E-05	-	-	1		0.13	1	2.60E-02	6.70E-06	4.91E-04	1.08E+03	1.80E+05	6.71E-10	6.98E+4	1,782	3,567	1,189			
Benzo[a]pyrene	I	1.00E+00	6.00E-04	3.00E-04	2.00E-06	1	3.00E-04	0.13	1	4.80E-02	5.60E-06	1.87E-05	3.54E+03	5.90E+05	2.37E-11	3.72E+5	178	1,896	163	764	32.5	31.2
Benzo[b]fluoranthene	I	1.00E-01	6.00E-05	-	-	1		0.13	1	4.80E-02	5.60E-06	2.69E-05	3.60E+03	6.00E+05	2.91E-11	3.35E+5	1,782	17,097	1,614			
Dibenz[a,h]anthracene	I	1.00E+00	6.00E-04	-	-	1		0.13	1	4.50E-02	5.20E-06	5.76E-06	1.14E+04	1.90E+06	4.13E-12	8.90E+5	178	768,416	178			
Indeno[1,2,3-c,d]pyrene	I	1.00E-01	6.00E-05	-	-	1		0.13	1	4.50E-02	5.20E-06	1.42E-05	1.20E+04	2.00E+06	5.62E-12	7.64E+5	1,782	38,821	1,704			
Naphthalene	A/C/I	1.20E-01	3.40E-05	2.00E-02	3.00E-03	1	2.00E-02	0.13	1	6.00E-02	8.40E-06	1.80E-02	9.00E+00	1.50E+03	6.35E-06	7.18E+2	1,485	64.8	62.1	50,927	94.4	94.2

*chemical specific parameters found in Chemical Specific Parameters Spreadsheet at https://www.epa.gov/risk/regional-screening-levels-rsls

^chemical specific parameters found in Unpaved Road Traffic calculator at https://epa-prgs.ornl.gov/cgi-bin/chemicals/csl_search

I: chemical specific parameters found in the IRIS at https://www.epa.gov/iris

C: chemical specific parameters found in Cal EPA at https://www.dtsc.ca.gov/AssessingRisk

A: chemical specific parameters found in Agency for Toxic Substances and Disease Registry Minimal Risk Levels (MRLs) at https://www.atsdr.cdc.gov/mrls/pdfs/atsdr_mrls.pdf

P: chemical specific parameters found in the Database of EPA PPRTVs at https://hhpprtv.ornl.gov/quickview/pprtv.php

NE = Not Evaluated

APPENDIX D

Sparrows Point Development - PPE Standard Operational Procedure, Revision 3

Planning, Tracking/Supervision, Enforcement, and Documentation

Planning

- Response and Development Work Plan (RDWP) for each individual redevelopment sub-parcel identifies and documents site conditions.
- RDWP is reviewed and approved by regulators.
- Contractor HASP to address site-specific conditions and PPE requirements:
    - Contractor H&S professional to sign-off on PPE requirements for site workers;
    - Job Safety Analysis (JSA) to be performed for ground intrusive work.
- Project Environmental Professional (EP) assigned to each construction project – monitors project during environmentally sensitive project phases and is available to construction contractor on an as needed basis. EP responsibilities include the following:
    - Dust monitoring
    - Routine ground intrusive breathing space air monitoring
    - Soil tracking
    - Water handling oversight
    - Ground intrusive work observation
    - Notification for unexpected conditions
- Pre-construction meeting identifies EP roles and responsibilities and reviews site conditions.
- Contractor to perform job-site HazCom. HazCom to be addressed in Contractor HASP and include:
    - PPE requirements,
    - Exposure time limits,
    - Identification of chemicals of concern and potential effects of over-exposure (adverse reactions),
    - Methods and routes of potential exposure.
- All personnel that will be performing ground intrusive work within impacted soils shall sign-off on HazCom.
- If, based on a thorough review of Site conditions, it is expected that construction workers will have the potential to encounter materials considered hazardous waste under RCRA or DOT regulations, HAZWOPER-trained personnel will be utilized.

Tracking/Supervision

- Contractor to record any day that there is ground intrusive work and confirm that proper PPE is being worn.
- EP will note ground intrusive work on daily work sheets and perform at least one spot check per day.
- EP will log on daily work sheets PPE compliance for all intrusive work areas at least once per day.

- EP to take example photos of Exclusion Zones/Contamination Reduction Zones periodically.

Work Zones Delineation

- Exclusion Zone – The Exclusion Zones will include the areas proposed for excavation or with active trenches, excavations, or ground intrusive work, at a minimum. Personnel working within the exclusion zone will be required to wear Modified Level D PPE as described in this SOP. EP to take example photos of Exclusion Zones/Contamination Reduction Zones periodically. The Exclusion Zones will be identified each work day.
- Contamination Reduction Zone – This work zone is located outside of the exclusion zone, but inside of the limits of development (LOD). The Contamination Reduction Zone will be located adjacent to the Exclusion Zone, and all personal decontamination including removal of all disposable PPE/removal of soil from boots will be completed in the Contamination Reduction Zone.

Documentation

- Contractor HASP and HazCom.
- Contractor ground intrusive tracking record.
- HASP and HazCom sign-in sheets.
- EP pre-con memos.
- EP daily work sheets.
- Records documenting intrusive work and proper PPE use to be provided in completion report.

Enforcement

- Non-compliance of PPE requirements will result in disciplinary action up to and including prohibition from working on Sparrows Point.

Unknown and/or Unexpected Conditions

If unknown and/or unexpected conditions are encountered during the project that the EP determines to have a reasonable potential to significantly impact construction worker health and safety, the following will be initiated:

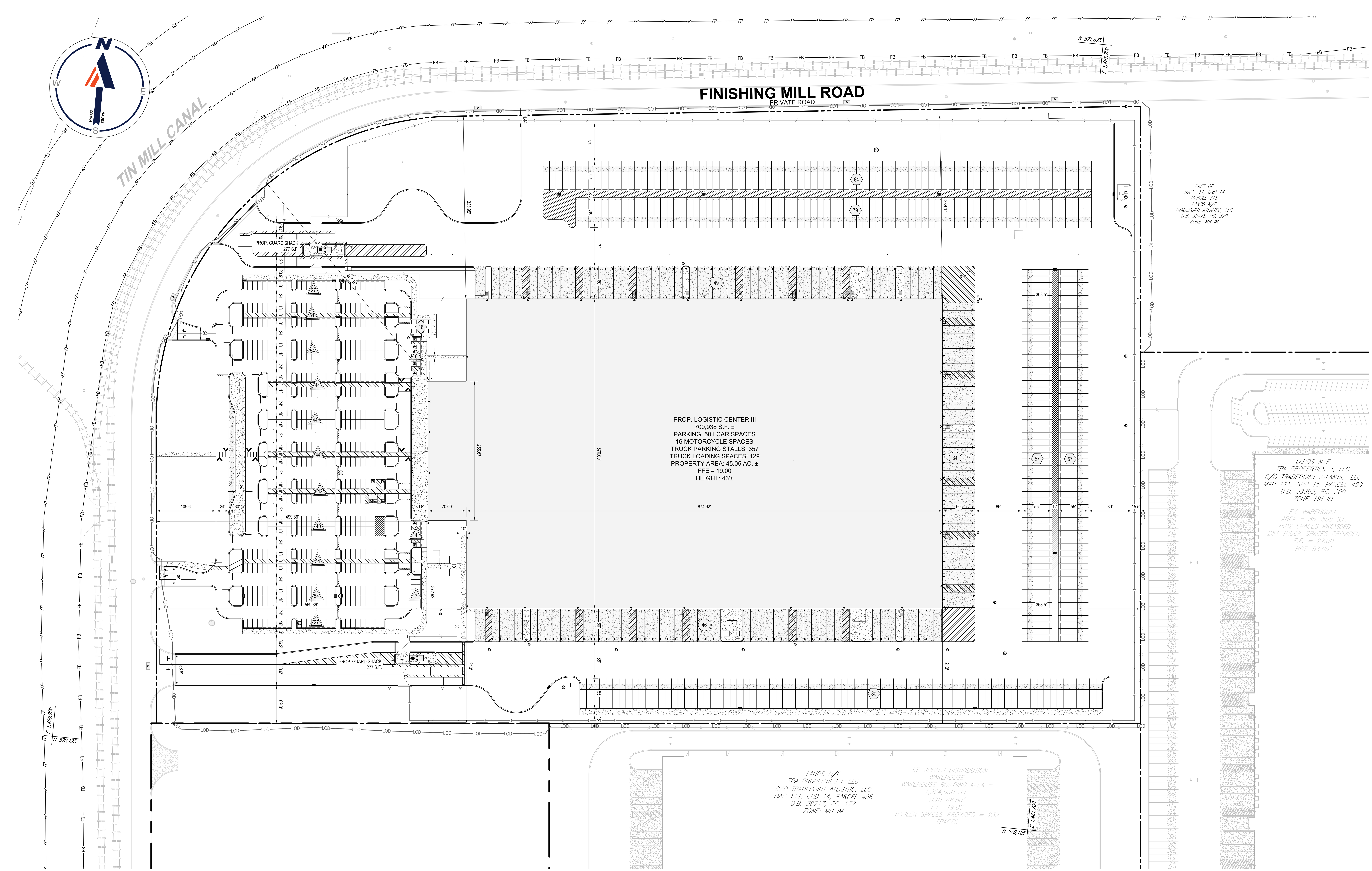
1. Job stoppage,
2. TPA and MDE notification,
3. Re-assessment of conditions.

Work will not continue until EP has cleared the area. If hazardous waste is identified, a HAZWOPER contractor will be brought in to address. The approved contingency plan will be implemented, where appropriate.

Modified Level D PPE

Modified Level D PPE will include, at a minimum, overalls such as polyethylene-coated Tyvek or clean washable cloth overalls, latex (or similar) disposable gloves (when working in wet/chemical surroundings) or work gloves, steel-toe/steel-shank high ankle work boots with taped chemical-protective over-boots (as necessary), dust mask, hard hat, safety glasses with side shields, and hearing protection (as necessary). If chemical-protective over-boots create increased slip/trip/fall hazardous, then standard leather or rubber work boots could be used, but visible soils from the sides and bottoms of the boots must be removed upon exiting the Exclusion Zone.

APPENDIX E



LEGEND

- CONCRETE SIDEWALK
- STANDARD DUTY ASPHALT PAVEMENT
- HEAVY DUTY CONCRETE PAVEMENT

PARKING LEGEND

- EMPLOYEE CAR PARKING
- EMPLOYEE MOTORCYCLE PARKING
- TRUCK LOADING SPACE
- TRUCK PARKING SPACE

BOHLER

SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	10/27/20	REVISED PER UPDATED LAYOUT	RMS / AGS

Know what's below. Call before you dig.

ALWAYS CALL 811

It's fast. It's free. It's the law.

NOT APPROVED FOR CONSTRUCTION

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.:	MD16206630
DRAWN BY:	ISL/RMS
CHECKED BY:	MJG
DATE:	10/21/2020
CAD I.D.:	MD16206630-SPP-1

PROJECT:

PRELIMINARY PLAN

FOR

TRADEPOINT ATLANTIC

LOGISTICS CENTER III

1701 FINISHING MILL ROAD
BALTIMORE, MD 21219
TM 111, GRID 14, PARCEL 318
ELECTION DISTRICT 15
COUNCILMANIC DISTRICT 7
BALTIMORE COUNTY

BOHLER
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

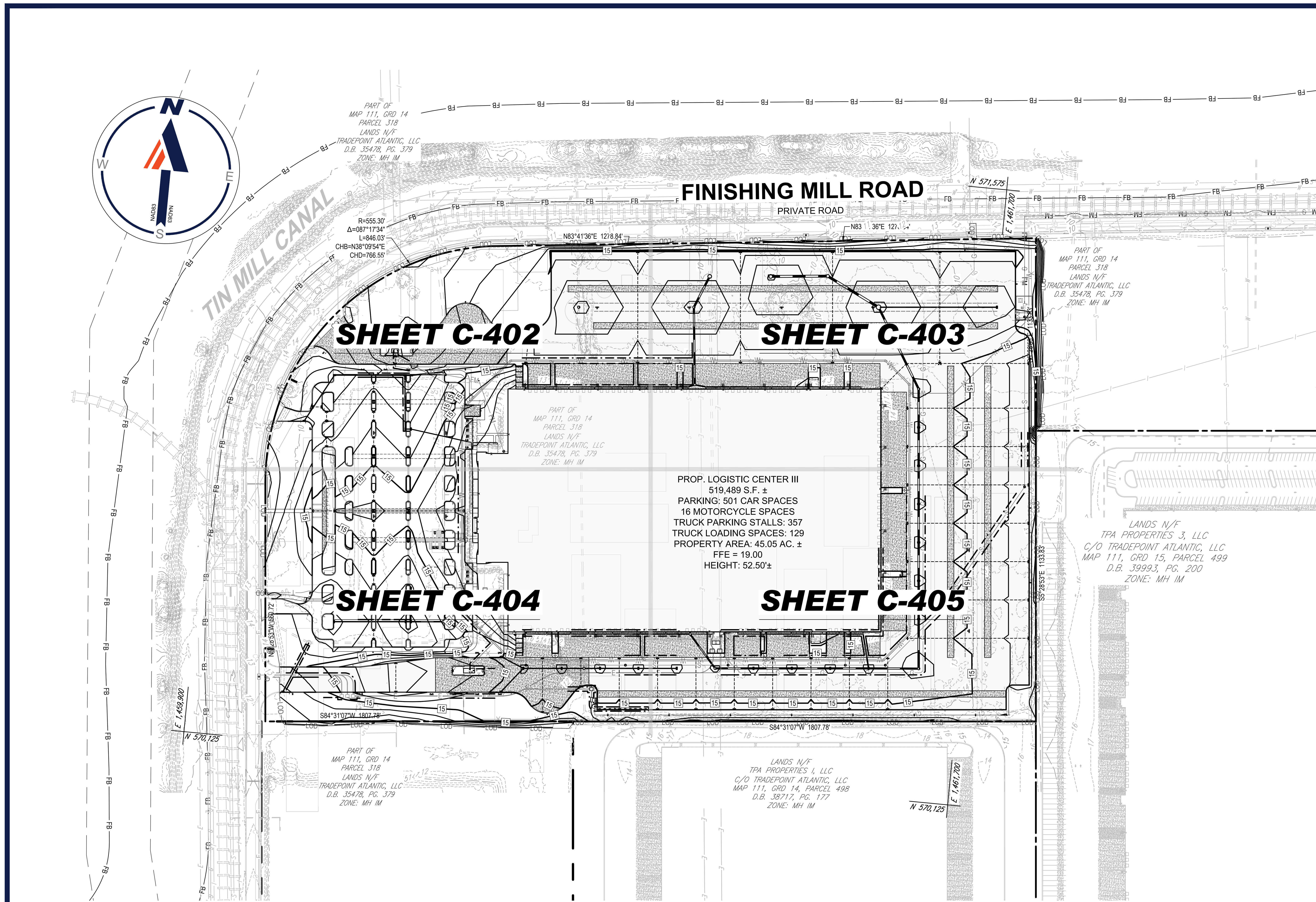
SHEET TITLE:

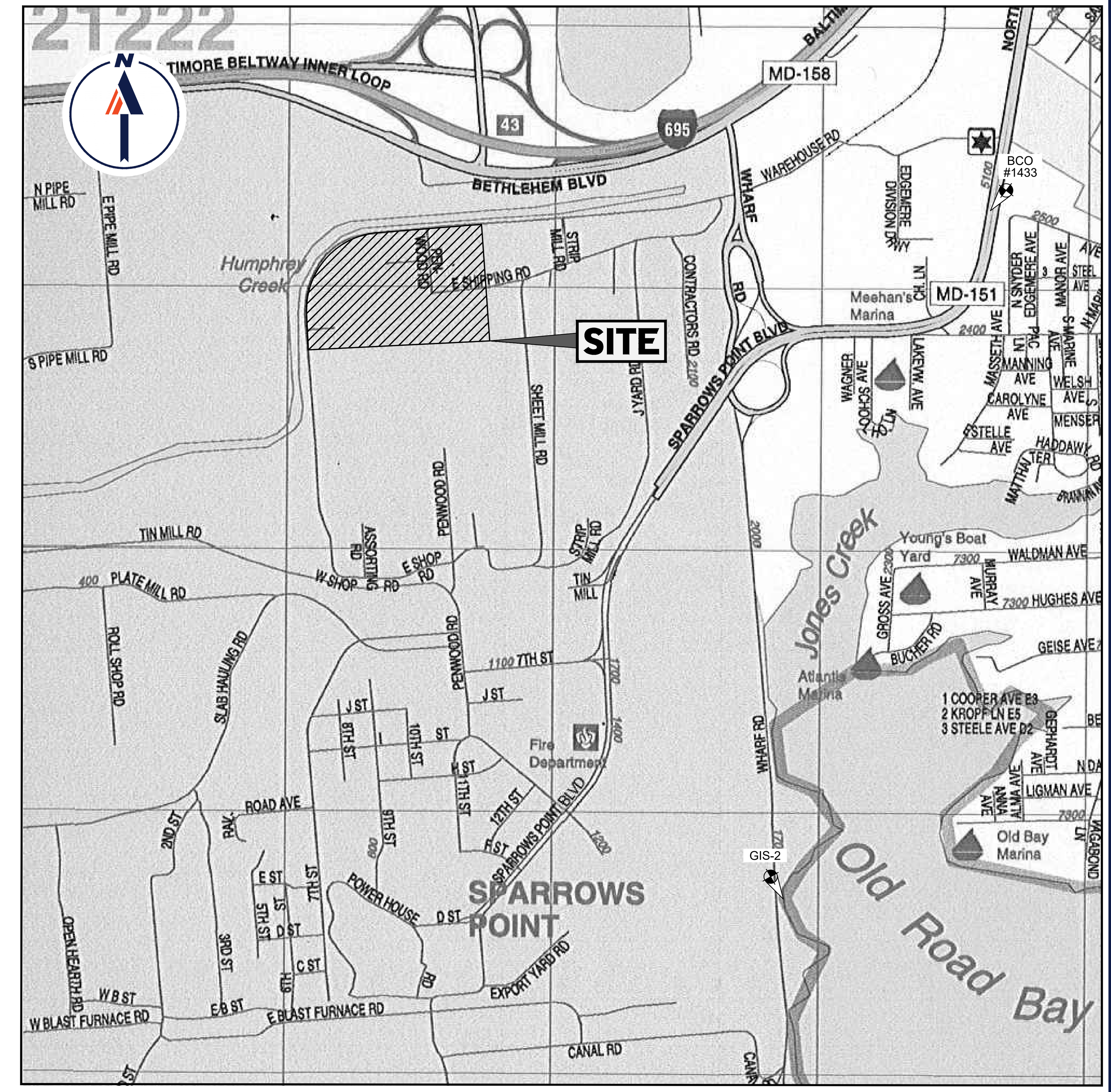
SITE PLAN

SHEET NUMBER:

C-301

REVISION 1 - 10/27/20





LOCATION MAP

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PERMIT USE NO. 20602153-5
SCALE: 1"=1000'

GENERAL GRADING NOTES

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL CONSTRUCTION CONTRACT DOCUMENTS INCLUDING, BUT NOT LIMITED TO, ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE INITIATION AND COMMENCEMENT OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT AND/OR DISCREPANCY BETWEEN THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR THE RELATIVE OR APPLICABLE CODES, REGULATIONS, LAWS, RULES, STATUTES AND/OR ORDINANCES, IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD, IN WRITING, OF SAID CONFLICT AND/OR DISCREPANCY PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR'S FAILURE TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE CONTRACTOR'S FULL AND COMPLETE ACCEPTANCE OF ALL RESPONSIBILITY TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS, LAWS, STATUTES, ORDINANCES AND CODES AND, FURTHER, CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH SAME.
2. SITE GRADING MUST BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT REFERENCED IN THIS PLAN SET. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND REPLACING UNSUITABLE MATERIALS WITH SUITABLE MATERIALS AS SPECIFIED IN THE GEOTECHNICAL REPORT. ALL EXCAVATED OR FILLED AREAS MUST BE COMPACTED AS OUTLINED IN THE GEOTECHNICAL REPORT. MOISTURE CONTENT AT TIME OF PLACEMENT MUST BE SUBMITTED IN A COMPACTION REPORT PREPARED BY A QUALIFIED GEOTECHNICAL ENGINEER, REGISTERED WITH THE STATE WHERE THE WORK IS PERFORMED, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES. SUBBASE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT MUST BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE BY OWNER/DEVELOPER, OR OWNER/DEVELOPER'S REPRESENTATIVE, SUBBASE IS TO BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL COMPACTED AS DIRECTED BY THE GEOTECHNICAL REPORT. EARTHWORK ACTIVITIES INCLUDING, BUT NOT LIMITED TO, EXCAVATION, BACKFILL, AND COMPACTING MUST COMPLY WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES. EARTHWORK ACTIVITIES MUST COMPLY WITH THE STANDARD STATE DOT SPECIFICATIONS FOR ROADWAY CONSTRUCTION (LATEST EDITION) AND ANY AMENDMENTS OR REVISIONS THERETO.
3. THE CONTRACTOR MUST COMPLY, TO THE FULLEST EXTENT, WITH THE LATEST OSHA STANDARDS AND REGULATIONS, AND/OR ANY OTHER AGENCY WITH JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE "MEANS AND METHODS" REQUIRED TO MEET THE INTENT AND PERFORMANCE CRITERIA OF OSHA, AS WELL AS ANY OTHER ENTITY THAT HAS JURISDICTION FOR EXCAVATION AND/OR TRENCHING PROCEDURES AND CONSULTANT SHALL HAVE NO RESPONSIBILITY FOR OR AS RELATED FOR OR AS RELATED TO EXCAVATION AND TRENCHING PROCEDURES.
4. PAVEMENT MUST BE SAW CUT IN STRAIGHT LINES, AND EXCEPT FOR EDGE OF BUTT JOINTS, MUST EXTEND TO THE FULL DEPTH OF THE EXISTING PAVEMENT. ALL DEBRIS FROM REMOVAL OPERATIONS MUST BE REMOVED FROM THE SITE AT THE TIME OF EXCAVATION. STOCKPILING OF DEBRIS WILL NOT BE PERMITTED.
5. THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEANOUT TOPS MUST BE ADJUSTED, AS NECESSARY, TO MATCH PROPOSED GRADES IN ACCORDANCE WITH ALL APPLICABLE STANDARDS, REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.
6. THE CONTRACTOR IS FULLY RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCING ANY CONSTRUCTION. CONTRACTOR MUST CONFIRM AND ENSURE 0.75% MINIMUM SLOPE AGAINST ALL ISLANDS, GUTTERS, AND CURBS; 1.0% ON ALL CONCRETE SURFACES; AND 1.0% MINIMUM ON ASPHALT (EXCEPT WHERE ADA REQUIREMENTS LIMIT GRADES), TO PREVENT PONDING. CONTRACTOR MUST IMMEDIATELY IDENTIFY, IN WRITING TO THE ENGINEER, ANY DISCREPANCIES THAT MAY OR COULD AFFECT THE PUBLIC SAFETY, HEALTH OR GENERAL WELFARE, OR PROJECT COST. IF CONTRACTOR PROCEEDS WITH CONSTRUCTION WITHOUT PROVIDING PROPER NOTIFICATION, MUST BE AT THE CONTRACTOR'S OWN RISK AND, FURTHER, CONTRACTOR SHALL INDEMNIFY, DEFEND AND HOLD HARMLESS THE DESIGN ENGINEER FOR ANY DAMAGES, COSTS, INJURIES, ATTORNEY'S FEES AND THE LIKE WHICH RESULT FROM SAME.
7. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE EXISTING LOCAL ASPHALT GRADE UNLESS OTHERWISE NOTED. FIELD ADJUST TO CREATE A MINIMUM OF 0.75% GUTTER GRADE ALONG CURB FACE. IT IS CONTRACTOR'S OBLIGATION TO ENSURE THAT DESIGN ENGINEER APPROVES FINAL CURBING CUT SHEETS PRIOR TO INSTALLATION OF SAME.
8. REFER TO SITE PLAN FOR ADDITIONAL NOTES.
9. IN THE EVENT OF DISCREPANCIES AND/OR CONFLICTS BETWEEN PLANS OR RELATIVE TO OTHER PLANS, THE SITE PLAN WILL TAKE PRECEDENCE AND CONTROL. CONTRACTOR MUST IMMEDIATELY NOTIFY THE DESIGN ENGINEER, IN WRITING, OF ANY DISCREPANCIES AND/OR CONFLICTS.
10. CONTRACTOR IS REQUIRED TO SECURE ALL NECESSARY AND/OR REQUIRED PERMITS AND APPROVALS FOR ALL OFF SITE MATERIAL SOURCES AND DISPOSAL FACILITIES. CONTRACTOR MUST SUPPLY A COPY OF APPROVALS TO ENGINEER AND OWNER PRIOR TO INITIATING ANY WORK.
11. WHERE RETAINING WALLS (WHETHER OR NOT THEY MEET THE JURISDICTIONAL DEFINITION) ARE IDENTIFIED ON PLANS, ELEVATIONS IDENTIFIED ARE FOR THE EXPOSED PORTION OF THE WALL. WALL FOOTINGS/FOUNDATION ELEVATIONS ARE NOT IDENTIFIED HEREIN AND ARE TO BE SET/DETERMINED BY THE CONTRACTOR BASED ON FINAL STRUCTURAL DESIGN SHOP DRAWINGS PREPARED BY THE APPROPRIATE PROFESSIONAL LICENSED IN THE STATE WHERE THE CONSTRUCTION OCCURS.
12. CONSULTANT IS NEITHER LIABLE NOR RESPONSIBLE FOR ANY SUBSURFACE CONDITIONS AND FURTHER, SHALL HAVE NO LIABILITY FOR ANY HAZARDOUS MATERIALS, HAZARDOUS SUBSTANCES, OR POLLUTANTS ON, ABOUT OR UNDER THE PROPERTY.

BALTIMORE COUNTY STANDARD GRADING PLAN NOTES

1. THE PROPOSED GRADING SHOWN ON THIS PLAN MEETS THE REQUIREMENTS SET FORTH BY BALTIMORE COUNTY DEPARTMENT ON ENVIRONMENTAL PROTECTION AND SUSTAINABILITY AND COMPLIES WITH ARTICLE 33, TITLE 5 OF THE BALTIMORE COUNTY CODE. HOWEVER, DUE TO BUILDING TYPES AND LAYOUT, SOME FIELD ADJUSTMENTS MAY BE REQUIRED. ALL CHANGES MUST COMPLY WITH THE ABOVE MENTIONED REQUIREMENTS.
2. ALL SWALES HAVE BEEN DESIGNED BY THE ENGINEER TO CONVEY RUNOFF ACCORDING TO BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS DESIGN STANDARDS.
3. THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST BUFFER EASEMENT OR OTHER FOREST RETENTION AREAS, EXCEPT AS PERMITTED BY THE BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY.
4. STORMWATER MANAGEMENT HAS BEEN ADDRESSED THROUGH PAYMENT OF A FEE-IN-LIEU TO THE BALTIMORE COUNTY STORMWATER MANAGEMENT FUND FOR 22.85 ACRES OF IMPERVIOUS AREA BASED ON AN LOD OF 46.01 ACRES.

SITE SPECIFIC GRADING NOTES

1. ALL UTILITIES SHOWN ARE PRIVATE UNLESS OTHERWISE NOTED.
2. THE SUBJECT DEVELOPMENT AREA IS LOCATED IN FLOOD ZONE 'X' (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) PER MAP ENTITLED "NATIONAL FLOOD INSURANCE PROGRAM, FIRM, FLOOD INSURANCE RATE MAP, BALTIMORE COUNTY, MARYLAND (UNINCORPORATED AREAS) PANEL 555 OF 580", MAP NUMBER 240010555G, MAP REVISED MAY 5, 2014, AND PLAN PREPARED BY PAI, DEV. PLANS REVIEW, DATED SEPTEMBER 21, 2016, PER MAP 0555F, DATED SEPTEMBER 26, 2008
3. ADDITIONAL EXISTING UTILITIES AND SITE FEATURES LOCATED WITHIN THE LIMIT OF DISTURBANCE NOT IDENTIFIED AS "TO BE REMOVED" OR "TO BE RELOCATED" MAY REQUIRE REMOVAL, TO BE FILLED WITH GROUT, OR RELOCATION AS DIRECTED BY THE GEOTECHNICAL ENGINEER OR TRADEPOINT DEVELOPMENT. CONTRACTOR TO REFER TO THE GEOTECHNICAL REPORT AND COORDINATE WITH THE GEOTECHNICAL ENGINEER TO DETERMINE WHICH EXISTING UTILITIES SHOULD BE GROUTED.
4. EXISTING UTILITIES NOTED AS "TO REMAIN" WITHIN THE LIMIT OF DISTURBANCE MUST BE MAINTAINED TO PROVIDE SERVICE FOR THE PROPOSED DEVELOPMENT.
5. ANY BENCHMARK THAT IS LOCATED WITHIN THE LOD AND WILL BE DISTURBED DURING CONSTRUCTION IS TO BE RESET PRIOR TO BEGINNING CONSTRUCTION.
6. EXISTING GRADES SHOWN ON THIS PLAN ARE FROM THE AN AERIAL SURVEY PROVIDED BY TRADEPOINT ATLANTIC. IF ACTUAL EXISTING GRADES DIFFER FROM WHAT IS SHOWN ON THESE PLANS, CONTRACTOR IS TO NOTIFY BOHLER IN WRITING.
7. EXISTING MANHOLE, CLEANOUT, AND VALVE COVERS WITHIN THE LIMIT OF DISTURBANCE NOT IDENTIFIED AS "TO BE REMOVED" ARE TO BE ADJUSTED TO MEET FINAL GRADES.
8. FINISHING MILL ROAD IMPROVEMENTS ARE BEING CONSTRUCTED UNDER A SEPARATE PERMIT NUMBER. SITE CONTRACTOR IS TO COORDINATE WITH THE FINISHING MILL ROAD CONTRACTOR TO ENSURE THAT PROPER GRADES AT THE ENTRANCES AND ALONG THE SITE BOUNDARY ARE MET. IF THERE ARE ANY DISCREPANCIES BETWEEN THESE GRADING PLANS AND THE FINISHING MILL ROAD GRADING PLANS, CONTRACTOR IS TO NOTIFY BOHLER IN WRITING.
9. EXISTING CONCRETE SLABS THAT ARE TO BE FILLED OVER AND REMAIN IN PLACE SHALL HAVE DRAINAGE HOLES PUNCHED IN THEM EVERY 10' O.C. PER THE GEOTECHNICAL ENGINEER.
10. EXISTING SURFACE SHOWN IS BASED UPON AERIAL TOPOGRPAHY RECEVIED FROM TRADEPOINT DEVELOPMENT ON 10/23/20. THIS SURFACE HAS BEEN MODIFIED TO AS REQUESTED BY TRADEPOINT DEVELOPMENT TO SHOW THE BUILDING PAD AT ELEVATION 18.58, A 10-FOOT OVERBUILD AROUND THE BUILDING PERIMETER AT ELEVATION 18.58 AND THE PREVIOUS BUILDING PAD EAST OF THE PROPOSED BUILDING PAD REMOVED.

LEGEND

EXISTING NOTE	TYPICAL NOTE TEXT	PROPOSED NOTE
	ONSITE PROPERTY LINE / R.O.W. LINE	
120 / 121	CONTOUR LINE	120 / 121
TC 516.4 OR 516.4	SPOT ELEVATIONS	TC 516.00 / TC 516.00 BC 515.50
SL / SL	SANITARY SEWER LINE	SL / S
W	UNDERGROUND WATER LINE	W
I	INDUSTRIAL WATER LINE	I
E	UNDERGROUND ELECTRIC LINE	E
G	UNDERGROUND GAS LINE	G
OH	OVERHEAD WIRE	OH
T	UNDERGROUND TELEPHONE LINE	T
	STORM SEWER	
FM	SANITARY SEWER FORCE MAIN	FM
	LIMIT OF DISTURBANCE	LOD LOD
FB FB	FOREST BUFFER	
	CONCRETE CURB & GUTTER	CURB AND GUTTER / SPILL CURB

BENCHMARK INFORMATION

ELEVATIONS ARE BASED ON NAVD 88, COORDINATES AND MERIDIAN ARE BASED ON THE MARYLAND COORDINATE SYSTEM (MCS) PER THE FOLLOWING MONUMENTS:

BCO# 1433 (CAPPED REBAR)
N 571,683.79, E 1,466,230.69, ELEV. 16.59
IN MEDIAN OF NORTH POINT BLVD SOUTH OF NORTH SNYDER AVE.

GIS #2 (BRASS DISK)
N 565,182.39, E. 1,464,480.72, ELEV. 9.95
EAST SIDE OF WHARF ROAD 408'± NORTH OF LIGHT TOWER

OWNER'S/DEVELOPER'S CERTIFICATION - GRADING

I/WE CERTIFY THAT ALL GRADING ON THIS SITE WILL BE DONE IN ACCORDANCE WITH THE CURRENT GRADING REQUIREMENTS AS SET FORTH BY THE BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY AND WITH THE REQUIREMENTS SPECIFIED IN ARTICLE 33, TITLE 5 OF THE BALTIMORE COUNTY CODE.

SIGNATURE OF OWNER/DEVELOPER — TITLE — DATE

PRINT NAME

STORMWATER MANAGEMENT PERMIT NOT REQUIRED

BALTIMORE COUNTY
DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY

APPROVED FOR GRADING

DATE

150 75 37.5 0 150
1"=150'

GRADING 1 OF 5

MARYLAND COORDINATE SYSTEM (MCS)

ELEVATIONS BASED ON NAVD 88, COORDINATES AND MERIDIAN ARE BASED ON THE MARYLAND COORDINATE SYSTEM (MCS) PER MONUMENTS BCO #1433 AND GIS 2

TRACKING # DRC-2020-00106; DRC# 063020E; DIST 15C7

OWNER/DEVELOPER

TRADEPOINT ATLANTIC, LLC
1600 SPARROWS POINT BLVD
BALTIMORE, MD 21219
CONTACT: ETHAN ZWEIG
PHONE: 443-745-5788

LIMIT OF DISTURBANCE: 2,004,196 S.F. OR 46.01 AC.

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
3	12/17/20	REVISED PER STORM/ GRADING CHANGES	MJR / MJG
7	2/4/21	REV. PER DOOR SHIFT AND LAGOON/ IFC	RMS / MJG

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APPROVED FOR CONSTRUCTION

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PROJECT No.:	MD16206630
DRAWN BY:	MJR
CHECKED BY:	MJG
DATE:	11/25/20
CAD I.D.:	MD16206630-GDP-11

PROJECT:

LOGISTICS CENTER III

FOR

TRADEPOINT ATLANTIC

PHASE II PLANS

1701 FINISHING MILL ROAD
BALTIMORE, MD 21219
TM 111, GRID 14, PARCEL 318
ELECTION DISTRICT 15
COUNCILMANIC DISTRICT 7
BALTIMORE COUNTY

BOHLER
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

M.J. GESELL
PROFESSIONAL ENGINEER
MARYLAND LICENSE No. 44097
PROFESSIONAL CERTIFICATION
I, MICHAEL J. GESELL, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 44097, EXPIRATION DATE: 6/9/21

SHEET TITLE:

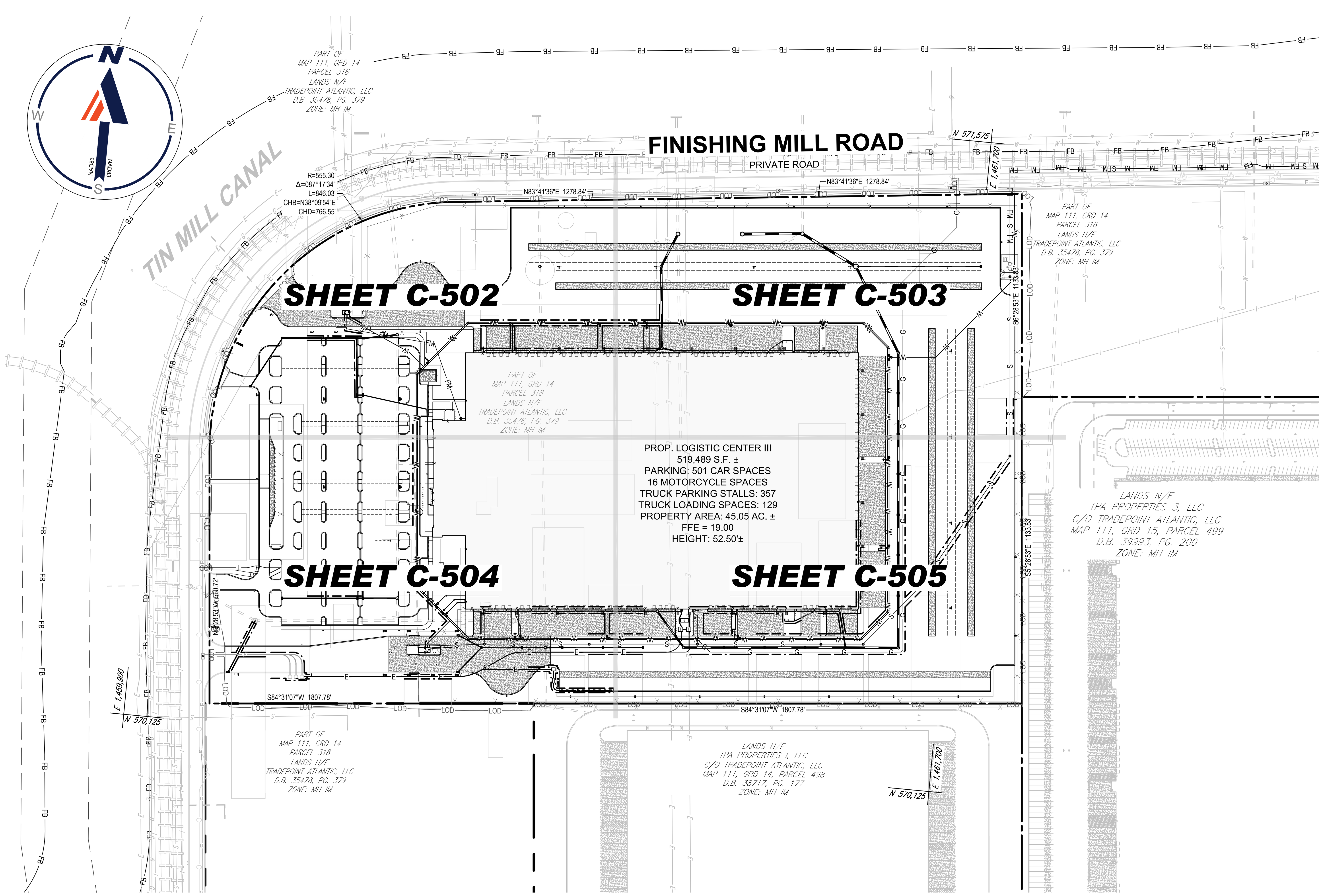
OVERALL FINAL GRADING PLAN

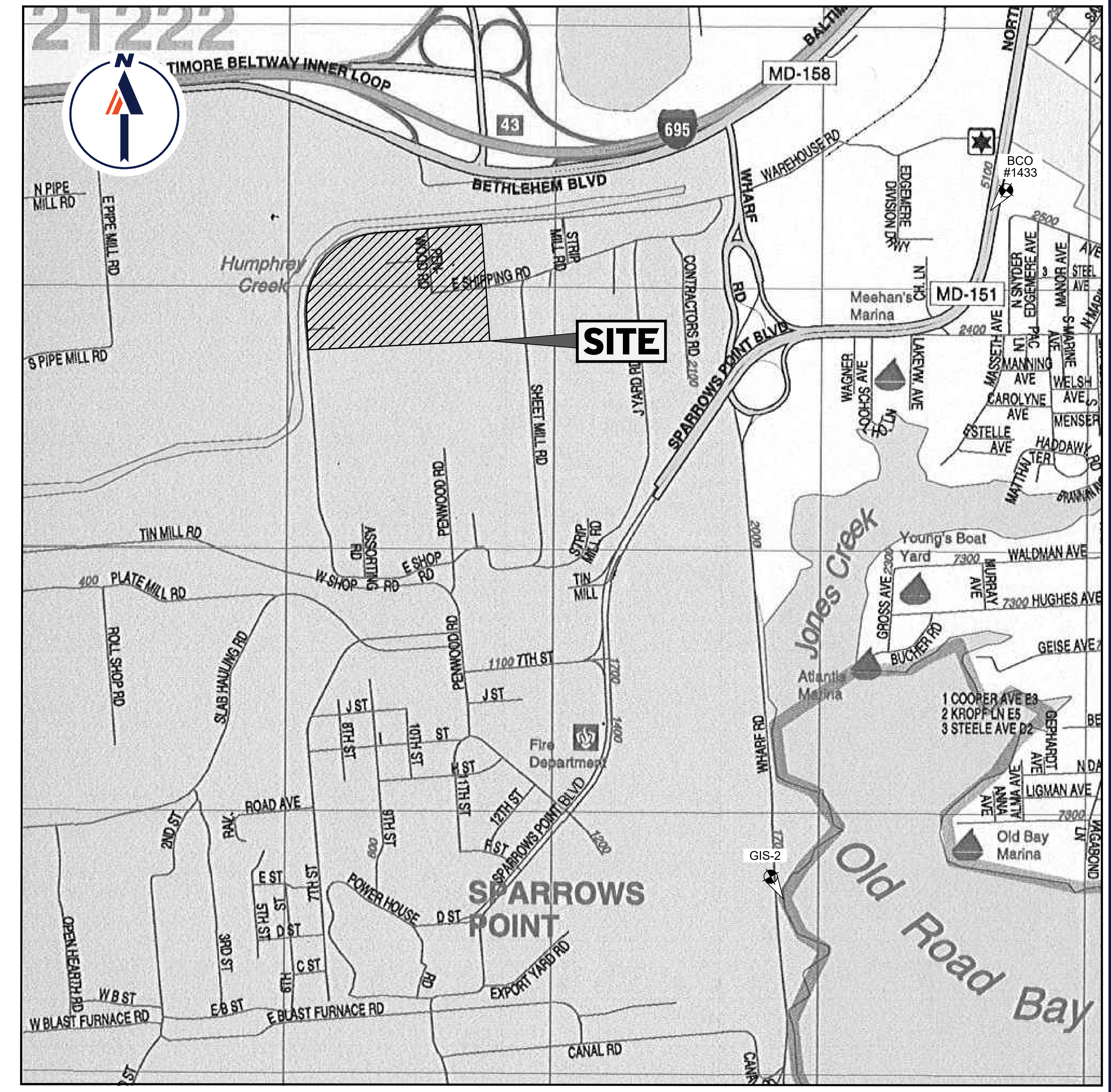
SHEET NUMBER:

C-401

MDE # 21-SF-0086

Mar 04, 2021
H:\16\MD16206630\DRAWINGS\PLAN SETS\PHASE 2 PLANS\MD16206630-GDP-11----->LAYOUT: C-401 - OVERALL FINAL GRADING PLAN





LOCATION MAP

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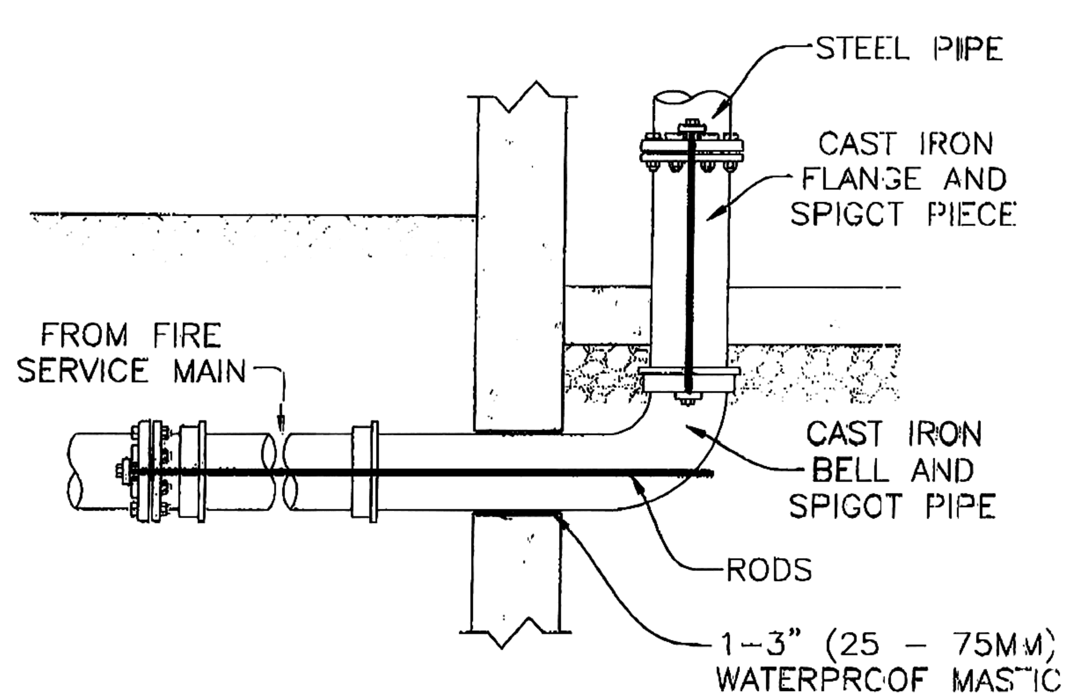
PERMIT USE NO. 20602153-5
SCALE: 1"=1000'



TYPICAL CONNECTION TO STANDPIPE RISER

NOT TO SCALE

BALTIMORE COUNTY FIRE LINE UTILITY NOTES

1. THE OVERALL INSTALLATION AND DESIGN SHALL BE IN COMPLIANCE WITH NFPA 24, 2007 EDITION, "STANDARD FOR THE INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES"; THE BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS, "STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION:; AND THE BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS "DESIGN MANUAL".
2. ALL RODDING, CLAMPS, NUTS, BOLTS, AND OTHER RESTRAINING DEVICES EXCEPT THRUST BLOCKS, SHALL BE CLEANED AND COATED WITH BITUMINOUS OR ASPHALT. NFPA 24, 2007 EDITION, SECTION 10.8.3.5.
3. FERROUS METAL PIPING, IF UTILIZED, SHALL BE LINED, AND STEEL PIPE SHALL BE COATED AND WRAPPED. NFPA 24, 2007 EDITION, SECTIONS 10.1.2, 10.1.3, 10.1.6, 10.1.6.2.
4. ALL PIPING , FITTINGS, AND JOINTS SHALL MEET THE REQUIREMENTS SET FORTH IN NFPA 24, 2007 EDITION, SECTION 10.1 THROUGH 10.3.5.
5. THRUST BLOCKS SHALL BE PROVIDED AT ALL CHANGES IN DIRECTION IN THE PIPELINE, AND AT ALL TEES, PLUGS, CAPS, AND BENDS. THRUST BLOCKS SHALL CONFORM TO THE BEARING AREAS NOTED IN THE TEXT OF THE STANDARD AND CONFIGURATIONS NOTED IN THE APPENDIX. NFPA 24, 2007 EDITION, SECTIONS 10.8.1.1 AND 10.8.2.
6. ALL VALVES (>2") CONTROLLING WATER SUPPLIES SHALL BE INSTALLED IN STANDARD VAULTS AS DETAILED BY THE BCDPW "STANDARD SPECIFICATION AND DETAILS FOR CONSTRUCTION" MANUAL, OR SHALL UTILIZE APPROVED POST INDICATOR VALVES. ROADWAY BOXES ARE NOT ACCEPTABLE. NFPA 24, 2007 EDITION, SECTIONS 6.1, 6.3 AND 6.4; BCDPW "DESIGN MANUAL", WATER MAIN SECTION, SECTION 2-4.7.
7. FIRE HYDRANTS, PUBLIC AND PRIVATE SHALL BE UL LISTED OR BE FM OR BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS APPROVED THREE (3) OUTLET HYDRANTS. OUTLETS SHALL BE 2-2 ½" NST AND 1-4 ½" BALTIMORE COUNTY STEAMER THREAD. NFPA 24, 2007 EDITION, SECTION 7.1.1 AND 7.1.1.2 BCDPW "DESIGN MANUAL", SECTION 2-4.4 STEAMER THREAD, AS DETAILED ON BCDPW PLATE W-3C, DATED 3/5/82. BALTIMORE COUNTY BILL 48-10 SECTION 1:18.3.3.1(3) AND 1:18.3.5.2.
8. FIRE HYDRANTS SHALL HAVE A CENTERLINE SET BACK FROM THE CURB OF 24" AND SHALL HAVE THE CENTERLINE OF THE 4-1/2" STEAMER CONNECTION NO LESS THAN 17" NOR MORE THAN 30" ABOVE FINISHED GRADE, FACING THE ACCESS DRIVE. BCDPW "STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION", PLATE W-3A, W-3B.
9. FIRELINES ARE SUBJECT TO A MINIMUM OF A 200-PSI HYDROSTATIC TEST IN ACCORDANCE WITH NFPA 24, 2007 EDITION, SECTION 10.10.2.2.1. ALL THRUST BLOCKS, TIE RODS, VALVES, FITTINGS, AND HYDRANT DRAIN FIELDS SHALL BE EXPOSED FOR FIRE DEPARTMENT INSPECTION AT THE TIME OF THE TEST. PIPE JOINTS MAY BE COVERED AT THE TIME OF THE TEST.
10. THE MINIMUM DEPTH OF COVER FOR ALL UNDERGROUND FIRE LINES SHALL BE A MINIMUM OF 4'-0" MEASURED FROM THE TOP OF THE PIPE. NFPA 24, 2007 EDITION, SECTION 10.4 AND TABLE A10.5.1.
11. PIPE SHALL NOT BE RUN MORE THAN ONE PIPE LENGTH (APPROXIMATELY 20 FEET) UNDER BUILDINGS. FITTINGS SHALL NOT BE LOCATED WITHIN THE BEARING AREA OF ANY FOUNDATIONS UNLESS APPROVED BY THE DESIGN ENGINEER. NFPA 24, 2007 EDITION, SECTION 10.6.
12. SPOOL PIECES ON VERTICAL RISES OR HORIZONTAL STUB-INS SHALL BE WELDED OR SCREWED FLANGE, OR LISTED UNIFLANGE TYPE FITTING. NOTE: UNIFLANGE TYPE FITTINGS SHALL BE SPECIFICALLY LISTED FOR ABOVEGROUND USE.
13. ON SITE (PRIVATE) HYDRANTS SHALL BE PAINTED RED, IN ORDER TO DISTINGUISH THEM FROM (ORANGE) PUBLIC HYDRANTS. BALTIMORE COUNTY BILL 48-10, SECTION 1:18.3.5.2.
14. COORDINATE HYDROSTATIC TEST AND FLUSH WITH CONTRACTOR INSTALLING STUB-IN, SUCH THAT ENTIRE LEAD-IN IS TESTED AS A SINGLE UNIT.
15. COORDINATE HYDROSTATIC TEST AND FLUSH WITH CONTRACTOR INSTALLING LEAD-IN SUCH THAT ENTIRE LEAD TO THE BASE OF THE RISER IS TESTED AS A SINGLE UNIT.
16. RESTRAINED JOINT SYSTEMS. FIRE MAINS UTILIZING RESTRAINED JOINT SYSTEMS SHALL INCLUDE THE FOLLOWING PER NFPA 24, 2007 EDITION, SECTION 10.8.3:
    A. LOCKING MECHANICAL OR PUSH-ON JOINTS
    B. MECHANICAL JOINTS UTILIZING SETSCREW RETAINER GLANDS
    C. BOLTED FLANGE JOINTS
    D. HEAT-FUSED OR WELDED JOINTS
    E. PIPE CLAMPS AND TIE RODS
    F. OTHER APPROVED METHODS OR DEVICES.
17. PRIVATE HYDRANTS SUPPLIED BY FIRE PUMPS: PRIVATE FIRE HYDRANTS LOCATED ON THE DISCHARGE SIDE OF THE FIRE PUMPS SHALL HAVE THEIR BONNETS PAINTED WHITE IN ORDER TO INDICATE THAT SAID HYDRANTS ARE OFF THE DISCHARGE SIDE OF A FIRE PUMP. EXCEPTIONS FOR PRESENTLY EXISTING SYSTEMS MAY BE GRANTED AT THE DISCRETION OF THE CHIEF OF FIRE DEPARTMENT OF DESIGNEE. BALTIMORE COUNTY BILL 48-10 SECTION 1:18.3.5.1.
18. ALL UNDERGROUND PIPING SHALL BE FLUSHED PRIOR TO HYDROSTATIC TESTING IN ACCORDANCE TO NFPA 24, 2007 EDITION, SECTION 10.10.2.1.

LEGEND

EXISTING NOTE	TYPICAL NOTE TEXT	PROPOSED NOTE
	ONSITE PROPERTY LINE / R.O.W. LINE	
120 / 121	CONTOUR LINE	120 / 121
TC 516.4 OR 516.4	SPOT ELEVATIONS	TC 516.00 / TC 516.00 BC 515.50
SL	SANITARY SEWER LINE	SL / S
W	UNDERGROUND WATER LINE	W
I	INDUSTRIAL WATER LINE	I
E	UNDERGROUND ELECTRIC LINE	E
G	UNDERGROUND GAS LINE	G
OH	OVERHEAD WIRE	OH
T	UNDERGROUND TELEPHONE LINE	T
	STORM SEWER	
FM	SANITARY SEWER FORCE MAIN	FM
	LIMIT OF DISTURBANCE	LOD LOD
FB FB	FOREST BUFFER	
	CONCRETE CURB & GUTTER	CURB AND GUTTER / SPILL CURB

BENCHMARK INFORMATION

ELEVATIONS ARE BASED ON NAVD 88, COORDINATES AND MERIDIAN ARE BASED ON THE MARYLAND COORDINATE SYSTEM (MCS) PER THE FOLLOWING MONUMENTS:

BCO# 1433 (CAPPED REBAR)
N 571,683.79, E 1,466,230.69, ELEV. 16.59
IN MEDIAN OF NORTH POINT BLVD SOUTH OF NORTH SNYDER AVE.

GIS #2 (BRASS DISK)
N 565,182.39, E. 1,464,480.72, ELEV. 9.95
EAST SIDE OF WHARF ROAD 408'± NORTH OF LIGHT TOWER

TEST PIT NOTE

TP

CONTRACTOR TO TEST PIT 2 FEET BELOW PROPOSED UTILITY OR UNTIL EXACT LOCATION OF EXISTING UTILITY IS IDENTIFIED AND SUBMIT ANY DISCREPANCIES TO BOHLER IN WRITING.

SITE SPECIFIC UTILITY NOTES

1. ADDITIONAL EXISTING UTILITIES LOCATED WITHIN THE LIMIT OF DISTURBANCE NOT IDENTIFIED AS "TO BE REMOVED" OR "TO BE RELOCATED" MAY REQUIRE REMOVAL OR RELOCATION AS DIRECTED BY THE GEOTECHNICAL ENGINEER OR TRADEPOINT DEVELOPMENT.
2. EXISTING UTILITIES NOTED AS "TO REMAIN" WITHIN THE LIMIT OF DISTURBANCE MUST BE MAINTAINED TO PROVIDE SERVICE FOR THE PROPOSED DEVELOPMENT.
3. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ARE APPROXIMATE BASED ON BETHLEHEM STEEL RECORD DRAWINGS (BS#), BALTIMORE COUNTY RECORD DRAWINGS (DWG#), AND THE AERIAL SURVEY CAD FILES NOTED ON THE COVER SHEET. THE CONTRACTOR IS ADVISED EXCAVATION MAY BE NECESSARY.

OWNER/DEVELOPER

TRADEPOINT ATLANTIC, LLC
1600 SPARROWS POINT BLVD
BALTIMORE, MD 21219
CONTACT: ETHAN ZWEIG
PHONE: 443-745-5788

MARYLAND COORDINATE SYSTEM (MCS)

ELEVATIONS BASED ON NAVD 88, COORDINATES AND MERIDIAN ARE BASED ON THE MARYLAND COORDINATE SYSTEM (MCS) PER MONUMENTS BCO #1433 AND GIS 2

TRACKING # DRC-2020-00106; DRC# 063020E; DIST 15C7

40 20 10 0 40
1"= 40'

BOHLER

SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

5	1/11/21	REV. PER STORM DRAIN TEST PIT INFO	MJR MJG

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PROJECT No.:	MD16206630
DRAWN BY:	MJR
CHECKED BY:	MJG
DATE:	11/25/20
CAD I.D.:	MD16206630-UTP-11

PROJECT:

LOGISTICS CENTER III

FOR

TRADEPOINT ATLANTIC

PHASE II PLANS

1701 FINISHING MILL ROAD
BALTIMORE, MD 21219
TM 111, GRID 14, PARCEL 318
ELECTION DISTRICT 15
COUNCILMANIC DISTRICT 7
BALTIMORE COUNTY

BOHLER
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
Phone: (410) 821-7900
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MD@BohlerEng.com

M.J. GESELL
PROFESSIONAL ENGINEER
MARYLAND LICENSE No. 44097
PROFESSIONAL CERTIFICATION
I, MICHAEL J. GESELL, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 44097, EXPIRATION DATE: 6/9/21

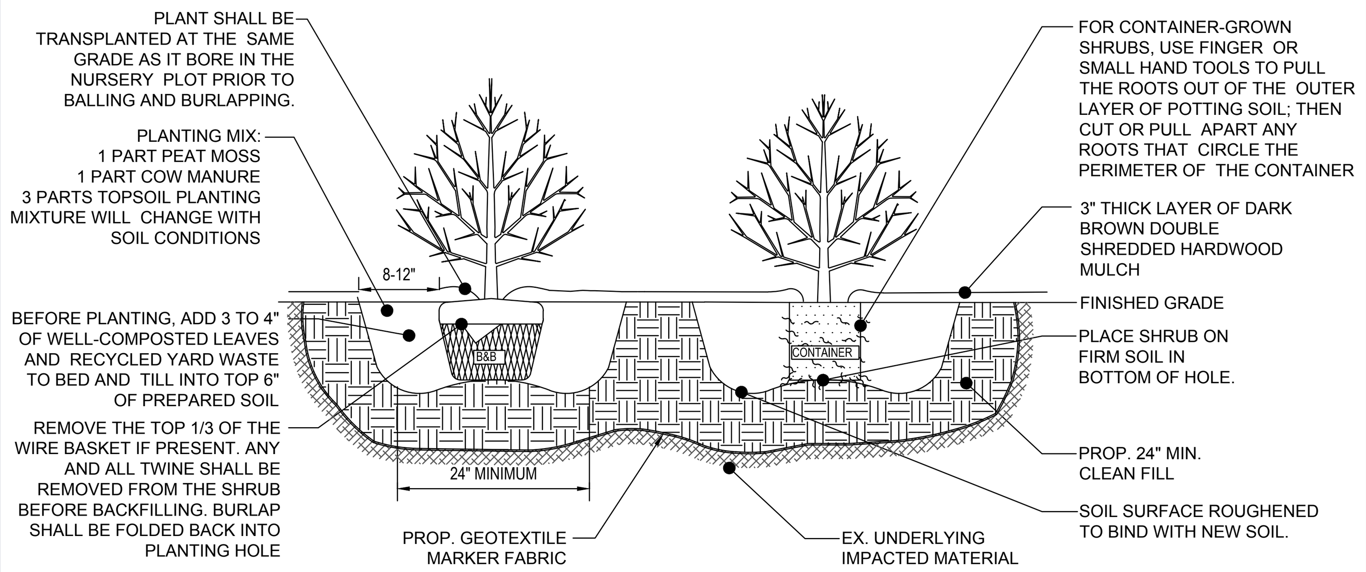
SHEET TITLE:

OVERALL UTILITY PLAN

SHEET NUMBER:

C-501

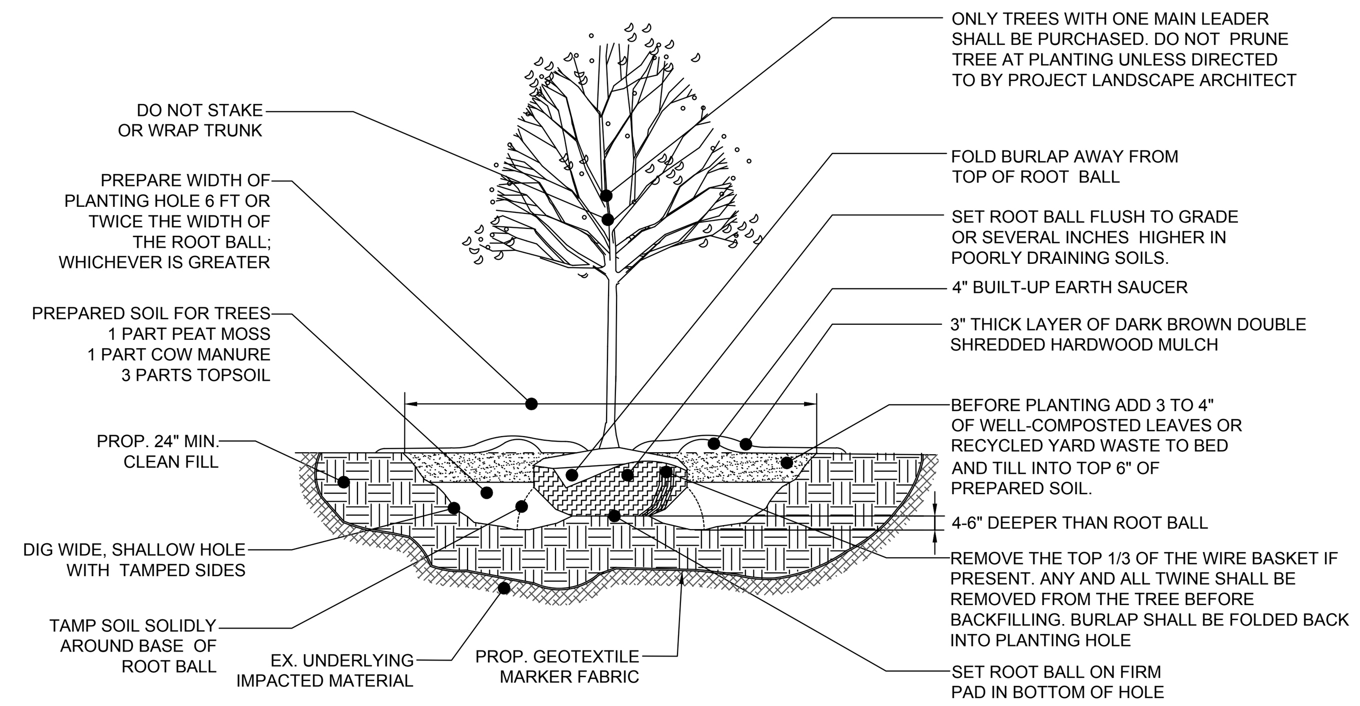
MDE # 21-SF-0086



REFERENCE: ARCHITECTURAL GRAPHIC STANDARDS 1998 CUMULATIVE SUPPLEMENT

DECIDUOUS AND EVERGREEN SHRUB PLANTING DETAIL

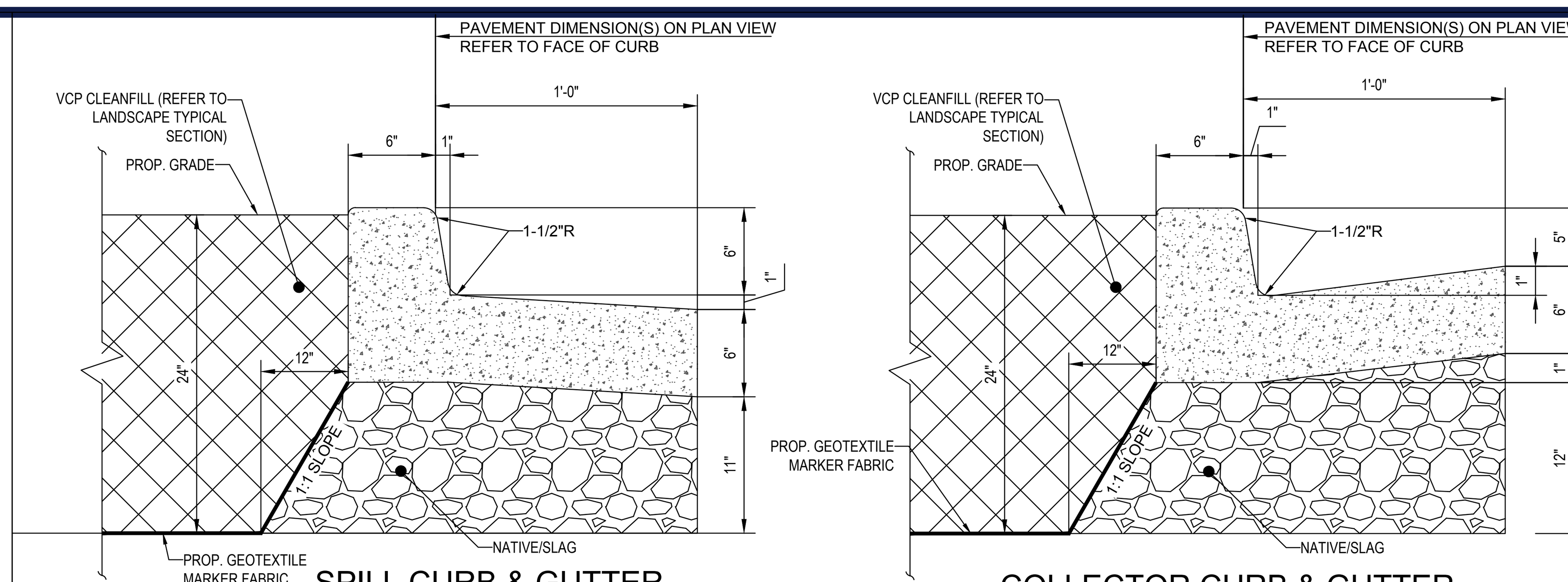
NOT TO SCALE



REFERENCE: ARCHITECTURAL GRAPHIC STANDARDS 1998 CUMULATIVE SUPPLEMENT.

DECIDUOUS TREE PLANTING DETAIL

NOT TO SCALE



SPILL CURB & GUTTER

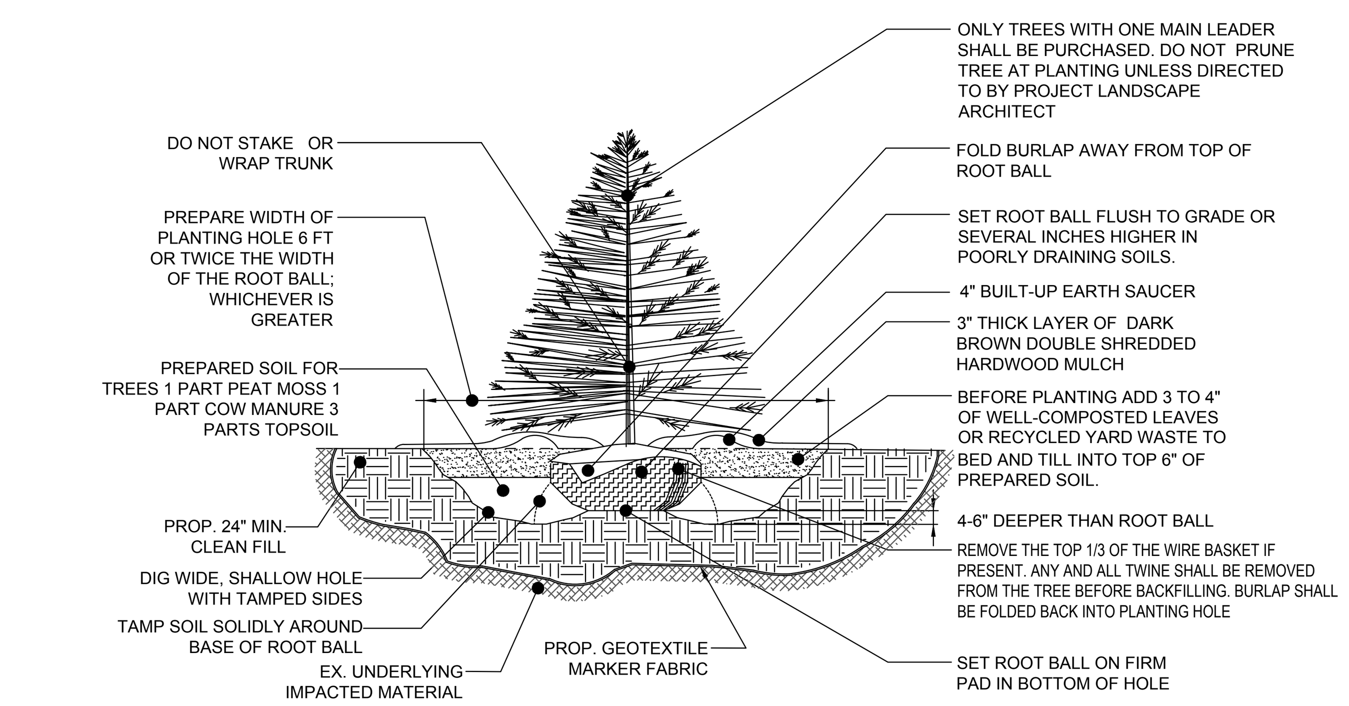
COLLECTOR CURB & GUTTER

NOTES:

1. CONCRETE FOR CURBING SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 P.S.I. @ 28 DAYS.
2. CONSTRUCTION STAKING FOR CURB INSTALLATION SHALL BE REFERENCED (CUT OR FILL) TO THE TOP OF CURB.
3. AT CONTRACTOR'S OPTION, THE GUTTER THICKNESS MAY BE INCREASED AT THE EDGE OF PAVEMENT TO MAKE BOTTOM OF GUTTER CONTIGUOUS WITH BOTTOM OF ASPHALT PAVEMENT.
4. CONTRACTION JOINTS SHALL BE PLACED @ 10'-0" O.C. TOOLED 1/4" (±1/16") WIDE, 1" DEEP. EXPANSION JOINTS SHALL BE PLACED @ 40'-0" INTERVALS, MAXIMUM, AND ALL P.C.'S.
5. GUTTER PAN SLOPE TO BE ADJUSTED WITHIN ACCESSIBLE PARKING SPACES TO MATCH SLOPE BETWEEN SPOT ELEVATIONS.

CONCRETE CURB & GUTTER DETAIL

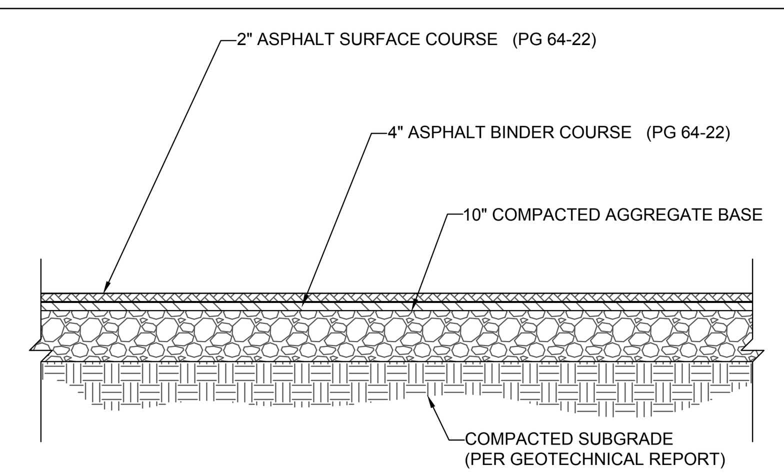
NOT TO SCALE



REFERENCE: ARCHITECTURAL GRAPHIC STANDARDS 1998 CUMULATIVE SUPPLEMENT.

EVERGREEN TREE PLANTING DETAIL

NOT TO SCALE

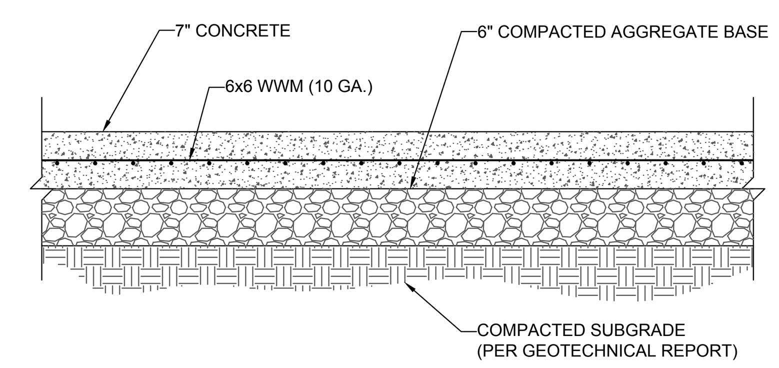


NOTE:

1. SECTION SHOWN WAS PREPARED BASED ON A CBR OF 10 PER A GEOTECHNICAL REPORT PREPARED BY HILLIS-CARNES ENGINEERING ASSOCIATES, ENTITLED: "GEOTECHNICAL ENGINEERING STUDY; PARCEL B-6; BALTIMORE COUNTY, MARYLAND", DATED: MAY 26, 2017; PROJECT NO.: 16729B. FINAL DESIGN TO BE PROVIDED ONCE FINAL CBR'S ARE AVAILABLE ON COMPACTED SUB-BASE.

HEAVY DUTY ASPHALT PAVEMENT SECTION

NOT TO SCALE

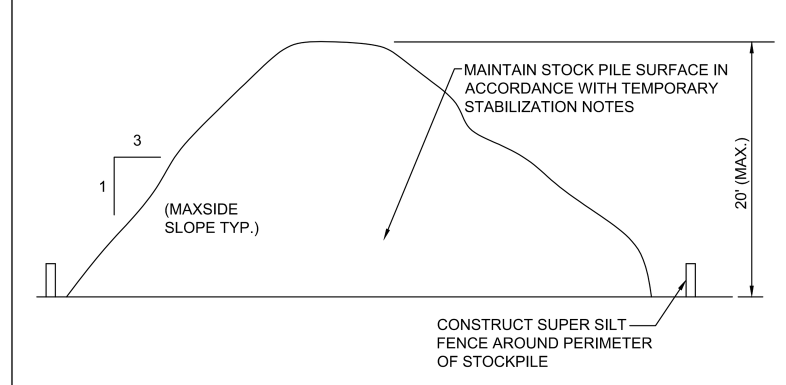


NOTE:

1. SECTION SHOWN WAS PREPARED BASED ON A CBR OF 10 PER A GEOTECHNICAL REPORT PREPARED BY HILLIS-CARNES ENGINEERING ASSOCIATES, ENTITLED: "GEOTECHNICAL ENGINEERING STUDY; PARCEL B-6; BALTIMORE COUNTY, MARYLAND", DATED: MAY 26, 2017; PROJECT NO.: 16729B. FINAL DESIGN TO BE PROVIDED ONCE FINAL CBR'S ARE AVAILABLE ON COMPACTED SUB-BASE.

HEAVY DUTY CONCRETE SECTION

NOT TO SCALE



TEMPORARY STOCKPILE DETAIL

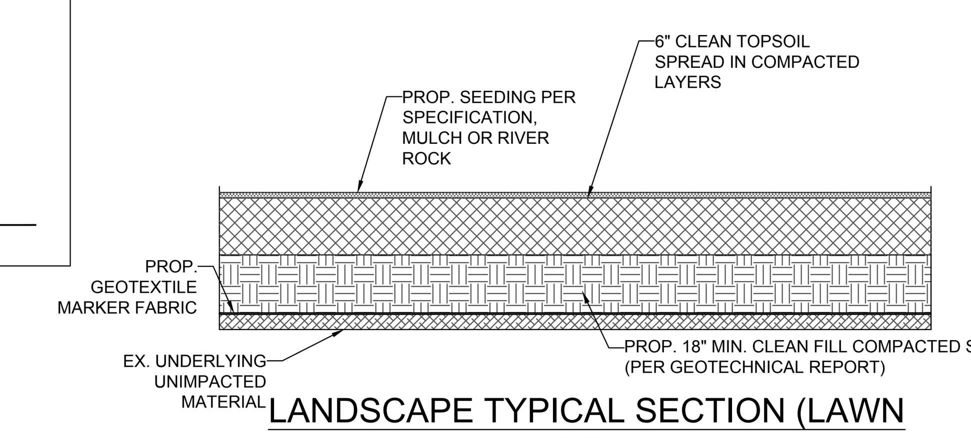
NOT TO SCALE

SEEDING SPECIFICATIONS

1. PRIOR TO SEEDING, AREA IS TO BE TOPSOILED, FINE GRADED, AND RAKED OF ALL DEBRIS LARGER THAN 2" DIAMETER.
2. PRIOR TO SEEDING , CONSULT MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.
3. SEEDING RATES:

PERENNIAL RYEGRASS	$\frac{1}{2}$ LB/1,000 S.F.
KENTUCKY BLUEGRASS	1 LB/1,000 S.F.
RED FESCUE	1 $\frac{1}{2}$ LBS/1,000 S.F.
SPREADING FESCUE	1 $\frac{1}{2}$ LBS/1,000 S.F.
FERTILIZER (20:10:10)	14 LBS/1,000 S.F.
MULCH	90 LBS/1,000 S.F.

4. GERMINATION RATES WILL VARY AS TO TIME OF YEAR FOR SOWING. CONTRACTOR TO IRRIGATE SEEDED AREA UNTIL AN ACCEPTABLE STAND OF COVER IS ESTABLISHED BY OWNER.



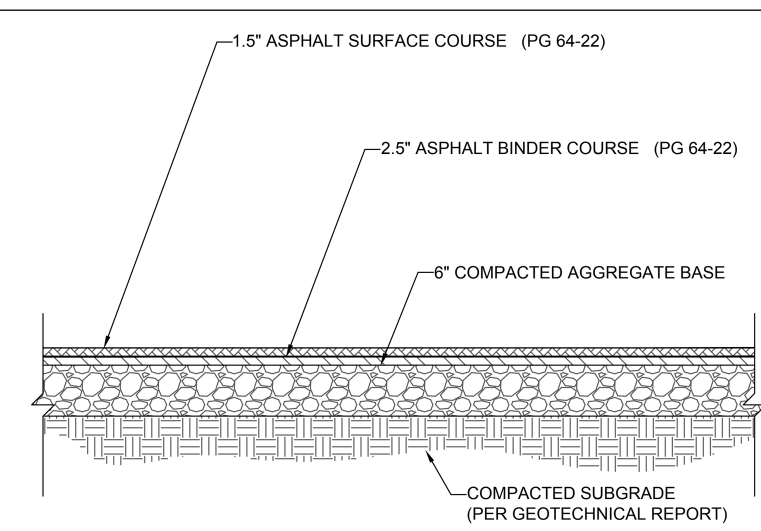
LANDSCAPE TYPICAL SECTION (LAWN AREA)

NOT TO SCALE

SEQUENCE OF CONSTRUCTION:

1. NOTIFY BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS, AND INSPECTIONS, SEDIMENT CONTROL (410-887-3226) AT LEAST 48 HOURS PRIOR TO BEGINNING WORK ON SITE. HIGH VISIBILITY ORANGE SAFETY FENCE SHALL BE MANUALLY INSTALLED ALONG THE LIMIT OF DISTURBANCE (LOD) WHEREVER THE LOD IS WITHIN 50 FEET OF ANY FOREST BUFFER OR FOREST CONSERVATION EASEMENT. THIS FENCE SHALL BE INSPECTED BY DEPS AT THE PRECONSTRUCTION MEETING.
2. STAKE OVERALL LIMIT OF DISTURBANCE PER THE APPROVED EROSION AND SEDIMENT CONTROL PLANS. INSTALL SAFETY FENCE AS NECESSARY.
3. CLEAR, GRUB AND REMOVE ANY NECESSARY EXISTING FEATURES INTERFERING WITH PERIMETER SEDIMENT AND EROSION CONTROL MEASURES AND DEVICES ONLY, INCLUDING RAILROAD TRACKS AS NECESSARY. INSTALL STABILIZED CONSTRUCTION ENTRANCE WITH MOUNTABLE BERM, SUPER SILT FENCE, AND CONCRETE WASHOUT STATION AS DIRECTED BY THE BALTIMORE COUNTY SEDIMENT CONTROL INSPECTOR AS SHOWN ON PLAN. SUPER SILT FENCE SHALL BE INSPECTED & MAINTAINED EACH DAY AND AFTER EACH STORM EVENT. MAINTENANCE SHALL INCLUDE BUT NOT BE LIMITED TO REMOVAL OF ALL ACCUMULATED SEDIMENT. GEOTEXTILE FABRIC SHALL BE REPLACED AS NEEDED TO ENSURE PROPER FUNCTION.
4. WITH THE APPROVAL OF BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS, AND INSPECTIONS, SEDIMENT CONTROL AND THE SEDIMENT CONTROL INSPECTOR, CLEAR AND GRUB REMAINDER OF THE SITE. REMOVE REMAINDER OF PAVING, CURB, PORTIONS OF THE BUILDING SLAB, NECESSARY UTILITIES, ETC. AS SHOWN ON THE DEMOLITION PLANS. ALL OPEN PIPE ENDS TO BE BLOCKED DAILY TO PREVENT SEDIMENT FROM ENTERING THE STORMDRAIN SYSTEM. ALL AREAS OUTSIDE OF THE PERIMETER CONTROL MEASURES SHALL BE COMPLETED PER THE "WORK OUTSIDE PERIMETER CONTROLS NOTES" AND "UTILITY NOTES ON THE APPROVED SEDIMENT CONTROL PLANS". DISPOSAL MATERIAL WILL EITHER NEED TO BE TAKEN TO A RUBBLE LANDFILL WITH AN ACTIVE GRADING PERMIT AND APPROVED SEDIMENT CONTROL PLAN, OR AN EXISTING ASPHALT RECYCLING FACILITY SUBJECT TO THE SAME.
5. IMMEDIATELY AFTER DEMOLITION ACTIVITIES HAVE OCCURRED; BEGIN SITE GRADING.
6. BEGIN INSTALLATION OF STORM DRAIN STRUCTURES ALONG WITH ASSOCIATES STORM DRAIN PIPES. IMMEDIATELY INSTALL INLET PROTECTION ON PROPOSED INLETS AS SHOWN ON THE APPROVED SEDIMENT CONTROL PLANS. CONTRACTOR SHALL PERFORM SUFFICIENT GRADING SURROUNDING INLETS, TO ENSURE THAT IT IS CAPABLE OF FUNCTIONING AND CAPTURING ALL UPSLOPE FLOWS.
7. ONCE SUBGRADES ARE REACHED, BEGIN CONSTRUCTION OF WAREHOUSE AND CONCRETE CURB AND GUTTER. BEGIN CONSTRUCTION OF UNDERGROUND UTILITIES. GRADES AROUND THE BUILDING SHOULD BE DESIGNED SUCH THAT ALL RUNOFF WILL FLOW AROUND THE BUILDING.
8. COMPLETE FINE GRADING OF SITE. SITE SHALL BE BROUGHT TO GRADE AS SOON AS POSSIBLE AND STABILIZED WITH EITHER STONE SUBBASE OR PERMANENT SEED AND MULCH. EXCAVATE FOR STORMWATER MANAGEMENT AREAS.
9. INSTALL ANY REMAINING STONE SUBBASE AND BEGIN PAVING.

   UPON STABILIZATION OF THE CONTRIBUTING DRAINAGE AREA WITH ESTABLISHED VEGETATION AND WITH PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR, INSTALL LANDSCAPING ON THE REST OF THE SITE PER THE APPROVED LANDSCAPING PLAN.
10. UPON STABILIZATION OF THE SITE WITH ESTABLISHED VEGETATION AND WITH PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL MEASURES AND STABILIZE THOSE AREAS DISTURBED BY THIS PROCESS.

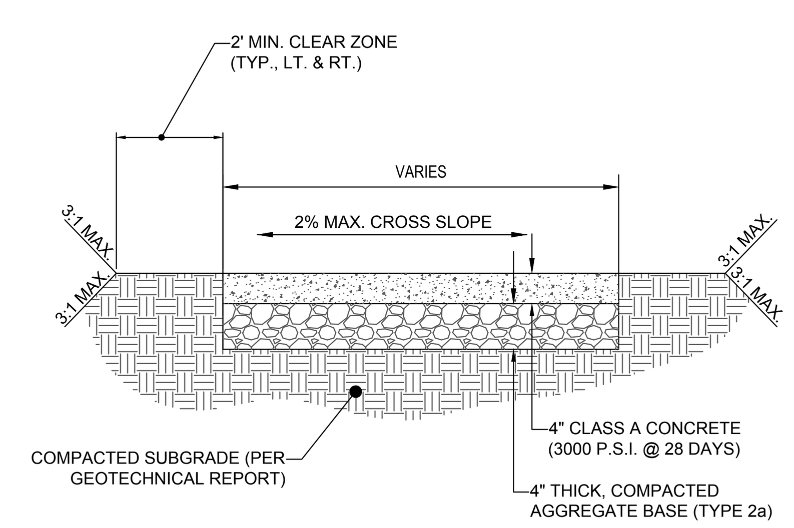


NOTE:

1. SECTION SHOWN WAS PREPARED BASED ON A CBR OF 10 PER A GEOTECHNICAL REPORT PREPARED BY HILLIS-CARNES ENGINEERING ASSOCIATES, ENTITLED: "GEOTECHNICAL ENGINEERING STUDY; PARCEL B-6; BALTIMORE COUNTY, MARYLAND", DATED: MAY 26, 2017; PROJECT NO.: 16729B. FINAL DESIGN TO BE PROVIDED ONCE FINAL CBR'S ARE AVAILABLE ON COMPACTED SUB-BASE.

STANDARD DUTY ASPHALT PAVEMENT SECTION

NOT TO SCALE



NOTE:

1. EXPANSION JOINTS 1/2" WIDE PREMOLDED BIT. MATERIAL SHALL BE INSTALLED AT 30' INTERVALS, CRACK CONTROL JOINTS TO BE SPACED AT INTERVALS EQUAL TO SIDEWALK WIDTH.

CONCRETE SIDEWALK DETAIL

NOT TO SCALE

BOHLER

SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	10/27/20	REVISED PER UPDATED LAYOUT	RMS / AGS

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PROJECT No.:	MD16206630
DRAWN BY:	ISL/RMS
CHECKED BY:	MJG
DATE:	10/21/2020
CAD I.D.:	MD16206630-SPP-1

PROJECT:

PRELIMINARY PLAN

FOR

TRADEPOINT ATLANTIC

LOGISTICS CENTER III

1701 FINISHING MILL ROAD
BALTIMORE, MD 21219
TM 111, GRID 14, PARCEL 318
ELECTION DISTRICT 15
COUNCILMANIC DISTRICT 7
BALTIMORE COUNTY

BOHLER
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

SHEET TITLE:

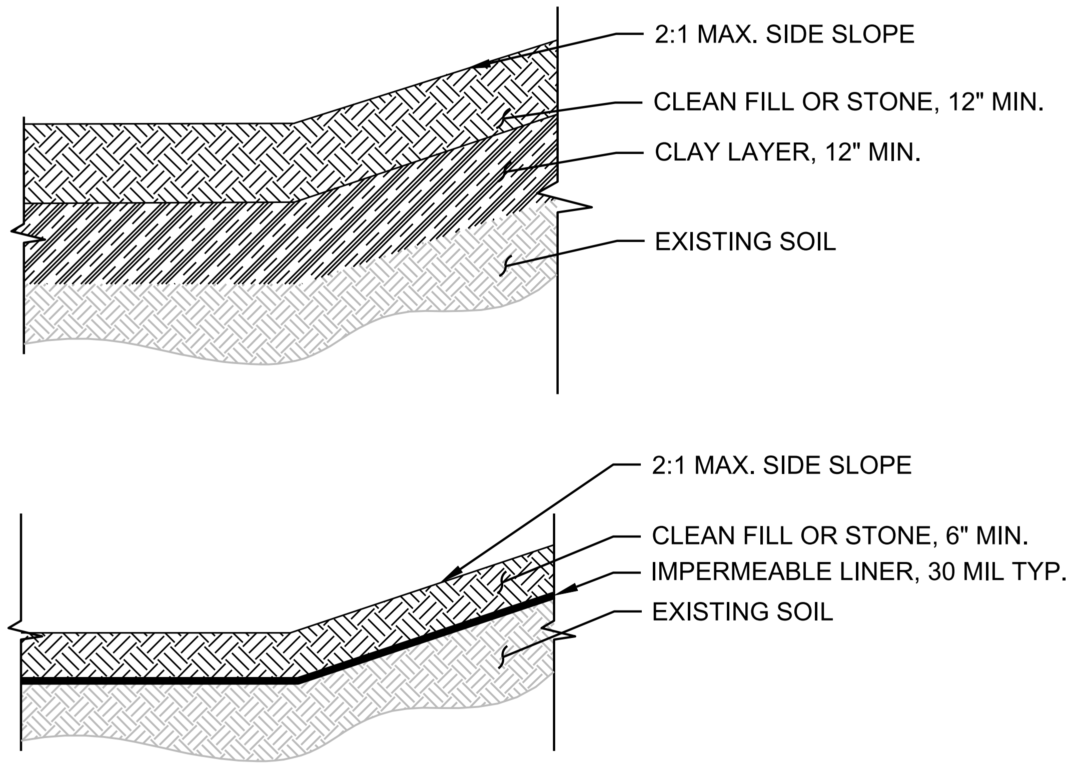
SECTIONS AND DETAILS

SHEET NUMBER:

C-901

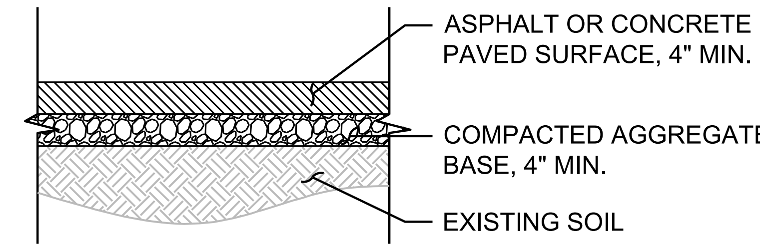
REVISION 1 - 10/27/20

APPENDIX F



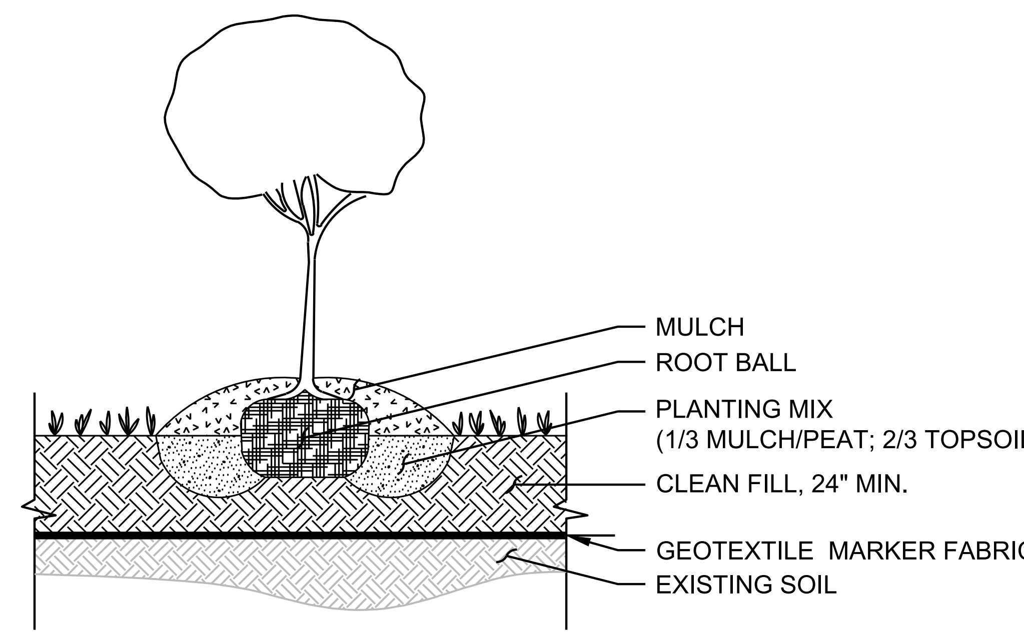
TYPICAL POND SECTIONS

NOT TO SCALE



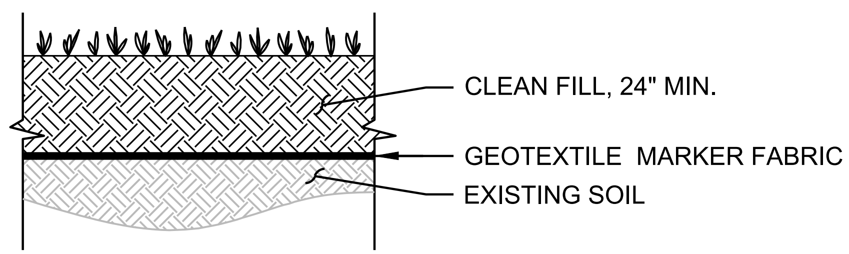
TYPICAL PAVING SECTION

NOT TO SCALE



TYPICAL PLANTING SECTION

NOT TO SCALE



TYPICAL LANDSCAPE SECTION

NOT TO SCALE

GEOTEXTILE MARKER FABRIC SPECIFICATIONS

THE GEOTEXTILE MARKER FABRIC SHALL BE A NONWOVEN PERVIOUS SHEET OF POLYPROPYLENE MATERIAL. ADD STABILIZERS AND/OR INHIBITORS TO THE BASE MATERIAL, AS NEEDED, TO MAKE THE FILAMENTS RESISTANT TO DETERIORATION BY ULTRAVIOLET LIGHT, OXIDATION AND HEAT EXPOSURE. REGRIND MATERIAL, WHICH CONSISTS OF EDGE TRIMMINGS AND OTHER SCRAPS THAT HAVE NEVER REACHED THE CONSUMER, MAY BE USED TO PRODUCE THE GEOTEXTILE. POST-CONSUMER RECYCLED MATERIAL MAY BE USED. GEOTEXTILE SHALL BE FORMED INTO A NETWORK SUCH THAT THE FILAMENTS OR YARNS RETAIN DIMENSIONAL STABILITY RELATIVE TO EACH OTHER, INCLUDING THE EDGES. GEOTEXTILES SHALL MEET THE REQUIREMENTS SPECIFIED IN TABLE 1. WHERE APPLICABLE, TABLE 1 PROPERTY VALUES REPRESENT THE MINIMUM AVERAGE ROLL VALUES IN THE WEAKEST PRINCIPAL DIRECTION. VALUES FOR APPARENT OPENING SIZE (AOS) REPRESENT MAXIMUM AVERAGE ROLL VALUES

TABLE 1

Mechanical Properties	Test Method	Unit	Minimum Average Roll Value	
			MD	CD
Grab Tensile Strength	ASTM D4632	lbs (N)	120 (534)	120 (534)
Grab Tensile Elongation	ASTM D4632	%	50	50
Trapezoid Tear Strength	ASTM D4533	lbs (N)	50 (223)	50 (223)
CBR Puncture Strength	ASTM D6241	lbs (N)	310 (1380)	
			Maximum Opening Size	
Apparent Opening Size (AOS)	ASTM D4751	U.S. Sieve (mm)	70 (0.212)	
			Minimum Roll Value	
Permittivity	ASTM D4491	sec^{-1}	1.7	
Flow Rate	ASTM D4491	$gal/min/ft^2$ ($l/min/m^2$)	135 (5500)	
			Minimum Test Value	
UV Resistance (at 500 hours)	ASTM D4355	% strength retained	70	

ARM Group LLC
Engineers and Scientists

designed	RJC	scale	N/A
checked	TNP	date	9/8/2020
drawn	RJC	project no.	160443M

drawing title: MINIMUM CAPPING SECTION DETAILS

SPARROWS POINT
BALT. COUNTY, MARYLAND

project title: SPARROWS POINT
TRADEPOINT ATLANTIC

Sheet 1

P:\EnviroAnalytics Group\160443M EAG_TPA Redevelopment\Drwg\B6\Production\Figure 6b - Environmental Capping Detail.dwg Plotted: April 9, 2019

APPENDIX G

GENERAL NOTES:

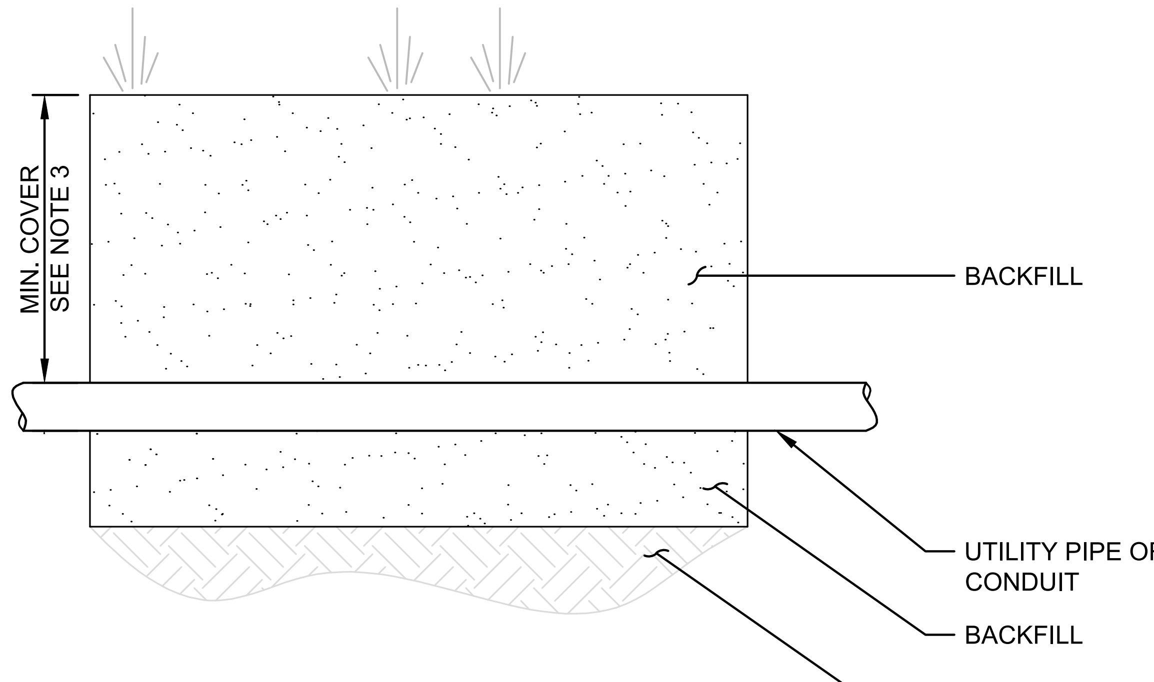
1. ALL PIPES OR CONDUIT SHALL BE LEAK-PROOF AND WATERTIGHT. ALL JOINTS SHALL BE SEALED OR GASKETED.

2. ALL PIPES SHALL BE PROPERLY PLACED AND BEDDED TO PREVENT MISALIGNMENT OR LEAKAGE. PIPE BEDDING SHALL BE INSTALLED IN SUCH A MANNER AS TO MINIMIZE THE POTENTIAL FOR ACCUMULATION OF WATER AND CONCENTRATED INFILTRATION.

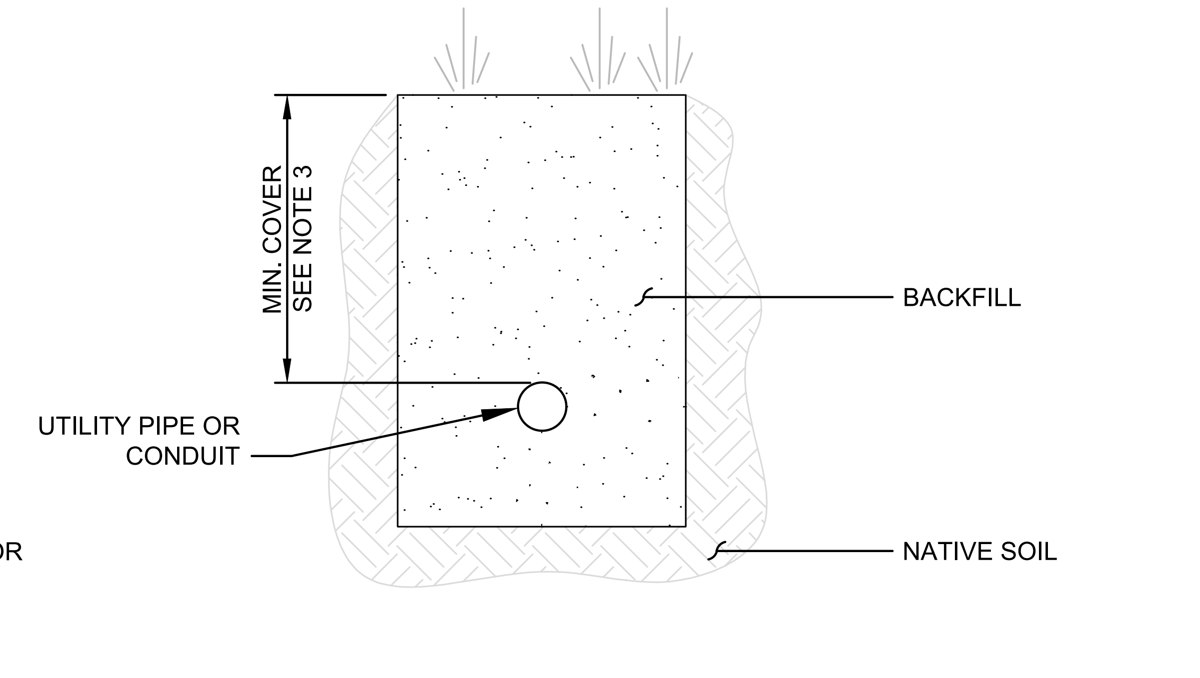
3. MINIMUM COVER ABOVE UTILITY SHALL BE BASED ON SPECIFIC UTILITY REQUIREMENTS.

4. TRENCHES SHALL BE BACKFILLED WITH BEDDING AND MATERIALS APPROVED BY MDE.

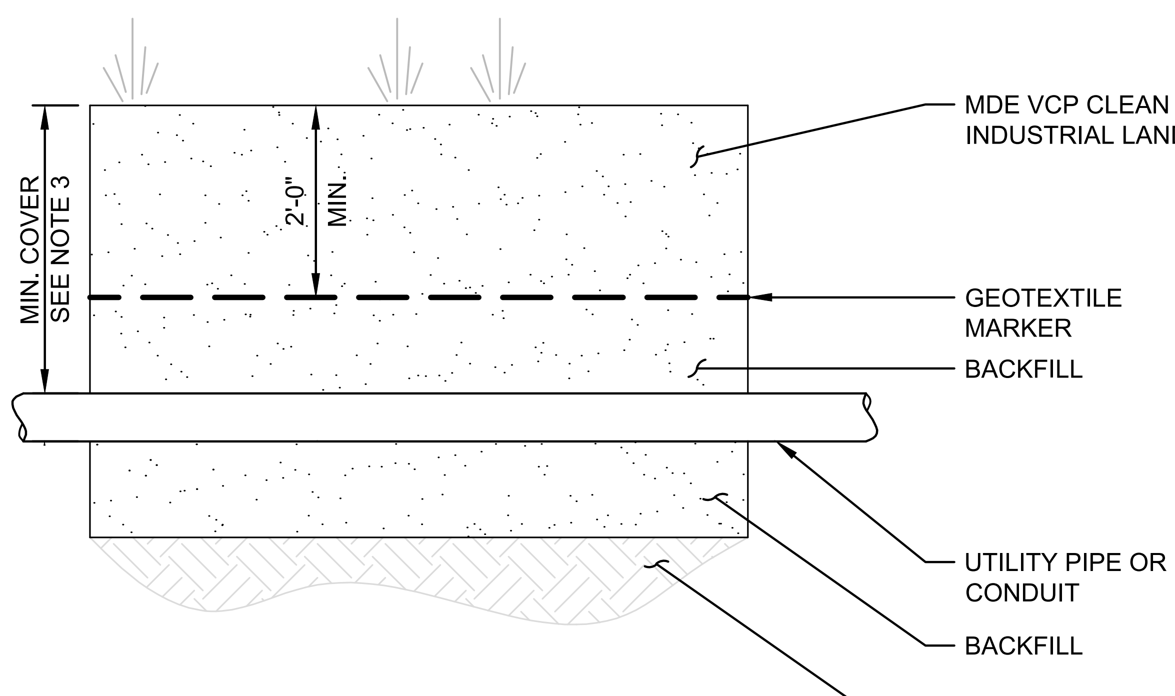
5. FOR ANY UTILITY SEGMENT WHICH GOES THROUGH AN AREA WHICH IS DESIGNATED TO RECEIVE A LANDSCAPED CAP, THE UPPER 2 FEET OF BACKFILL MUST MEET THE REQUIREMENTS OF MDE VCP CLEAN FILL FOR INDUSTRIAL LAND USE. IN THIS CASE THE MDE VCP CLEAN FILL WILL BE UNDERLAIN BY A GEOTEXTILE MARKER FABRIC. UTILITY SEGMENTS WHICH GO THROUGH AREAS WHICH DO NOT REQUIRE CAPPING OR ARE DESIGNATED TO RECEIVED A PAVED CAP WILL BE BACKFILLED WITH MATERIALS APPROVED BY MDE FOR THIS USE.



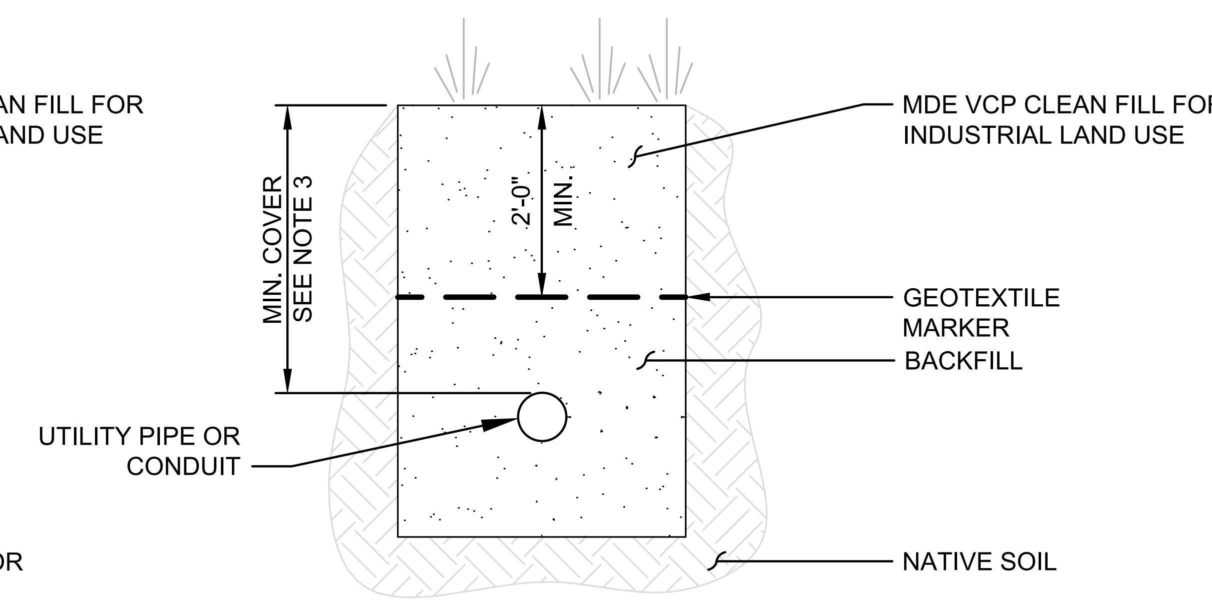
PROFILE : TYPICAL UTILITY TRENCH



SECTION : TYPICAL UTILITY



PROFILE : TYPICAL UTILITY TRENCH (SEE NOTE 5)



SECTION : TYPICAL UTILITY (SEE NOTE 5)

ARM Group LLC Engineers and Scientists	TYPICAL UTILITY CROSS SECTIONS Sparrows Point Site Tradepoint Atlantic	September 2020 1/2" = 1'-0" 160443M	Figure 1

APPENDIX H

<u>Utility Excavation NAPL Contingency Plan</u>

Revision 4 – June 19, 2017

Introduction:

Proposed underground utilities and excavations necessary for the redevelopment of the Tradepoint Atlantic property may encounter areas of petroleum and/or Oil & Grease contamination in soil. The assessment of total petroleum hydrocarbons (TPH) diesel range organics (DRO), gasoline range organics (GRO), Oil & Grease, and/or non-aqueous phase liquid (NAPL) completed as part of each Phase II Investigation includes the following:

- Each soil boring with evidence of NAPL (i.e., containing a sheen or free oil in the soil core), whether located near utilities or not, is investigated via the installation of a piezometer to assess mobility to groundwater. If measureable NAPL is present in the initial piezometer, additional soil borings and shallow temporary piezometers are installed surrounding the initial detection to delineate the impacts. Each piezometer installed to delineate the presence or absence of NAPL is checked with an oil-water interface probe immediately after installation, 48 hours after installation, and at least 30 days after installation.
- TPH-DRO/GRO and Oil & Grease data, once received, are assessed in their magnitude and location respective to subsurface utilities, stormwater conveyances, and surface waters.
- Locations that exhibit elevated detections of TPH/Oil & Grease or evidence of NAPL, that are within reasonable proximity (i.e. 25 feet) to subsurface utilities or stormwater conveyances and/or within reasonable proximity (i.e. 100 feet) to surface waters, are identified for further delineation and selective removal (if warranted).

Any NAPL identified in soil borings or piezometers during the Phase II Investigation would be noted on relevant logs and identified in Response and Development Work Plans for construction planning purposes. Despite these planning efforts, unidentified pockets of contamination (including NAPL) may still be encountered during construction. This contingency plan provides the procedures to be utilized during construction work to properly address response and construction techniques if any materials impacted with NAPL are encountered.

Objectives:

The purpose of this plan is to describe procedures to be followed in the event that NAPL is encountered in utility trenches or other excavations during development of the Tradepoint Atlantic property. The specific objectives of this plan and the procedures outlined herein are:

1. To ensure identification and proper management of Oil & Grease and petroleum-contaminated soils.
2. To ensure proper worker protection for working in areas of Oil & Grease and petroleum contamination.
3. To ensure that the installation of new utilities does not create new preferential flow paths for the migration of free-phase hydrocarbons (Oil & Grease, TPH-DRO/GRO, etc.) or soil vapors.

Identification of Oil & Grease and Petroleum Contaminated Soil:

An Environmental Professional (EP) will be on-site to determine if soils show evidence of the presence of Oil & Grease or TPH present as NAPL during installation of utility trenches or other excavation activities completed during development. Oil & Grease or petroleum-contaminated soils can be identified by the presence of free oil, oil staining, a petroleum odor, or any combination of these conditions. Free oil (NAPL) is liquid oil which could potentially be drained or otherwise extracted from the soil, and is the focus of this contingency plan, although severe staining accompanied by odors should be addressed via the same contingency measures provided herein (based on the judgement of the EP). The appearance of oil staining is not always consistent, but varies depending on the nature of the oil, the soil type, and the age of the release. Staining associated with old petroleum contamination often has a greenish hue, but may also be brown or black. The olfactory sense is the most sensitive instrument for identifying petroleum contamination in the field. Therefore, a petroleum odor may be noted although there is no visible sign of oil or staining. In some instances, decaying organic matter can produce an odor similar to petroleum, but this is rare.

If NAPL is encountered during construction, the extent of impacts shall be delineated by excavating trenches or installing four soil borings (two in each direction) perpendicular to the utility alignment or excavation to examine the soil for physical evidence of NAPL. Perpendicular transects will be investigated every 50 feet along the section of the utility trench or excavation where there is physical evidence of NAPL. Each transect will extend to a distance of 10 feet from the edge of the utility trench or excavation. This represents the maximum distance which would require mandatory excavation to mitigate potential migration risks (see below).

NAPL delineation will be guided primarily by screening observations from the perpendicular borings or trenches, and samples will be collected to test for extractable Oil & Grease or petroleum-contaminated soil using the Oil Sticks™ test kit. This test kit provides a determination of whether hydrocarbons are present in soil and extractable (i.e. could mobilize as a NAPL). Oil Sticks™ change from a pale blue to a deep blue color when they come in contact with free product. This instantaneous change in color occurs even when miniscule amounts of product come in contact with the strip. The sensitivity of Oil Sticks™ to determine the presence/absence of oil is reported by the manufacturer to be about 1,000 to 2,000 mg/kg. The field test is performed by placing approximately 3 tablespoons of soil in a clean sample cup and adding enough water to cover the sample. After stirring the sample and waiting ~1 minute, the Oil Sticks™ test strip should be swished through the water, making sure to touch the strip to the sides of the cup where product may collect at the interface (meniscus) between the cup, water, and air. If the strip turns deep blue, or deep blue spots appear, oil or hydrocarbon is present. However, the MDE has observed that the Oil Sticks™ method may produce inconsistent results. Therefore, documentation of all screening methods is necessary during boring/trenching work. This documentation shall include an accurate record of visual and olfactory screening, along with a narrative with photographs. Field screening will be aided by photoionization detector (PID) results, and Oil Sticks™ samples should be biased to target elevated PID readings, if any. The agencies have requested that all soil samples prepared for the Oil Sticks™ field test be photographed for evidence of sheen/residue on the cup sides. Detailed records are required to be submitted with the project-specific Completion Report.

If petroleum or Oil & Grease impacts are identified in Site soils based on use of the Oil Sticks™ test kit or other field screening methods, disposal requirements will be determined using the quantitative PetroFLAG™ hydrocarbon analysis system or fixed laboratory analysis (see following section). The PetroFLAG™ hydrocarbon analysis system is a broad spectrum field test kit suitable for TPH contamination regardless of the source or state of degradation (Dexsil Corporation). PetroFLAG™ field test kits do not distinguish between aromatic and aliphatic hydrocarbons, but quantify all fuels, oils, and greases as TPH. Dilutions can be used to determine concentrations of TPH/Oil & Grease above the normal calibration range. Dexsil notes that positive results for TPH may occur if naturally occurring waxes and oils, such as vegetable oils, are present in the sample. Additional detail regarding the procedure for the PetroFLAG™ kit is given in **Attachment 1**.

Soil Excavation, Staging, Sampling and Disposal:

The EP will monitor all utility trenching and excavation activities for signs of potential contamination. In particular, soils will be monitored with a hand-held PID for potential VOCs, and will also be visually inspected for the presence of staining, petroleum waste materials, or other indications of NAPL contamination that may be different than what was already characterized. Excavated material that is visibly stained or that exhibits a sustained PID reading of greater than 10 ppm will be segregated and containerized or placed in a stockpile on polyethylene or impervious surface until the material can be analyzed using the PetroFLAG™ test kit to characterize the material for appropriate disposal. If a PetroFLAG™ test kit is not available to the contractor, or if the contractor prefers to use fixed laboratory analysis, samples may be characterized via submittal to a laboratory for TPH/Oil & Grease analysis. However, any excavated material containing NAPL (i.e., containing free oil) cannot be characterized for waste disposal using the PetroFLAG™ test kit and must instead be characterized via fixed laboratory analysis, as described in the final paragraph of this section. In addition, any hydrocarbon contaminated soil discovered during construction activities that was not previously characterized must also be analyzed for PCBs prior to removal and transport to an appropriate disposal facility. If excavated and stockpiled, such materials will be covered with a plastic tarp so that the entire stockpile is encapsulated, and anchored to prevent the elements from affecting the integrity of the containment. The MDE will be notified if such materials are encountered during utility work.

Soil exhibiting physical evidence of NAPL contamination or elevated TPH/Oil & Grease with detections in the low percentage range, which is located within 10 feet of a proposed new utility or subsurface structure (i.e., foundation, sump, electrical vault, underground tank, etc.), will be excavated and segregated for disposal at the on-site nonhazardous landfill (Greys Landfill) or an off-site facility pending the completion of any required PCB analytical testing. Impacted soil which is located greater than 10 feet away from the proposed utility or subsurface structure may be left in place and undisturbed. The extent of the excavation will be determined in the field following visual/olfactory screening supplemented by the PID and Oil Sticks™ test kit, but soil disposal requirements will be determined with the PetroFLAG™ test kit (since the Oil Sticks™ method is not quantitative) or via fixed laboratory analysis for TPH/Oil & Grease (if preferred by the contractor or if the PetroFLAG™ test kit is unavailable to the contractor).

Any recovered NAPL will be collected for off-site disposal. As required by the appropriate and MDE approved facility, samples impacted by NAPL (i.e., containing free oil) will be collected for profiling/waste characterization and submitted to a fixed laboratory, as mentioned above, for the following analyses: metals, VOCs, TPH-DRO/GRO, and/or additional analysis required by the selected disposal facility. Upon receipt of any additional characterization analytical results, the MDE will be notified of the proposed disposal facility. Non-impacted material with no evidence of NAPL (i.e. soils that may contain measureable concentrations of TPH/Oil & Grease but below percentage levels) may be placed on the Site in areas to be paved or capped as long as all other requirements specified in the Response and Development Work Plan (or similar governing document) are met.

Initial Reporting:

If evidence of NAPL in soil or groundwater is encountered during excavation, it will be reported to the MDE within two hours. Information regarding the location and characteristics of any NAPL contaminated soil will be documented as follows:

- Location (exact stationing);
- Extent of contamination (horizontally and vertically – prepare a sketch including dimensions);
- Relative degree of contamination (i.e. free oil with strong odor vs. staining); and
- Visual documentation (take photographs and complete a photograph log)

Utility Installations in Impacted Areas:

Underground piping or conduits installed through areas of Oil & Grease or petroleum contamination shall be leak proof and water tight. All joints will be adequately sealed or gasketed, and pipes or conduits will be properly bedded and placed to prevent leakage. All trench backfill will meet the MDE definition of clean fill, or otherwise be approved by the MDE. Pipe bedding will be installed to minimize the potential for accumulation of water and concentrated infiltration. This can be achieved by using a relatively small amount of low-permeability pipe bedding; open-graded stone will be avoided or only used in thicknesses of 6 inches or less. Bedding must be properly placed and compacted below the haunches of the pipe. Clay, flowable fill, or concrete plugs will be placed every 100 feet across any permeable bedding to minimize the preferential flow and concentration of water along the bedding of such utilities.

If required, each trench plug will be constructed with a 2-foot-thick clay plug or 1-foot-thick flowable fill or concrete plug, perpendicular to the pipe, which extends at least 1 foot in all directions beyond the permeable pipe bedding. The plug acts as an anti-seep collar, and will extend above the top of the pipe. Installation of each trench plug will follow the completion of the trench excavation, installation of granular pipe bedding (because dense-graded aggregate or soil or other pipe bedding is difficult to properly compact below the haunches of the pipe), and seating of the pipe. The trench plug will then be installed by digging out a 1-foot trench below and around the pipe corridor, and placing clay, flowable fill, or concrete to construct the plug. A specification drawing for installation of the trench plug has been provided as **Figure 1**.

Attachment 1 - PetroFLAG™ Procedure

PetroFLAG™ field test kits use a proprietary turbidimetric reaction to determine the TPH concentration of solvent extracted samples (USEPA). Calibration standards provided with the unit are used to perform a two-point calibration for the PetroFLAG™. A blank and a 1,000 ppm standard are run by the analyzer unit to create an internal calibration curve.

Analysis of a soil sample is performed using three simple steps: extraction, filtration, and analysis. The PetroFLAG™ analysis is performed as follows:

- Place a 10 gram soil sample in a test tube.
- Add extraction solvent to the tube.
- Shake the tube intermittently for four minutes.
- Filter the extract into a vial that contains development solution
- Allow the solution to react for 10 minutes.

The filtration step is important because the PetroFLAG™ analyzer measures the turbidity or "optical density" of the final solution. Approximately 25 samples can be analyzed per hour. The vial of developed solution is placed in the meter, and the instrument produces a quantitative reading that reveals the concentration of hydrocarbons in the soil sample. The PetroFLAG™ method quantifies all fuels, oils, and greases as TPH between 15 and 2000 ppm (Dexsil Corporation). A 10x dilution of the filtered extraction solvent will be completed to allow for quantification of soil concentrations in excess of 10,000 ppm. The specially designed PetroFLAG™ analyzer allows the user to select, in the field, the response factor that is appropriate for the suspected contaminant at each site. Vegetable-based oils have been shown to exhibit a response factor of 18% (EPA Method 9074). Using the selected response factor, the analyzer compensates for the relative response of each analyte and displays the correct concentration in parts per million (ppm).

References:

U.S. Environmental Protection Agency (EPA). Contaminated Site Clean-up Information (Clu-IN): Test Kits. Office of Superfund Remediation and Technology Innovation. http://www.clu-in.net/characterization/technologies/color.cfm

Dexsil Corporation. 2016. PetroFLAG Analyzer System (PF-MTR-01). http://www.dexsil.com/products/detail.php?product_id=23

EPA SW-846 Method Number 9074 - Turbidimetric Screening Procedure for Total Recoverable Hydrocarbons in Soil

GENERAL NOTES:

1. ALL PIPES OR CONDUIT PASSING THROUGH AREAS OF PETROLEUM CONTAMINATION SHALL BE LEAK-PROOF AND WATERTIGHT. ALL JOINTS SHALL BE SEALED OR GASKETED.

2. ALL PIPES SHALL BE PROPERLY PLACED AND BEDDED TO PREVENT MISALIGNMENT OR LEAKAGE. PIPE BEDDING SHALL BE INSTALLED IN SUCH A MANNER AS TO MINIMIZE THE POTENTIAL FOR ACCUMULATION OF WATER AND CONCENTRATED INFILTRATION.

3. ANTI-SEEP COLLARS FROM THE PIPE MANUFACTURER, THAT ARE PRODUCED SPECIFICALLY FOR THE PURPOSE OF PREVENTING SEEPAGE AROUND THE PIPE, ARE ACCEPTABLE IF INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, AND ONLY WITH PRIOR APPROVAL BY TPA.

4. MINIMUM COVER ABOVE UTILITY SHALL BE BASED ON SPECIFIC UTILITY REQUIREMENTS.

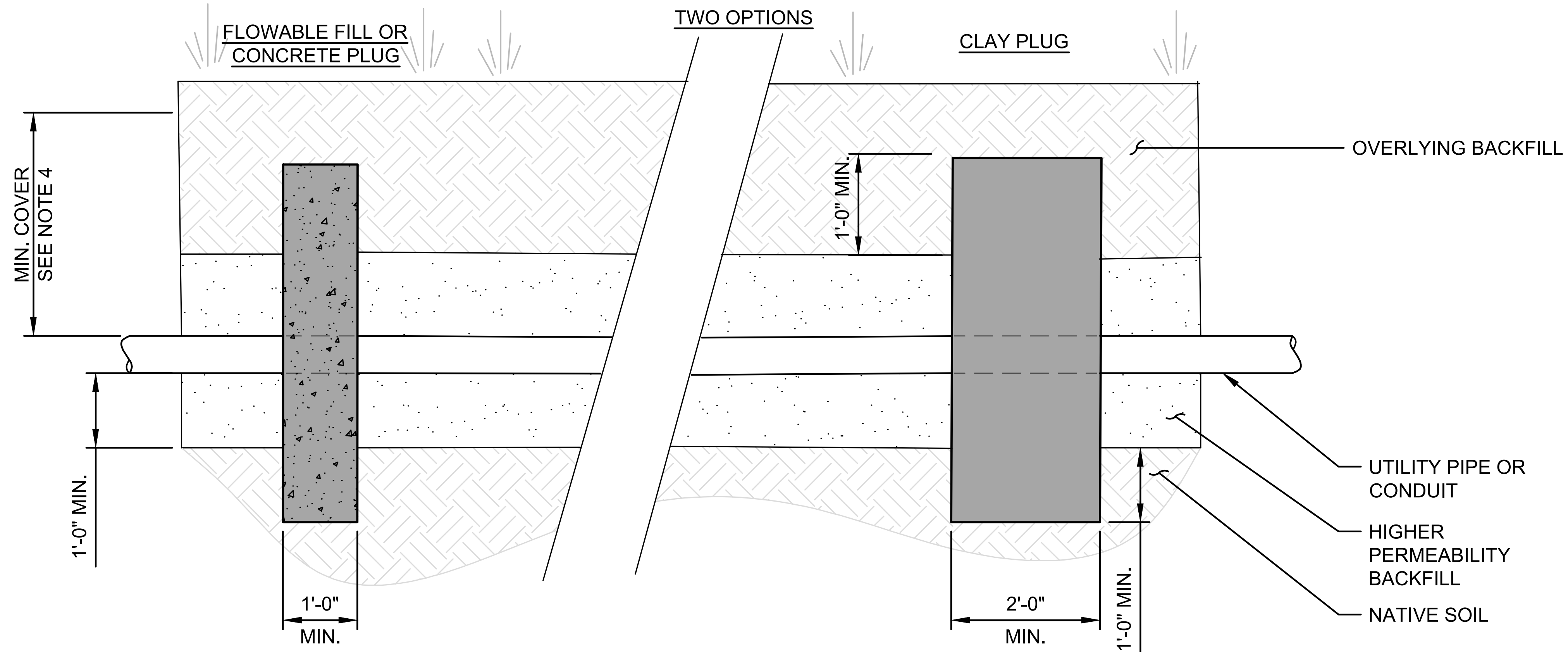
5. TRENCHES SHALL BE BACKFILLED WITH BEDDING AND MATERIALS APPROVED BY MDE.

6. FOR ADDITIONAL REQUIREMENTS, INCLUDING THE USE OF MDE VCP CLEAN FILL FOR INDUSTRIAL LAND USE AND INSTALLATION OF GEOTEXTILE MARKER FABRIC, REFER TO NOTE 5 ON THE TYPICAL UTILITY CROSS SECTIONS.

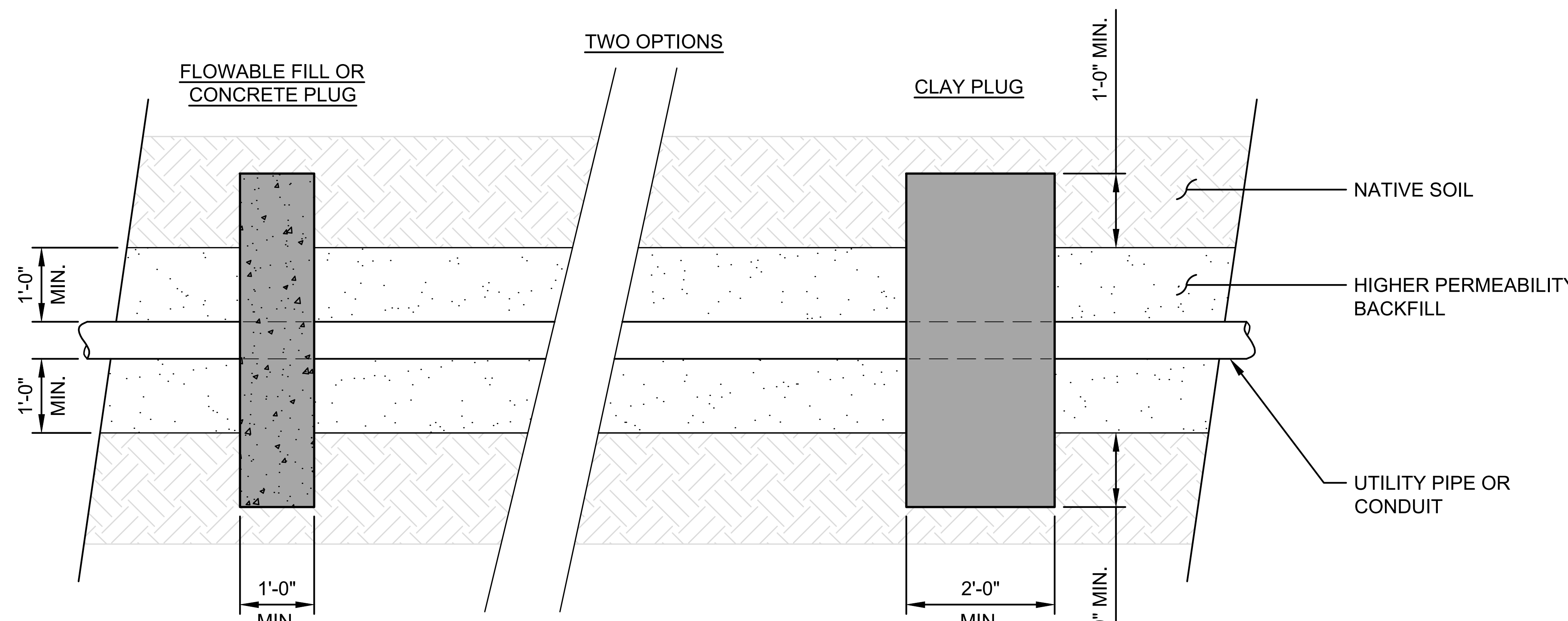
7. ALL UTILITIES INSTALLED THROUGH AREAS CONTAINING NAPL OR ELEVATED CHEMICAL IMPACTS WITH THE POTENTIAL TO TRANSMIT VAPORS ALONG PREFERENTIAL FLOW PATHWAYS SHALL BE EITHER 1) BACKFILLED WITH LOW PERMEABILITY BACKFILL MATERIAL (LESS THAN OR EQUAL TO THE PERMEABILITY OF THE EXISTING SUBGRADE), OR 2) INSTALLED WITH TRENCH PLUGS ALONG THE ALIGNMENT IN ACCORDANCE WITH THE DETAILS SHOWN ON THIS PLAN AND THE FOLLOWING NOTES:

   A.) UTILITY TRENCH PLUGS SHALL BE INSTALLED AT 100-FOOT (MAX.) INTERVALS THROUGH ALL AREAS OF NAPL CONTAMINATION.

   B.) UTILITY TRENCH PLUGS SHALL EXTEND A MINIMUM OF 1-FOOT IN ALL DIRECTIONS BEYOND ANY HIGHER PERMEABILITY BACKFILL MATERIALS (I.E., MATERIALS EXCEEDING THE PERMEABILITY OF THE EXISTING SUBGRADE).



SECTION : TYPICAL UTILITY TRENCH PLUG



PLAN : TYPICAL UTILITY TRENCH PLUG

ARM Group LLC
Engineers and Scientists

UTILITY TRENCH PLUG Sparrows Point Site Tradepoint Atlantic	September 2020 Not to Scale 160443M	Figure 1

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